



GENERAL EMBRYOLOGICAL INFORMATION SERVICE

**AN INTERNATIONAL DIRECTORY
OF CURRENT RESEARCH
IN DEVELOPMENTAL BIOLOGY**

VOLUME 17, part 1

EUROPE

data collected during 1977

Utrecht-Netherlands

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**Issued by the Hubrecht Laboratory
on behalf of the
General Embryological Information Service Foundation**

Utrecht-Netherlands

SUBJECT COVERAGE

Invertebrates, Vertebrates, and Man
developmental biology, including:

descriptive embryology
experimental embryology
physiological embryology

developmental genetics
developmental pathology and teratogenesis

metamorphosis
regeneration
asexual reproduction and development

Plants and Unicellular Organisms

experimental morphology
developmental physiology

Edited by Dr. J. Faber,
Deputy Director of the Hubrecht Laboratory

Managing Editor: B. Z. Salomé

Hubrecht Laboratory
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INTRODUCTION

Each volume of the General Embryological Information Service is issued in two parts: *Part 1* contains the data on research workers in Europe. The Subject Index of this part refers to the research subjects of European investigators only.

Part 2 will contain the data on investigators in all countries outside Europe, and will be organised in the same manner as part 1.

In the *research subjects* the wording used by the investigators was generally retained, but some changes have been made in order to save space. Repetitions of words and parts of entries giving too much detail were omitted; phrases such as: "research on . . ." or "studies of . . ." were cancelled; often methods were put in brackets at the end of the entry. Inevitably these condensations have caused a certain loss of information, but we feel that clarity is not seriously impaired.

For the names of higher taxa of *experimental animals* the following books have been consulted: L. A. Borradaile and F. A. Potts, *The Invertebrates* (4th ed., 1963), and J. Z. Young, *The Life of Vertebrates* (2nd ed., 1962). Lord Rothschild, *A Classification of Living Animals* (2nd ed., 1965) was also of much use.

Generally the highest taxon given at the end of the entry is the class, but in *Angiospermae* it is the family, in *Mammalia*, *Reptilia*, *Amphibia*, and *Insecta* the order, while in *Crustacea* and *Arachnida* both the class and the order are listed.

Some changes have been made in the *Subject Index*. In previous issues all the work on *plants* and on *unicellular organisms* was brought together under one Heading each, whereas the other Headings served *multicellular animals* only. Starting with this issue *plants* and (other) *unicells* are treated in the same way as *Metazoa*; see the list of New Headings on page 137.

The number of Subject Headings has been augmented by using some of the former cross references (see) as Headings in this issue.

Since the G.E.I.S. covers a much wider field of developmental biology than embryology alone, the title of the periodical might be considered inadequate or even confusing. We felt, however, that a well-known title should rather not be changed, and therefore added an explanatory subtitle: *An international directory of current research in developmental biology*.

For many years the number of research workers listed in the Directory of Names rose at a rate of about 10 percent every two years. From volume 15 (1973/74) onwards the increase has been no more than 3 percent. We think this decrease reflects a stagnation in the growth of research facilities in many parts of the world. Also the number of books on developmental biology published in one year is no longer increasing.

We feel this is the place to say a few words about the *Enquiry on the utility of: Central Embryological Library (CEL) and General Embryological Information Service (GEIS)*, which was held in October 1976 and proved to be a success thanks to the co-operation of many developmental biologists. Forms were sent to the 3,200 persons listed in volume 16 of the GEIS, of whom about 35 percent responded by returning completed forms, often supplemented by valuable remarks.

In general the outcome of the enquiry was very positive. Here we only mention the results on the GEIS, but those on the CEL were equally encouraging.

The analysis of the results show that exactly half of the responders use the GEIS; information in every section is consulted by more than 80 percent of the users, while 90 percent of them are reasonably well satisfied with the information supplied.

This result encourages us to continue publishing the periodical in its present form. However, the financial situation is a cause for concern. On the one hand the production costs are still rising, while on the other hand more and more scientists in various countries apparently can no longer afford to pay the increasing subscription rates. An increasing number of subscribers are in arrears.

We hope to be able partly to alleviate the rise in production costs by the use of typescript offset and by computer-aided processing methods.

Although the interest shown by developmental biologists through the Enquiry is encouraging, a constant and sufficient number of *paying subscribers* remains the only basis on which we can continue the Service.

J. Faber
B. Z. Salomé

CHANGES OF ADDRESS IN COUNTRIES OUTSIDE EUROPE

received since the appearance of volume 16, part 2

- BAKER, W. K.; Ph.D., Prof. — Dept. of Biol., Univ. of Utah, SALT LAKE CITY, UT 84112, USA
CUNHA, G. R.; Ph.D. — Dept. of Anat., Univ. of Colorado, 4200 East 9th Ave., DENVER, CO 80262,
USA
DOANE, Ms. W. W.; Ph.D. — Dept. of Zool., Arizona State Univ., TEMPE, AZ 85281, USA
GUNBERG, D. L.; Ph.D., Prof. — Anat. Dept., School of Dent., Univ. of Oregon, 611 S.W. Campus
Drive, PORTLAND, OR 97201, USA
IDE, C.; M.D. — Dept. of Anat., Milton S.Hershey Med. Ctr., Pennsylvania State Univ., HERSHEY,
PA 17033, USA
JACOBSSON, M.; Ph.D., Prof. — Dept. of Anat., Coll. of Med., Univ. of Utah, SALT LAKE CITY,
UT 84132, USA
LAKSHMANAN, K. K.; Ph.D., Prof. — Dept. of Bot., Postgrad. Ctr., Univ. of Madras, COIMBATORE
641004, India
LEWIS, C. A.; Ph.D. — Zool. Dept., San Diego State Univ., SAN DIEGO, CA, USA
McKINNELL, R. G.; Ph.D., Prof. — Dept. of Genet. and Cell Biol., Univ. of Minnesota, ST. PAUL, MN
55108, USA
OKADA, M.; Ph.D. — Inst. of Biol. Sci., Univ. of Tsukuba, SAKURA, Ibaraki Pref., 300-31 Japan
PICCIANO, D. J. — Occupation. Health and Med. Res., B-1222, Dow Chemical USA, Texas Div.,
FREEPORT, TX 77541, USA
REESE, D. H.; Ph.D. — Natl. Cancer Inst., N.I.H., Bldg.37, Rm 3 Co2, BETHESDA, MD 20014, USA
THEIL, E. C.; Ph.D., Assoc. Prof. — Dept. of Biochem., N.Carolina State Univ., Box 5050, RALEIGH,
NC 27607, USA
TOERIEN, M. J.; Ph.D., D.Sc., Prof. — Dept. of Anat., Univ. of the Orange Free State, BLOEMFON-
TEIN, S.Africa; deceased
WATSON, A. G. — Dept. of Anat., New York State Coll. of Vet. Med., Cornell Univ., ITHACA, NY
14853, USA

DIRECTORY OF NAMES AND ADDRESSES with Subjects of Research

(alphabetical order)

Unless stated otherwise, information in this directory is based upon data sheets which were sent to the institutes listed in the Directory of Institutes, and returned to the editors before July 1977. Scientists were asked to state their name, degree(s), address, and research subjects in so far as recent, unpublished work in developmental biology was concerned.

Complete entries (with research subjects) are entirely based on the data sheets. Subjects identical to those in vol. 16 were confirmed by the scientists still to be correct.

Entries without research subjects:

- a. Persons listed on the sheets as being engaged in research in developmental biology, without further specification of subjects.
- b. Persons with a complete entry in vol. 16 who have not returned their sheets. Name, degrees, and addresses were reprinted unchanged from vol. 16 and may be partially out of date.
- c. Emeritus professors no longer active in research.
- d. Some persons who have not returned data sheets for two or more volumes have been listed nevertheless; cases in point are several I.S.D.B. members.
- e. Persons listed in vol. 16 whose death has come to our attention (marked †).

Persons listed in vol. 16 but not in vol. 17:

- a. Persons who had research subjects in vol. 16 but are no longer engaged in research in developmental biology.
- b. Persons who had no research subjects in vol. 16 and have not returned the sheets for both vol. 16 and 17.

The abbreviation Ms. in names stands for Miss or Mrs.

- ABERCROMBIE, M. — Strangeways Res. Lab., Worts Causeway, CAMBRIDGE CB1 4RN, England
a Cell relations in tissue culture. *Gallus gallus* (Aves), *Mus musculus* (Rodentia) (with G. A. DUNN and J. P. HEATH)
- ABRAHAM, Ms. I.; Ph. D. — Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahinstr. 8, 3012 BERN, Switzerland
a Albumin synthesis during metamorphosis. *Xenopus laevis* (Anura) (with R. WEBER)
- ABRO, A. — Inst. of Anat., Univ. of Bergen, Arstadvei 19, 5000 BERGEN, Norway
a Testis development and spermatogenesis. *Erinaceus europaeus*, *Sorex* spec., *Neomys* spec. (*Insectivora*)
- ABRUNHOSA, R.; M. D. — Inst. of Anat., Fac. of Med., Univ. of Porto, Asprela, PORTO, Portugal
a Ultrastructure of the epithelio-mesenchymal interface during early organogenesis. *Mus musculus* (Rodentia)
b Thymus development. Same species as a
c Transport and fate of ultrastructural tracers injected in the embryonic cardiovascular system. Same species as a
- ACCORDI, Ms. F.; Dr.nat.sci. — Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA (7), Italy
- ACHERMANN, I.; Dipl.nat. — Zool.-Vergl. Anat. Inst., Univ. Zürich, Kästlergasse 16, 8006 ZÜRICH, Switzerland
- ADAMS, C. E.; Dr. — A.R.C. Unit of Reprod. Physiol. and Biochem., 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- ADAMSON, Ms. E. D.; Ph.D. — Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England

- a Biochemical differentiation in teratoma cells in vitro: 1. appearance of tissue-specific markers, such as acetylcholinesterase, creatine phosphokinase and aldolase; 2. appearance of endoderm-specific biochemical markers for example alpha-fetoprotein and basement membrane associated products such as collagen. *Mus musculus* (Rodentia)
- ADINOLFI, M.; M.D., Ph.D. – Paediat. Res. Unit., Guy's Hosp. Med. School, Guy's Tower, LONDON SE1 9RT, England
- a Ontogeny of components of complement and lysozyme, using in vitro cultures of fetal tissues and analysis of the newly synthesized proteins by means of autoradiography of immunoelectrophoretic plates. *Homo sapiens* (Primates)
- b Fetal proteins, particularly alpha-fetoprotein (AFP). *Homo sapiens* (Primates), *Mus musculus* (Rodentia)
- c Immunology of the ontogeny and phylogeny of alcohol dehydrogenase (ADH) isozymes. (Mammalia)
- AFZELIUS, B. A.; Fil.Dr. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Fine structure of germ cells. (Lower Invertebrata)
- AIMAR, C.; D.Sc. – Lab. d'Immunol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Nucleo-cytoplasmic interactions during embryonic development, studied by nuclear grafting. (Urodea)
- b Cytoplasmic control of first phases of cleavage. (Urodea)
- AISENSTADT, T. B. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Effect of gonadotropins and changes in the germinal vesicle and in the oocyte cytoplasm during maturation. (Acipenseridae, Chondrostei; Amphibia) (with M. N. SKOBLINA)
- b Oogenesis. *Hydra oligactis* (Hydroza)
- AKHABADZE, L. V.; Cand.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R.
- a Development and teratology of the iris and ciliary body in organ culture. *Rattus norvegicus* (Rodentia) (with O. G. STROEVA)
- ALBANESE CARMIGNANI, Ms. M. P.; Prof. – Ist. di Zool. e di Anat. Comp., Univ. di Messina, Via dei Verdi 75, 98100 MESSINA, Italy
- a Histochemical distribution of the enzymes of carbohydrate metabolism in the Golgi zones of yolk globules. *Aplysia depilans* (Gastropoda)
- ALBERT, J.; D.Sc. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
- a Analyse expérimentale de la régionalisation de l'appareil digestif. (Anura)
- b Interactions endo-mésodermiques. *Rana dalmatina* (Anura)
- c Établissement de l'asymétrie chez l'embryon. (Anura)
- d Culture in vitro du massif endodermique. Même espèce comme b
- e Ultrastructure de l'intestin larvaire. (Anura)
- ALEKSEEVA, Ms. N. P. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Embryology. (Lubomirskidae, Porifera)
- ALEXANDRE, H. L. – Dept.of Molec.Biol., Free Univ.of Brussels, 67 rue des Chevaux, 1640 RHODE-ST.-GENÈSE, Belgium
- a In vivo and in vitro maturation of oocytes (autoradiography, biochemistry). *Mus musculus* (Rodentia)
- b Trophoblast determination during preimplantation development in vitro (cytochemistry, autoradiography, electron microscopy, biochemistry). Same species as a
- c Sensitivity to X-rays during early embryonic stages (electron microscopy, cytochemistry, autoradiography, biochemistry). Same species as a
- ALEXANDRU, Ms. C.; Dr.med. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv.Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania
- a Experimental teratology of the central nervous system. *Gallus domesticus* (Aves)
- b Development of cerebral vesicles. Same species as a
- ALFEI (TORCIA), Ms. L.; Ph.D. – Ist. di Anat. Comp. "Battista Grassi", Univ. di Roma, via A. Borelli 50, 00161 ROMA, Italy
- a The development and pattern of movements in the embryo. *Salmo gairdneri* (Teleostei)
- ALLÉAUME (BORDES), Ms. N.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Descriptive embryology of the thermosensitive mutant 1122. *Drosophila* spec. (Diptera)
- ALPI, A. – Ist. di Orticolt. e Floricolt., Univ. di Pisa, Viale delle Piagge 23, 56100 PISA, Italy
- a Gibberellin and cytokinin levels and identification in suspensor. *Phaseolus multiflorus* (Papilionaceae)
- ALVAREZ-GUISADO, L.; Med. Dr. – Inst. F.Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
- a Normal and abnormal perinatal heart. *Homo sapiens* (Primates)
- AMBROSI, G.; M.D. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy
- a Morphological and experimental research on conjunctival papillae and scleral ossicles. *Gallus domesticus* (Aves)
- b Relationships between vascular and cytoarchitectural patterns during development of spinal cord under normal and experimental conditions. Same species as a
- c Vascular patterns in ganglia of the visceral nervous system. Same species as a

- AMELS, Ms. D.; M.D. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv.Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Experimental teratology and teratological screening. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- AMER, M.; M.Sc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Control of vascular histogenesis: 1. working of normal cambium; 2. neoformation of cambium; 3. differentiation of various kinds of xylem cells (hormonal control). *Gleditsia triacanthos* (Leguminosae)
- AMOROSO, E. C.; F.R.S., Prof. – A.R.C. Inst. of Anim. Physiol., Brabraham, CAMBRIDGE CB2 4AT, England
- a Immunology of trophoblast
- AMPRINO, R. M.; M.D., Prof. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy
- a Relations between ectoderm and mesoderm in wing morphogenesis. *Gallus domesticus* (Aves)
- b Regulative capacities of the wing anlage. Same species as a
- c Relations between cell density and cell proliferation in the limb bud. Same species as a
- ANDERSEN, Ms. L.; DDS – Dept. of Oral Pathol., Royal Dent. Coll., Vennerlyst Blvd., 8000 ARHUS C, Denmark
- a Migrating epithelial cells in palatal wounds: cytology; scanning electron microscopy; morphometry; treatment with anti-neutrophilic serum. *Cavia porcellus* (Rodentia) (with O. FEJERSKOV)
- ANDRE, F.; D.Sc., Prof. – Lab. de Zool.A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Sexual differentiation in hermaphrodites. *Eisenia* spec., *Dendrobaena* spec., *Lumbricus* spec., *Allolobophora* spec. (Oligochaeta), *Planorbis* spec., *Lymnaea* spec. (Gastropoda)
- ANDRIEUX, B.; Dr.3è cycle – Lab. d'Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY-sur-SEINE, France
- a Organogenèse et cytodifférenciation de l'hypophyse (microchirurgie, cytologie ultrastructurale). *Pleurodeles waltli* (Urodea)
- ANDRIEUX, Ms. N.; Lic.ès Sci. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France
- ANGELIER-DELOBEL, Ms. N.; Dr.3e Cycle – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivry, 67 rue M.Günsbourg, 94200 IVRY-sur-SEINE, France
- a Transcription: visualization of nucleolar and chromosomal genes in oocytes; action of inhibitors on nuclear RNA biosynthesis. *Pleurodeles waltli*, *P. poireti* (Urodea)
- ANTILA, E. J.; M.Sc. – Dept. of Med. Biol., Univ. of Helsinki, Siltavuoren penger 20A, 00170 HELSINKI 17, Finland
- a Steroid metabolism studied by incubation with labelled precursors, gas chromatography and TLC in oocytes, embryo and larva of *Xenopus laevis*, *Rana temporaria*, *Triturus vulgaris* (Amphibia), in preimplantation stages of *Mus musculus* (Rodentia), and in embryos of *Gallus domesticus* (Aves) and *Salmo gairdneri* (Teleostei)
- ANTON, H. J.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
- a Protein metabolism during regeneration processes. *Triturus vulgaris*, *T. alpestris* (Urodea)
- b Amino acid metabolism in regenerating tissues. *Ambystoma mexicanum*, *Triturus vulgaris* (Urodea)
- c DNA synthesis and cell cycle determination in regenerating systems. Same species as a
- APEKIN, V. S. – All-Union Res. Inst. of Marine Fish. and Oceanogr. (VNIRO), Lab. of Physiol. and Biochem. of Fishes, V.Krasnoselskaya St.17, MOSCOW 107140, U.S.S.R.
- a Experimental and immunological study of maturation processes. *Gobius melanostomus*, *G. batrachocephalus*, *Mugil cephalus*, *M. auratus* (Teleostei)
- ap GWYNN, I.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, U.K.
- a Function of mitotic apparatus proteins in the interphase part of the cell cycle.
- b Modifications of cell surfaces during cell cycle and differentiation (electron microscope micro-analysis)
- APPLEBY, D. W.; Ph.D. – Inst. Suisse de Rech. Exp. sur le Cancer, Unité de Biol. du Dével., ch.Boveresses, 1066 EPALINGES, Switzerland
- a Size of chromatin subunits in epithelial and fiber cell populations of developing lens; characterization of various chromatin proteins. *Gallus gallus* (Aves) (with S. P. MODAK)
- ARANEGA-JIMENEZ, Ms. A. – Inst. F.Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
- a Experimental embryology of late periods of heart morphology. *Gallus gallus* (Aves)
- ARNOLDS, W. J. A.; M.Sc. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Paduaalaan 8, UTRECHT, Netherlands
- a Genomic control of early development studied by X-irradiation induced lethal mutants. *Lymnaea stagnalis* (Gastropoda)
- ARRU, Ms. A.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
- ARTAVANIS-TSAKONAS, S.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Cloning of insect DNA in *E.coli*. *Drosophila melanogaster* (Diptera)
- b Biochemical analysis of early development. Same species as a
- ARTIS, J. P. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
- a Regeneration of teeth from their germs in adults. *Cavia porcellus* (Rodentia)
- ASHBURNER, M.; Ph.D. – Dept. of Genet., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EH, England

- a Control of gene action during development, especially studied in puffing. *Drosophila melanogaster* (Diptera)
- b Chromosome function during development. *Anopheles stephensi* (Diptera)
- ASHBY, K. R.; Ph.D. – Dept. of Zool., Univ. of Durham, Science Labs., South Rd., DURHAM DH1 3LE, England
- a The development of the reproductive system and the modifications induced by treatment with steroid hormones during the course of sexual differentiation. *Salmo irideus*, *S. trutta* (Teleostei); *Xenopus laevis* (Anura)
- ASHWORTH, J. M.; Dr., Prof. – Biol. Dept., Univ. of Essex, Wivenhoe Park, COLCHESTER, Essex CO4 3SQ, England
- a Effect of growth conditions (especially glucose) on development of amoebae. *Dictyostelium discoideum* (Aerasiales)
- b Cytogenetics. Same species as a
- c Relationship between cell cycle and development. Same species as a
- AUGSTEN, H.; Dr.habil., Prof. – Sekt. Biol.-Pflanzenphysiol., Friedrich Schiller Univ., von-Hase-Weg 3, 69 JENA, D.R.R. (Germany)
- AUGUSTI (TOCCO), Ms. G.; Dr. – Lab. of Molec. Embryol., Consiglio Naz. delle Richerche, via Toiano 2, ARCO FELICE, C.P.3042, 80100 NAPOLI, Italy
- a Mechanisms regulating the expression of differentiated functions in neuroblastoma culture, especially role of cell surface
- AUROUX, M.; Dr. Méd., Prof. – Lab. d'Histol.-Embryol., Fac. de Méd. de Bicêtre, 45 rue des Sts.Pères, 75 PARIS VIe, France
- a Perturbations tardives du système nerveux central compatibles avec la vie (baisse de la capacité d'apprentissage). *Rattus norvegicus* (Rodentia)
- b Influence de la nutrition de la mère sur le développement du système nerveux central de la progéniture; amélioration de la capacité d'apprentissage de la progéniture. *Rattus rattus* (Rodentia)
- AUSTIN, C. R.; D.Sc., Prof. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
- a Fusion between spermatozoa, eggs and other cells. *Mesocricetus auratus*, *Mus musculus* (Rodentia)
- BABAYEVA, Ms. A. G.; Dr.med. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a The immunological mechanisms controlling the processes of compensatory hypertrophy and regeneration of parenchymal organs. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- BABURINA, Ms. E. A.; Dr.biol. – Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Development of regional differences in neural retina and pigment epithelium (synthesis of DNA, RNA, electron microscopy). *Acipenser stellatus*, *A. güldenstädtii* (Chondrostei) (with V.I. MITASHOV and O.G. STROEVA)
- BACHMANN, P.; Dr.-Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM 1, B.R.D. (Germany)
- a Quantification of chromatin structure during myogenesis (texture analysis). *Mus musculus* (Rodentia)
- b Quantification of chromatin structure and DNA contents in nuclei of cultured cells (texture analysis) during the cell cycle. WISH cell line (amnion). *Homo sapiens* (Primates)
- BACKHOUSE, K. M.; VRD – Royal Coll. of Surgeons of England, Lincoln's Inn Fields, LONDON WC2A, 3PN, England
- BÄCKSTRÖM, S. A. A.; Fil.Dr. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Basic proteins during oogenesis and early development (biochemistry, histochemistry, autoradiography). *Paracentrotus lividus*, *Psammechinus miliaris* (Echinoidea)
- b Cyclic nucleotides in morphogenesis and behaviour of sea urchin larvae. *Psammechinus miliaris* (Echinoidea)
- BADET, Ms. M. T.; Dr.biol.anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Immune reactions against embryos in pregnant females. *Salamandra salamandra* (Urodela)
- BAEHNY, A. – Dépt. d'Embryol. et Teratol. Exp., Inst. de Biol. Anim., Fac. des Sci., Univ. de Fribourg, 1700 FRIBOURG, Switzerland
- a Cephalic induction and organ interactions; skull morphogenesis; interspecific grafts of encephalic territories. *Gallus gallus*, *Coturnix c. japonica* (Aves)
- BAEVSKY, J. B.; Dr.biol. – A.N.Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.
- a Cytology of embryonic retardation and activation. *Mustela zibellina* (Carnivora), *Rattus spec.* (Rodentia)
- b State of maternal endocrine glands during embryonic diapause and activation. Same species as a
- BAFFONI, G. M.; Dr.Biol., Prof. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
- a Growth and differentiation of nerve cells. (Cyclostomata; Teleostei; Amphiibia; Aves; Mammalia)
- b Regeneration of nerve fibres during larval life. (Urodela)
- BAGNALL, K. M.; Ph.D. – Dept. of Anat., Med. School, Univ. of Manchester, MANCHESTER M13 9PT, England
- a Development of skeleton and of movement. *Homo sapiens* (Primates)
- BAGUÑA, J.; Ph.D. – Dept. de Genet., Univ. de Barcelona, plaça Universitat, BARCELONA-7, Spain

- a Isolation and characterization of morphogenetic factors involved in growth and regeneration. *Dugesia mediterranea* (Turbellaria)
- b Cell cycle kinetics of neoblasts and differentiating cells (thymidine incorporation). Same species as a
- c In vitro culture of neoblasts and differentiated cells. Same species as a
BAILLY, Ms. S. E.; D.Sc. – Lab. de Zool., École Normale Supérieure, 46 rue d'Ulm, 75230 PARIS Cedex 05, France
- a Q-banding of metaphase chromosomes. *Pleurodeles poireti*, P. waltl (Urodela)
- b Localization of satellite DNA on metaphase chromosomes; relation with heterochromatin and secondary constrictions induced by cold treatment. *Pleurodeles waltl* (Urodela)
BAKER, R. E.; Ph.D. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction of nerve cells and behaviour during maturation of the nervous system. *Discoglossus pictus*, *Rana esculenta* (Anura), *Rattus norvegicus* (Rodentia)
- b Factors underlying specific interneuronal connections; morphology and physiology of spinal ganglion cells (skin-spinal cord preparation). *Rana pipiens*, *Bufo vulgaris*, *Discoglossus pictus* (Anura)
- c Electrophysiology of in vivo and in vitro sensory ganglion cells (skin-spinal cord preparation). *Rattus norvegicus* (Rodentia)
BAKER, T. G.; Ph.D., D.Sc. – Hormone Lab., Dept. of Obstet. and Gynecol., Univ. of Edinburgh, 23 Chalmers St., EDINBURGH EH 3 9EW, Scotland, U.K.
- a Oogenesis. (Rodentia; Primates)
- b The effects of X-rays on female germ cells. Same species as a
- c The fine structure and metabolic activity of oogonia and oocytes. Same species as a
- d Cytology and endocrinology of ovulation, fertilization, and early development in vitro. *Rattus norvegicus*, *Mus musculus* (Rodentia), *Homo sapiens* and other Primates
- e Structure and hormonal control of the placenta in organ culture. *Homo sapiens* (Primates)
- f Control of pituitary development and secretion in organ culture. *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
BAKHUIS, W. L.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction of nerve cells and behaviour during maturation of the nervous system. *Discoglossus pictus*, *Rana esculenta* (Anura), *Rattus norvegicus* (Rodentia)
BALAKHONOV, A. V. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Action of immunodepressors on reparative and physiological regeneration. *Gallus gallus* (Aves)
BALAKIER, Ms. H. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Nucleo-cytoplasmic interactions during oogenesis and preimplantation development. *Mus musculus*, *Clethrionomys glareolus* (Rodentia)
- b Sex differentiation. *Mus musculus* (Rodentia)
BALLS, M.; D.Phil. – Dept. of Hum. Morphol., Med. School, Univ. of Nottingham, Clifton Blvd. NOTTINGHAM NG7 2UH, England
- a Neoplasms. *Xenopus laevis* and other spp. (Amphibia)
- b Control of cell division. *Xenopus laevis* (Anura), *Amphiuma means*, *Triturus cristatus* (Urodela)
- c Organ culture of liver, heart, skin, kidney and other organs. *Amphiuma means*, *Necturus maculosus* (Urodela)
- d Development of the immune response and role of thymus. *Xenopus laevis* (Anura)
BALTUS, Ms. E. J.; D.Sc. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST.-GENÈSE, Belgium
- a Mechanisms of in vitro maturation. *Xenopus laevis* (Anura)
BARA, M. C.; Dr.3e Cycle – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Permeability of the placental membrane; conductance of co-ions and counter-ions (electrophysiological techniques). (Mammalia)
BARABANOV, V. M.; Cand.biol.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St.3, MOSCOW 117469, U.S.S.R.
- BARASTEGUI ALMAGRO, C. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain**
- a Development and reserpine. *Gallus domesticus* (Aves)
- b Regeneration capacity and reserpine. *Dugesia gonocephala* (Turbellaria)
BARBIER, R.; Dr. – Lab. de Biol. Anim. 1er Cycle, Univ. de Rennes, Av. du Gén. Leclerc, 35031 RENNES Cedex, France
- a Morphogenesis, metamorphosis and regeneration: fine structure and function of egg-shells, cuticles and epidermal glands (Verson's glands and colleterial glands). *Galleria mellonella* (Lepidoptera)
BARBOSA AYUCAR, E.; Dr.med., Prof. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain
- a Effect of catecholamines in development. *Gallus domesticus* (Aves)
BARIGOZZI, C.; D.Sc., Prof. – Ist. di Genet., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy
- a Differentiation potency of cultured cells injected into larvae. *Drosophila melanogaster* (Diptera)
BARLOW, P. W.; D.Phil. – A.R.C. Unit of Developm. Bot., Univ. of Cambridge, 181A Huntingdon Rd., CAMBRIDGE CB3 0DY, England
- BARNES, R. D.; M.D. – Dept. of Embryol. and Foetal Developm., Clin. Res. Ctr., Watford Rd., HARROW, Middlesex HA1 3UJ, England**
- a Interaction between factors inducing tumour susceptibility and those leading to tumour

- resistance (embryo transfer and aggregation). *Mus musculus* (Rodentia)
- b Effect of in vitro fertilization on development of chromosome abnormalities. *Mus musculus*, *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
- BARSACCHI (PILONE), Ms. G.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy
- a Mitotic and lampbrush chromosomes; DNA analysis and in situ RNA/DNA hybridization. (Urodela)
- BARSON, A. J.; M.D. – Dept. of Pathol., Univ. of Manchester, Stopford Bldg., Oxford Rd., MANCHESTER M13 9PT, England
- BART, A.; D.Sc. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B. P. 36, 59650 VILLENEUVE D'ASCO, France
- a Morphogenesis and regeneration. *Carausius morosus* (Phasmida)
- b Mitosis in regeneration (experimental study, hormonal regulation). Same species as a
- c Wing morphogenesis and regeneration (experimental study, ultrastructure). *Sipyloidea sipylus* (Phasmida) (with E. BROWAEYS)
- d In vitro analysis of morphogenesis and regeneration. Same species as a
- e Limb morphogenesis. *Mus musculus* (Rodentia) (with X. DESBIENS)
- BASTIAN, D. – Lab. d'Anat., Univ. de Paris V, 45 rue des Saints Pères, 75270 PARIS Cedex 06, France
- BATISTONI, Ms. R.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy
- a Mitotic and lampbrush chromosomes; DNA analysis and in situ RNA/DNA hybridization. (Urodela)
- BAUMANN, J. A.; Dr., Prof. – Inst. d'Anat., Univ. de Genève, 20 rue Ecole de Médecine, 1211 GENÈVE 4, Switzerland
- BAUMGARTEN, H.G.; Dr.med., Prof. – Anat. Inst., Abt. Neuroanat., Univ.-Krankenhaus Eppendorf, Martinstr. 52, 2 HAMBURG 20, B.R.D. (Germany)
- a Development of monoamine-containing neurons in the brain, especially effect of neurotoxic drugs and correlation with anterior pituitary hormones. *Mus musculus*, *Rattus spec.* (Rodentia)
- BAUR, R.; Dr. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland
- a Morphometry of placenta; comparison of placental villous surface with volume of fetus and placenta during pregnancy and at term. *Rattus norvegicus*, *Felis domestica*, *Sus domesticus*, *Bos taurus*, *Equus caballus*, *Homo sapiens* and other species (Mammalia)
- BAUTZ, A.; Dr.Spéc. – Lab. de Zool., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France
- a Cellular degeneration in abortive regeneration blastemas: effects of X-irradiation. *Dendrocoelum lacteum* (Turbellaria)
- b Effet de jeûne prolongé sur les capacités de régénération. Même espèce comme a
- BAUTZ (PORTMANN), Ms. A. M.; D.Sc. – Lab. de Zool., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France
- a Larval cells and histoblasts in the abdominal integument. *Calliphora erythrocephala* (Diptera)
- b Mechanism of the degeneration of larval cells. Same species as a
- BAXTER, E. W.; Ph.D. – Biol. Dept., Guy's Hosp. Med. School, LONDON SE1 9RT, England
- a Biology, including development and metamorphosis. *Petromyzon spec.* (Cyclostomata)
- BAZITOV, A. A.; M.Sc. – Vladivostokskij Med. Inst., VLADIVOSTOK 690002, U.S.S.R.
- a Morphology of spermatogenesis. *Biacetabulum appendiculatum* (Caryophyllidea, Cestoda)
- b Morphology of spermatogenesis and development. *Amphilina japonica* (Cestodaria, Cestoda)
- BEATTY, R. A.; Ph.D., F.R.S.E. – Dept. of Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Breeding of genetically tagged strains for use in developmental biology. *Oryctolagus cuniculus* (Lagomorpha)
- b Developmental biology and genetics of gametes. *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
- c Aetiology of heteroploidy. *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
- BEAUMONT, A.; D.Sc., Prof. – Lab.de Biol.-Vertébrés, Centre d'Orsay, Univ. de Paris XI, Bât. 441, 91405 ORSAY, France
- BEAUPAIN (CREPY), Ms. D.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Collège de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a La différenciation chimique du pancréas de l'embryon. *Gallus domesticus* (Aves)
- b Erythropoïèse embryonnaire. Même espèce comme a
- BEAUPAIN, R.; Dr. – Inst. d'Embryol. du C.N.R.S. et du Collège de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Effects on DNA synthesis of X-irradiation and DNA repair in developing and regressing embryonic organs. *Gallus domesticus* (Aves)
- BECCHETTI, E.; Dott.Sci.Biol. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
- a Histochemistry of blood vessel morphogenesis in vitro. *Bos taurus* (Artiodactyla)
- b Epithelio-mesenchymal interactions in lung and skin morphogenesis in vitro (histochemistry, ultrastructure, biochemistry). *Gallus domesticus* (Aves)
- BECK, F.; M.D., Prof. – Anat. Dept., Univ. of Leicester, Med. Sci. Bldg., University Rd., LEICESTER LE1 7RH, England
- a The effect of trypan blue on development. *Rattus spec.* (Rodentia), *Mustela putorius furo* (Carnivora)
- b Embryonic nutrition. Same species as a
- c The postnatal maturation of intestinal epithelium. *Rattus spec.*, *Cavia porcellus* (Rodentia),

- Oryctolagus cuniculus (Lagomorpha), Mustela putorius furo (Carnivora)
 BECKER, V.; Dr.med., Prof. – Pathol. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 8-10, 8520
 ERLANGEN, B.R.D. (Germany)
- a General and special pathology of placenta. Homo sapiens (Primates)
 - b Embryology and teratology of the liver, especially of the bile ducts. Same species as a
 - c Embryology and teratology of the skeleton, especially of the chondro- and neurocranium. Same species as a
- BEETSCHEIN, J. C.; D.Sc., Prof. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
- a Chemical mutagenesis (Urodele) (with A. JAYLET and V. FERRIER)
 - b The recessive semi-lethal factor ac: temperature-sensitivity of homozygous mutants; maternal effect in the progeny of mutant females. Pleurodes waltl (Urodele) (with M. FERNANDEZ)
 - c Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. Same species as b (with F. GASSE and A. JAYLET)
 - d Mesodermal determination of the posterior neural plate. *Ambystoma mexicanum* (Urodele)
- BEETZ, Ms. B. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN II, B.R.D. (Germany)
- a Influence of inorganic ions on mitosis in neuroblasts. *Carausius morosus* (Phasmida)
- BEIER, H. M.; Dr.rer.nat., Dr.med., Prof. – Abt. Anat. der Rhein.-Westf. Techn. Hochschule, Med.-Theor. Inst., Melatenstr. 211, 5100 AACHEN, B.R.D. (Germany)
- a Experimental developmental morphology of preimplantation stages, postimplantation stages, and their endocrinological developmental control. *Oryctolagus cuniculus* (Lagomorpha), *Cavia porcellus*, *Rattus* spec. (Rodentia)
 - b Specific uterine proteins (e.g. uteroglobin) and their hormonally controlled interference with blastocyst development. *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
 - c Experiments on development of accessory male genital glands. *Oryctolagus cuniculus* (Lagomorpha)
- BEINBRECH, G.; Dr., Prof. – Zool. Inst. der Univ., Arb.gr. Muskelphysiol., Hindenburgplatz 55, 44 MÜNSTER/Westf., B.R.D. (Germany)
- a Development of flight muscles during metamorphosis: formation of the myofibrils and of the sarcotubular system. *Phormia terraenovae* (Diptera)
- BELLAIRS, A. d'A.; D.Sc., Prof. – Dept. of Anat., St. Mary's Hosp. Med. School, Norfolk Place, LONDON W2 1PG, England
- a Morphogenesis of skeleton. many species (Reptilia; Aves; Mammalia)
 - b Embryonic membranes. many species (Reptilia)
 - c Regeneration. Same species as b
- BELLAIRS, Ms. M. R.; Ph.D. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Electron microscopy and histochemistry of yolk formation. *Gallus domesticus* (Aves)
 - b Cell migration within the embryo. Same species as a (with P. PORTCH and E. J. SANDERS (Canada))
 - c Cleavage. Same species as a (with F. LORENZ, Davis, Calif.)
 - d Scanning electron microscopy in the embryo. Same species as a
 - e Freeze-fracture studies of embryos. Same species as a (with A. S. BREATHNACH, St.Mary's Hosp.)
- BELOUSSOV, L. V.; Dr.biol. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Patterns of tensile stresses, contact cell polarization and their relation to differentiation of axial mesoderm. *Rana temporaria* (Anura), *Gallus domesticus* (Aves)
 - b Growth rhythms and morphogenesis. *Hydra* spec., *Thecaphora* (Hydrozoa)
- BENEDETTI, I.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
- a Development of intramedullary ganglion cells. (Labridae & Syngnathidae: Teleostei)
 - b Glycogen in the central nervous system; viviparous and ooviparous spp. (Teleostei)
- BENSON, P. F.; M.D., Ph.D. – Paediat. Res. Unit, Guy's Hosp. Med. School, Guy's Tower, LONDON SE1 9RT, England
- a Development of enzyme systems before and after birth. *Homo sapiens* (Primates)
 - b Prenatal diagnosis of metabolic diseases by cultured amniotic cell enzyme assay. Same species as a
- BENTYN, K.; M.D. – Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
- BEREITER-HAHN, J.; Dr.phil.nat., Prof. – Arb.gr. Kinemat. Zellforsch., Univ., Senckenberganlage 27, 6000 FRANKFURT/M., B.R.D. (Germany)
- a Electron microscopy of pigment granule formation in melanophores. *Pterophyllum scalare* (Cichlidae), *Lebistes reticulatus* (Poeciliidae, Teleostei)
 - b Ultrastructure of the development of flame cells in the skin. *Hippocampus* spec. (Teleostei)
 - c Interference microscopy of tadpole heart cell cycle, measuring of mitochondrial amount and structure by vital fluorimetry; electron microscopy of cells during different states of cell cycle. *Xenopus laevis* (Anura)
- BERGERARD, J.; D.Sc., Prof. – Stat. Biol., place Georges-Tessier, 29211 ROSCOFF, France
- a Physiology of spawning and induction of meiosis in the oocytes. *Patella vulgata*, *P. aspera*, *P. depressa*, *Gibbula cineraria* (Gastropoda)
 - b Regression and regeneration of genital tract in the seasonal sexual cycle. *Littorina saxatilis* (Gastropoda)
- BERGHOF, J.; Ir. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands

- BERKOVITZ, B. K. B. – Anat. Dept., Bristol Univ., University Walk, BRISTOL BS8 1TD, England
- BERNARD, C.; Lic. ès Sci. – Lab. de Physiol. Anim., Univ. de Poitiers, Bât.P, 40 av. du Recteur Pineau, 86022 POITIERS, France
no work on developmental biology in progress
- BERNARD, Ms. J.; M.Sc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Experiments on the working of vegetative and floral meristems. *Pisum sativum* (Leguminosae)
- BERNHARD, H. P.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Stability and inheritance of the determined state in vitro (somatic cell genetics: mutagenesis, mutant selection, cell fusion). *Drosophila melanogaster* (Diptera)
- b Gene dosage in vitro, and application to genetic mapping. Same species as a
- BERNOCHI, Ms. G.; Ph.D., Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
- a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). *Rattus rattus* (Rodentia)
- b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
- BERREUR (BONNENFANT), Ms. J.; Dr. ès Sci. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France
- BERRY, M.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a Effects of X-irradiation on central nervous development. *Rattus spec.* (Rodentia)
- b Development of cerebral and cerebellar cortex. Same species as a
- c Regeneration in the central nervous system. Same species as a
- BERTINI, Ms. M.; M.D. – Cell and Molec. Biol. Lab., Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeglio 52, 10126 TORINO, Italy
- a Cell membrane differentiation; immunochemistry of surface macromolecules. *Mus musculus* (Rodentia)
- b Membrane-mediated growth control in BHK (baby hamster kidney) cells. *Mesocricetus auratus* (Rodentia)
- BERTMAR, G.; Ph.D. – Sect. of Ecol. Zool., Dept. of Biol., Univ. of Umeå, 90187 UMEA, Sweden
- a Experimental developmental morphology of the olfactory organ. *Salmo spec.* (Teleostei)
- BERTOLANI, R.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
- a Morphology of neotenic and metamorphosed animals. *Triturus alpestris* (Urodea)
- b Gametogenesis in parthenogenetic and amphigonic animals. *Macrobiotus spp.*, *Hypsibius spp.*, *Isohypsbius spp.*, *Diphascon spp.* (Tardigrada)
- BERTON (PECHEUX), Ms. F.; Dr.3e Cycle – Ctr. de Biol. Appl., Fond. Hersent-Luzarche, Univ. de Tours, 36290 AZAY-LE-FERRON, France
- BERTON, J. P.; Dr. – Ctr. de Biol. Appl., Fond. Hersent-Luzarche, Univ. de Tours, 36290 AZAY-LE-FERRON, France – Ctr. de Rech. Vét. et Zootechn., Lab. de Physiol. de la Reprod., (INRA), 37 NOUZILLY, France
- BERTOUT, M.; Dr.3e cycle – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D'ASCQ, France
- a Action hormonale au niveau du noyau des cellules germinales mâles et femelles. *Nereis spec.* (Polychaeta)
- BESSE, G.; Dr. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
- a Influence des facteurs externes et internes sur les cycles sexuels des femelles. *Ligia oceanica*, *Porcellio dilatatus* (Isopoda, Crustacea)
- BETTANIN (BELGRANO), Ms. S.; Dr.nat.sci. – Ist. di Zool., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
- a Embryonic development of a parthenogenetic marine form. *Penilia avirostris* (Cladocera, Crustacea) (with N. DELLA CROCE)
- b Growth of the embryo. Same species as a (with N. DELLA CROCE)
- c Formation of resting eggs. Same species as a (with N. DELLA CROCE)
- BEUG, H.; Ph.D. – Max-Planck Inst. für Virusforsch., Abt.III, Spemannstr. 35-III, 74 TÜBINGEN, B.R.D. (Germany)
- a Mechanism of transformation of embryonic fibroblasts by avian sarcoma viruses (RNA-tumor). *Gallus domesticus* (Aves)
- BEYNON, A. D. G.; Ph.D. – Dept. of Oral Anat., Dental School, Northumberland Rd., NEWCASTLE upon Tyne NE1 8TA, England
- BEYSE, J.; Dr.rer.nat., Dipl.Biol. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
- a Relations between electrolyte milieu and gene activities in giant chromosomes; direct measurements of ion contents in nuclei and cytoplasm. *Chironomus thummi* (Diptera)
- BEZEM, J. J.; Ir. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands
- a Computer simulation of embryonic development. (with Chr. P. RAVEN)
- BIELAŃSKA-OSUCHOWSKA, Ms. Z.; Dr., Prof. – Dept. of Histol. & Embryol., Warsaw Agric. Univ., ul. Nowoursynowska 166, 02-766 WARSZAWA, Poland
- a Histochemistry and ultrastructure of the development of gonads, adrenals, and placenta. *Sus scrofa domesticus* (Artiodactyla)

- b Histochemistry and ultrastructure of oogenesis. (Insecta; Mammalia)
 BIÉTRY, Ms. A. F. – Lab. de Zool. et Embryol., Univ. de Besançon, place Maréchal Leclerc, 25030
 BESANÇON Cedex, France
- a Influence des hormones sexuelles sur la différenciation des glandes mammaires d'embryons.
Oryctolagus cuniculus (Lagomorpha)
- BIGGELAAR, J. A. M. v.d.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8,
 UTRECHT, Netherlands
- a Significance of division chronology, cell adhesion and cell contacts in the process of dorsoventralisation and early differentiation. *Lymnaea stagnalis*, *Patella vulgata*, *Haliotis tuberculata* (Gastropoda), *Dentalium vulgare* (Scaphopoda)
- BIJTEL, Ms. J. H.; D.Sc., M.D. – De Boelelaan 275, "Zuidwende", AMSTERDAM, Netherlands
- BILIŃSKI, S.; D.Sc. – Zool. Dept., Jagellonian Univ., ul.Krupnicza 50, KRAKÓW, Poland
- a Vitellogenesis (Protura)
- BILLAT (CARLIER), Ms. C.; D.E.S. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062
 REIMS Cedex, France
- a Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. *Rattus norvegicus* (Rodentia) (with R. L. JACQUOT, J. NAGEL and M. D. NAGEL)
- BILLETT, F. S.; Ph.D. – Dept. of Biol., The Univ., Bldg.25, SOUTHAMPTON SO9 5NH, England
- a The formation of mitochondria in oocytes. *Xenopus laevis* (Anura)
- b Origin and formation of oocytes. *Ascaris* spec., *Turbatrix* spec. (Nematoda)
- BILLINGTON, W. D.; Ph.D. – Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England
- a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- b Biology of the trophoblast. Same species as a
- c Early embryonic development. *Mus musculus* (Rodentia)
- BINNS, R. M.; Ph.D., M.R.C.V.S. – Dept. of Immunol., A.R.C. Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England
- a Developmental immunology and lymphoid cell physiology. *Sus scrofa domesticus*, *Ovis aries* (Artiodactyla)
- BIRCH-ANDERSEN, A. – State Serum Inst., Amagerboulevard 80, 2300 COPENHAGEN S, Denmark
- a Ultrastructure of normal and pathological sperm. *Bos taurus* (Artiodactyla) (with E. BLOM, State Vet. Serum Lab.)
- BIRNSTIEL, M. L.; Dr.sci.nat., Prof. – Inst. für Molek.biol.II, Univ. Zürich, Winterthurerstr. 266A, 8057 ZÜRICH, Switzerland
- a Characterization of ribosomal DNA. *Xenopus laevis* (Anura)
- b Structure, expression, and regulation of histone coding sequences. *Psammechinus miliaris*, P. spec. (Echinoidea)
- BISCONTE, J. C.; D.Sc. – Lab. de Neurobiol. et de Micr. Quant., C.H.U. de Bobigny, 74 rue M. Cachin, 93000 BOBIGNY, France
- a Chronoarchitectonic studies of the central nervous system (radioautography) in Reeler and Staggerer mutants. *Mus musculus* (Rodentia)
- b Quantitative and radioautographic studies of proliferation and organisation of cells of central nervous system cultured in vitro. Same species as a
- c Quantitative microscopy, picture analysis and lateral mobility of embryonic nervous cell membrane receptors in vitro (central nervous system). Same species as a
- BJERRE, B.; M.D. – Tornblad-Inst. for Comp. Embryol., Biskopsgatan 7, 223 62 LUND, Sweden
- BLÄHSER, S.; Dr.vet. – Zentr. für Anat. und Cytophiol., Justus Liebig Univ., Aulweg 123, 6300 GIESSEN, B.R.D. (Germany)
- a Development of calcitonin-immunoreactive C-cells in the thyroid (Mammalia) and the ultimobranchial body (Aves)
- BLAIS, Ms. C. – Lab. de Zool., École Norm. Supérieure, 46 rue d'Ulm, 75230 PARIS Cedex 05, France
- a Hormonal control of protein metabolism in wing imaginal discs. *Pieris brassicae* (Lepidoptera)
- b Ultrastructural aspects of wing disc development. Same species as a
- BLANCHET, J. P.; D.Sc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Development of erythrocyte membrane antigens. *Gallus domesticus* (Aves)
- BLANCHET, Ms. M. F. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Relations between vitellogenesis and intermolt. *Orchestia gammarellus* (Amphipoda, Crustacea)
- b Ecdysone titers in whole female extracts, in ovary extracts, and in haemolymph (radioimmunoassay). Same species as a
- BLECHSCHMIDT, E.; Dr.med., o.ö.Prof. (Emer.) – Anat. Inst. der Univ., Kreuzbergring 36, 34 GÖTTINGEN, B.R.D. (Germany)
- BLOM, E.; Dr.med.vet. – State Vet. Serum Lab., Bülowsvæj 27, 1870 COPENHAGEN V, Denmark
- a Pathological conditions in testis, epididymis and accessory sex glands. *Bos taurus* (Artiodactyla)
- b Ultrastructure of normal and pathological sperm. Same species as a (with A. BIRCH-ANDERSEN, State Serum Inst.)
- c Hereditary sperm defects. *Bos taurus*, *Sus scrofa domesticus* (Artiodactyla)
- BLUEMINK, J. G.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaan 8, 3584 CT UTRECHT, Netherlands
- a Ultrastructural organisation of the plasma membrane and associated cytoplasmic elements: its role in early development. *Xenopus laevis* (Anura)
- b Regulation of the cell cycle and its significance for development and differentiation: the role of

- changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, *Mus musculus* (Rodentia) (with S. W. de LAAT, P. T. van der SAAG, S. A. NELEMANS and W. H. MOOLENAAK)
- BLUZAT, R. R.; D.Sc. — Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d'Orsay, 91405 ORSAY, France
- a Effects of insecticides, herbicides and detergents on development. *Lymnaea* spec. (Gastropoda) and other fresh water animals
- BODE, H. J.; Dr.rer.nat. — Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG 1, B.R.D. (Germany)
- a Myogenesis; immunology of muscular proteins; in vitro translation. *Drosophila melanogaster* (Diptera)
- BOELSTERLI, U.; Dipl.nat. — Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- BOER, G. J.; Dr. — Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction with hormones during maturation and adaptation of the nervous system. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- BOER, G. J.; Dr. — Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction with hormones during maturation and adaptation of the nervous system. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- BOGENMANN, E.; M.Sc. — Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Gene expression in somatic cell hybrids. *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
- BOHN, H.; Dr.rer.nat. — Zool. Inst. der Univ., Luisenstr. 14, 8 MÜNCHEN 2, B.R.D. (Germany)
- a Wound healing in vivo and in vitro. *Leucophaea maderae* (Blattodea)
- BOILLY, B.; D.Sc., Prof. — Lab. de Morphol. Exp., Univ. des Sci. et Techn., B.P. 36, 59650 VILLENEUVE D'ASCQ, France
- a Development of regeneration cells (dedifferentiation, activation, differentiation); determination of this development. (Annelida)
- b Factors of regenerative morphogenesis, especially nervous system, tissular contacts. (Annelida)
- BOLETZKY, S. von; Ph.D. — Lab. Arago, Univ. de Paris VI, 66650 BANYULS-sur-MER, France
- a Embryonic and post-embryonic development. (Cephalopoda)
- BOLOGNARI, A.; Prof. — Ist. di Zool. e di Anat. Comp., Univ. di Messina, Via dei Verdi 75, 98100 MESSINA, Italy
- a Nature of initial and definitive yolk globules and modification of the yolk (structure, ultra-structure, cytochemistry). *Aplysia depilans* (Gastropoda)
- b Differences between the primary nucleolus and the amphinucleoli in oocytes (autoradiography, ultrastructure and cytochemistry). *Patella coerulea* (Gastropoda)
- c Structure, ultrastructure and autoradiography of nucleolin in oocytes. (Mollusca)
- d Histochemical distribution of the enzymes of carbohydrate metabolism in the Golgi zones of yolk globules. Same species as a
- BONARIC, J. C.; Dr.Spéc. — Lab. de Zool.II (Morphol. et Ecol.), Univ. des Sci. et Techn. du Languedoc, Place E.Bataillon, 34060 MONTPELLIER, France
- a Ecophysiology of post-embryonic development. *Pisaura mirabilis* (Araneida, Arachnida)
- BONDI, C.; Dott., Prof. — Ist. di Anat. Comp., Univ. di Perugia, via A. Pascoli, 06100 PERUGIA, Italy
- a Magnetic field action on nervous system development. *Rana esculenta*, *Bufo vulgaris* (Anura)
- b Action of antiandrogens on the ultrastructure of male genital organs. *Cavia porcellus* (Rodentia)
- BONS, J.; D.Sc. — Lab. de Biogeogr. et Écol. des Vertébr., École Prat. des Hautes Études, place E. Bataillon, 34060 MONTPELLIER, France
- a Embryonic development. Lacertidae, Agamidae (Lacertilia)
- BONTEKOE, Ms. E. H. M.; Drs. - Dept. of Obstet. and Gynecol., Univ. of Amsterdam, Wilhelmina Gasthuis, Ie Helmerstr. 104, AMSTERDAM, Netherlands
- a Psychogenous influences on uterine motility and on fetal development. *Canis familiaris* (Carnivora), *Ovis aries*, *Sus scrofa* (Artiodactyla), *Oryctolagus cuniculus* (Lagomorpha)
- BOON (NIERMAYER), Ms. E. K.; M.Sc. — Zool.Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands
- a Influence of protein synthesis inhibitors on the cell cycle. *Lymnaea stagnalis* (Gastropoda)
- b Significance of early cleavage cycles and programmed division pattern; correlation of division anomalies and abnormal division chronology with specific morphogenetic disturbances. Same species as a
- BOPP, M.; Dr.rer.nat., Prof. — Bot. Inst., Univ. Heidelberg, Hofmeisterweg 4, 69 HEIDELBERG, B.R.D. (Germany)
- a Development; morphogenesis of protonema. *Funaria hygrometrica* (Muscii)
- b Shoot growth. *Sinapis* spec. (Cruciferae), *Pisum sativum* (Papilionaceae)
- c Tissue culture; growth and differentiation under the action of herbicides. *Nicotiana tabacum* (Solanaceae), *Anagallis arvensis* (Primulaceae)
- BOSQUET, G.; Dr.spéc. — Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- BOSSY, J. G. M.; M.D., Prof. — Dept. of Anat., Univ. of Montpellier, Section of Nîmes, av.Kennedy, 30000 NÎMES, France
- a Development and maturation of the central nervous system in the fetus. *Homo sapiens* (Primates)
- BOTERENBROOD, Ms. E. C.; Ph.D. — Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalan 8, 3584 CT UTRECHT, Netherlands
- a Analysis of dorso-ventral and cranio-caudal polarity in mesoderm induction. *Ambystoma mexicanum* (Urodela) (with P. D. NIEUWKOOP and K. HARA)

- b Role of mesoderm induction in pattern formation. Same species as a, and *Triturus alpestris* (Urodela)
- BOTH, N. J. de; Ph.D. – Pathol. Anat. II, Erasmus Univ., Dr. Molenwaterplein 40, ROTTERDAM, Netherlands
- a Influence of Rauscher leukemia virus on blood formation, *Mus musculus* (Rodentia)
- BOTTKE, W.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst. für Allgem. Zool., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)
- a Oogenesis, especially the origin of yolk and the follicle cell-oocyte interactions (electron microscopy, autoradiography, electrophoresis). *Planorbarius corneus*, *Lymnaea stagnalis*, *Bithynia tentaculata*, *Valvata piscinalis* (Gastropoda)
- b Chromosomal structure during endomitosis, mitosis and meiosis in the hermaphroditic gland (electron microscopy, autoradiography, cytophotometry). *Planorbarius corneus*, *Lymnaea stagnalis* (Gastropoda)
- c Ferritin yolk. (Gastropoda)
- BOTTON, B. – Lab. de Physiol. Végét., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France
- a Morphogenesis of aggregated organs (coremia and rhizomorphs). *Sphaerostilbe repens* (Ascomycetes)
- BOUCAUT, J. C.; D.Sc. – Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Expression of mosaicism in allophenic chimaeras. *Pleurodeles waltli*, *Ambystoma mexicanum* (Urodela)
- b Cellular interactions in development
- BOURSNELL, J. C.; Dr. – A.R.C. Unit of Reprod. Physiol. & Biochem., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- BOURY ESNAULT, Ms. N. – Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France
- a Regeneration and morphogenesis. (Porifera)
- BOUTHFR, A. – Lab. de Zool. École Norm. Supér., 46 rue d'Ulm, 75230 PARIS Cedex 05, France
- a Ommochrome metabolism during development in larvae and adults of normal and "albino" mutant strains. *Locusta migratoria* (Orthoptera)
- b Hormonal control of pigmentation. Same species as a
- BOUVET, J. L.; Dr.Spéc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France
- a Cell proliferation in the pectoral fin bud; differentiation of the apical ectodermal ridge. *Salmo trutta fario* (Teleostei)
- b Destruction of the egg shell by the peridermal cells which envelope the yolk mass (transmission and scanning electron microscopy). Same species as a
- BOWNES, M.; D.Phil. – Dept. of Biol., Univ. of Essex, Wivenhoe Park, COLCHESTER CO4 3SQ, England
- a Mutations altering the organisation of the embryo. *Drosophila melanogaster* (Diptera)
- b Attempts to experimentally induce polarity reversals in embryos using techniques of centrifugation and UV irradiation. Same species as a
- c Experiments on the mechanism of regeneration in imaginal discs. Same species as a
- d Developmental effects of exposing embryos to ether vapour. Same species as a
- BOZDZILOVSKAYA, V. P. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Relative duration of development and normal table. *Ambystoma mexicanum* (Urodela)
- BRACHET, J. L. A.; M.D., D.Sc., Prof. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Synthesis of DNA, RNA and protein, and energy production during maturation. *Xenopus laevis* (Anura)
- b Concanavalin A binding to cell membranes during development. Same species as a
- c Induction of maturation by organomercurials. Same species as a
- d Role of ions and SH groups in the induction of maturation and in differentiation without cleavage. *Chaetopterus* spec. (Polychaeta)
- e Role of polyamines in egg development (Echinoidea)
- BRADAMANTE, Ž.; M.D. – Inst. of Histol. and Embryol., Fac. of Med., Univ. of Zagreb, P.O. Box 166, Šalata 3, 41001 ZAGREB, Yugoslavia
- a Chondrogenesis in the external ear. *Rattus norvegicus* (Rodentia) (with A. ŠVAJGER and Lj. KOSTOVIĆ)
- b Differentiation of the intercellular matrix during ontogenesis (histology, histochemistry, electron microscopy). Same species as a (with A. ŠVAJGER and Lj. KOSTOVIĆ)
- BRAACT, J. van; Dr., Ir. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O. Box 30, WAGENINGEN, Netherlands
- a Endogenous hormone levels and parthenocarpic fruit set. *Pyrus* spec., *Malus* spec. (Rosaceae)
- b Endogenous cytokinins and regeneration of sprouts on leaf cuttings. ornamental spp. (Angiospermae)
- BRAHMA, S. K.; D.Phil., Ph.D. – Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands
- a Biosynthesis of soluble proteins in early development (isoelectric focusing, autoradiography). (Amphibia) (with P. T. v. d. SAAG, Hubrecht Lab.)
- b Biosynthesis of soluble lens crystallins in early and late development (isoelectric focusing, autoradiography). *Anas platyrhynchos* (Aves) (with H. van der STARRE)
- c Isoelectric focusing of some enzymes during lens development. Same species as b, and *Gallus*

- domesticus (Aves) (with H. van der STARRE)
- d Ontogeny and localisation of the gamma-crystallins (immunofluorescence). (Anura, Urodea) (with D. S. McDEVITT, Philadelphia)
- BRAND, A.; Dr.Vet.Med., Ph.D. – Inst. of Vet. Obstet., Artif. Insem. and Reprod., State Univ., Yalelaan 7, UTRECHT, Netherlands
- a Nonsurgical recovery, transplantation and storage of embryos. domestic species (Mammalia)
- BRÄNDLE, K. A.; Dr.rer.nat., Prof. – Arb.gr. Neuro- und Rezeptorphysiolog., Fachber. Biol. (Zool.) der Univ., Siessmayerstr. 70, 6000 FRANKFURT, B.R.D. (Germany)
- a Rearing of isolated limb pairs together with different parts of the spinal cord in parabiosis with a host for study of movement coordination. *Ambystoma mexicanum*, *Triturus* spec. (Urodea)
- b Rearing of isolated tandem heads in parabiosis with a host for study of nerve connections between doubled optic and vestibular sense organs and the central nervous system. *Ambystoma mexicanum* (Urodea), *Xenopus laevis* (Anura)
- c Development of retinotectal connections (surgery); electrophysiological mapping of the optic projections. Same species as b
- BRAUM, E.; Dr. – Inst. für Hydrobiol. und Fisch.wiss., Univ. Hamburg, Olbersweg 24, 2 HAMBURG Altona I, B.R.D. (Germany)
- a The influence of temperature, oxygen pressure and water flow on eggs and larvae. *Esox lucius*, *Coregonus* spp. (Teleostei)
- b The relation of external oxygen deficiency and embryogenesis. *Clupea harengus* (Teleostei)
- BREATHNACH, A. S.; M.D., Prof. – Dept. of Anat., St. Mary's Hosp. Med. School, Paddington, LONDON W2 1PG, England
- a Freeze-fracture replication of early blastoderm. *Gallus domesticus* (Aves)
- b Transmission electron microscopy and freeze fracture of fetal skin. *Homo sapiens* (Primates)
- BRENNER, S.; D.Phil. – Lab. of Molec. Biol., Med. Res. Coun., Hills Rd., CAMBRIDGE CB2 2QH, England
- a Developmental genetics of the nervous system. *Caenorhabditis elegans* (Nematoda)
- BREUGEL, F. M. A. van; Dr. – Genet. Lab., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Differentiation in white-mottled and Notch mutants. *Drosophila* spec. (Diptera)
- BRIARTY, L. G.; Ph.D. – Bot. Dept., Nottingham Univ., University Park, NOTTINGHAM NG7 2RD, England
- BRICHOVÁ (MÜLLEROVÁ), Ms. H. M.; M.D. – Inst. of Embryol., Fac. of Med., Charles Univ., Albertov 4, 12800 PRAHA 2, Czechoslovakia
- BRIDE, Ms. J.; Licès Sci. – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France
- a Développement embryonnaire de la glande uropygienne. *Anas platyrhynchos* (Aves) (avec L. GOMOT)
- BRIDE (VUILLET), Ms. M.; D.Sc. – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France
- a Le développement in vivo et in vitro du cœur. *Rana temporaria*, *Xenopus laevis* (Anura) (avec L. GOMOT)
- BRIEGLEB, W.; Dr.rer.nat. – Inst. für Flugmedizin der DFVLR, Kölnerstr. 70, 53 BONN-Bad Godesberg, B.R.D. (Germany)
- a Einfluss von Licht und hoher Temperatur auf die Ontogenese einer neotenen Art aus einem Höhlenbiotop. *Proteus anguinus* (Urodea)
- b Teratogenic and genetic anomalies induced by simulated weightlessness (fast running clinostat). *Tribolium confusum* (Coleoptera) (with J. NEUBERT)
- c Effect of simulated weightlessness on ultrastructure of the embryonic vestibular organ. (Anura) (with J. NEUBERT)
- BRINKMANN, A. O.; M.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Steroid production in testes during fetal development; sensitivity for luteinizing hormone (LH), chorionic gonadotropin (HCG), and the steroid biosynthesis inhibitor aminoglutethimide phosphate (AGP); relation with differentiation of genital ducts. *Cavia porcellus* (Rodentia)
- BRØNDSTED, H. V.; Dr.Phil., Prof. (Emer.) – Stockholmsgade 23, 2100 COPENHAGEN Ø, Denmark
- BROWAEYS, Ms. E. – Serv. de Biol. Anim., Univ., des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France
- a Wing morphogenesis and regeneration (experimental study, ultrastructure). *Sipyloidea sipylyus* (Phasmida)
- BRUCE, L.; Fil.Kand. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3, 223 62 LUND, Sweden
- BRUEL, Ms. M. Th.; Dr.3e cycle – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
- a Effect of pesticides on embryonic germ cells. (Aves)
- BRUGAL, G. J. Y.; D.Sc. – Lab. de Zool., Dépt. de Biol., Univ. Sci. et Méd. de Grenoble, B.P. 53, 38041 GRENOBLE, France
- a Inhibitory substances (chalones) involved in the regulation of cell proliferation during embryonic development. *Pleurodeles waltl* (Urodea)
- b Autoradiography and cytophotometry of the relations between proliferation and differentiation in embryonic cell populations. Same species as a
- BRUIN, J. P. C. de; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Development and correctibility of behaviour. *Rattus norvegicus* (Rodentia)
- BRUINSMA, J.; Dr., Prof. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
- BRUN, B. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

- a Intra-uterine growth retardation. *Oryctolagus cuniculus* (Lagomorpha)
 b Ligation of uterine terminal vessels. Same species as a
 c Cyclophosphamide teratogenesis. Same species as a, and *Homo sapiens* (Primates)
 d Sperm motility. Same species as c
 BRUN, J. L.; D.Sc., Prof. — Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
 BRUNNERT, A. — Zool. Inst., Univ. Zürich, Kästlergasse 16, 8006 ZÜRICH, Switzerland
 BRUSTIS, J. J.; Dr.biol.anim. — Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
 a Étude descriptive et expérimentale de la formation et de la différenciation des somites. *Rana dalmatina*, *Bufo bufo*, *Discoglossus pictus* (Anura)
 b Régénération de la queue au cours du développement précoce. *Rana dalmatina*, *Bufo bufo* (Anura)
 BUCCI-INNOCENTI, Ms. S.; Dr.Biol. — Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy
 a Mitotic and lampbrush chromosomes in hybrids. *Triturus* spec. (Urodela)
 b Electrophoretic studies in embryos and larvae. Same species as a
 BUCKLEY, Ms. S. K. L.; Ph.D. — Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
 a In vitro development of post implantation embryos, role of extraembryonic factors (such as maternal hormones) in the regulation of development. *Rattus* spec. (Rodentia)
 b Formation of eggs and role of gonadotrophic hormone in their development. *Octopus vulgaris* (Cephalopoda)
 BUEHRL, M. L.; Ph.D. — MRC Mammalian Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
 a Regulation in the development of chimaeras. *Mus musculus* (Rodentia)
 b In vitro culture of embryos. Same species as a
 c Sex determination in normal and chimaeric animals. Same species as a
 BUGGE, J.; Ph.D. — Dept. of Anat., Royal Dent. Coll., Vennerlyst Bd., 8000 ÅRHUS C, Denmark
 a Malformations of the vascular system of brain and head. *Mus musculus*, *Rattus norvegicus* (Rodentia) (with P. A. KNUDSEN)
 BUGRILOVA, Ms. R. S.; Cand.biol. sci. — Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of the USSR, Profsoyuznaya St. 7(I), MOSCOW 117312, U.S.S.R.
 a Developmental study of mutant gene effects on skeletal developmental abnormalities in vitro. *Mus musculus* (Rodentia)
 BUKULYA, B. — Inst. of Exper. Med., Morphol. Dept., Hung. Acad. of Sci., Szigony u.43, BUDAPEST 1083, Hungary
 a Fine structure and hormonal activity of intact and cultured embryonic adrenal cells of different species. *Rattus* spec. (Rodentia), *Homo sapiens* (Primates)
 BULLIÈRE, D.; D.Sc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France
 a Cell determination in regenerating appendages; relations between regeneration, proliferation, and differentiation; genetic control of morphogenesis. *Blabera craniifer* (Blattodea)
 b DNA-, RNA-, and cuticle component synthesis in epidermal cells of embryos. Same species as a
 BULLIÈRE (CHALLANDE), Ms. F.; D.Sc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France
 a Relation between differentiation and hormones in embryos cultured in vitro. *Blabera craniifer* (Blattodea)
 b DNA, RNA, and cuticle component synthesis in epidermal cells of embryos. Same species as a
 c Effect of ecdysteroids on embryonic leg regeneration in vitro. Same species as a
 BULMER, D.; M.D., D.Sc., Prof. — Dept. of Human Morphol., Univ. of Southampton Med. Sch., Highfield, SOUTHAMPTON SO9 5NH, England
 a Cell proliferation and differentiation in placenta and female genital system. *Rattus* spec. (Rodentia) (with S. PEEL)
 b Immunology of pregnant uterus. (Rodentia) (with S. PEEL)
 BULYZHENKOV, V. E.; Dr. — Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.
 a Temperature sensitivity of homoeotic and non-homoeotic mutants. *Drosophila melanogaster* (Diptera)
 b Pleiotropy of homoeotic genes. Same species as a
 BÜNING, J.; Dr.rer.nat. — Zool. Inst. der Univ., Lehrst. für Allgem. Zool., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)
 a RNA synthesis in early development: analysis of nucleotide-pools, rate of RNA synthesis, characterization of RNA. *Bruchidius obtectus* (Coleoptera)
 BURGER, Ms. E. H.; Dr. — Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
 a Influence of parathyroid extract on sulfate metabolism of developing cartilage in vitro. *Mus musculus* (Rodentia)
 c Ultrastructural effect of parathyroid extract on maturing embryonic cartilage and cartilage calcification in tissue culture. Same species as a
 BURGESS, A. M. C.; Ph.D. — Dept. of Anat., London Hosp. Med. Coll., Turner St., LONDON E. 1, England
 a RNA synthesis in dedifferentiating and redifferentiating regenerating tissues. *Xenopus laevis*, *Ambystoma* spec. (Amphibia)

- b Somite morphogenesis. *Xenopus laevis* (Anura)
 c Myogenesis. Same species as b
 d The teratogenic effects of altering cell adhesions during cell migration. Same species as b
 BURGOYNE, P. S.; Ph.D. – Hormone Lab., Dept. of Obstet. and Gynecol., Univ. of Edinburgh, 23 Chalmers St., EDINBURGH EH3 9EW, Scotland, U.K.
 a Role of sex chromosomes in germ cell differentiation. *Mus musculus* (Rodentia)
 b Preimplantation development: 1. inner cell mass determination and trophoblast (trophoblastoderm) differentiation; 2. YO lethality. Same species as a
 BURIGHEL, P.; Dr.biol. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
 a Differentiation of digestive tract. *Botryllus schlosseri* and other spp. (Asciidaeae)
 b Organogenesis. *Botryllus schlosseri* (Asciidaeae)
 c Tissue involution during metamorphosis. (Asciidaeae)
 BUSCH, L. C.; Dr.rer.nat. – Dept. of Anat., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 51 AACHEN, B.R.D. (Germany)
 BUTLER, S. R.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
 a Development of cerebral dominance: differentiation of hemispheric function in infants and children (electroencephalography). *Homo sapiens* (Primates)
 BUZNIKOV, G. A.; Dr.biol.sc. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a The role of neurotransmitters (acetylcholine, serotonin, catecholamines) in early embryogenesis. *Strongylocentrotus dröbachiensis*, *S. nudus*, *S. intermedius*, *Paracentrotus lividus*, *Arbacia lixula*, *Sphaerechinus granularis* (Echinoidea) (with L. N. MARKOVA and N. A. TEPLITZ)
 b Role of serotonin in intercellular connections during cleavage divisions. *Scaphechinus mirabilis* (Echinoidea) (with J. B. SHMUKLER)
 BYCZKOWSKA (SMYK), Ms. W.; Dr. – Dept. of Comp. Anat., Jagellonian Univ., ul.Krupnicza 50, 30-060 KRAKÓW, Poland
 a Cell size in development. *Rana temporaria*, *R. arvalis* (Anura)
 BYSKOV-SJOLTE, Ms. A. G.; Ph.D. – Finsen Lab., Finsen Inst., 49 Strandboulevarden, 2100 COPENHAGEN Ø, Denmark
 a Development and function of ovaries and rete ovarii; cell dynamics of atresia (electron microscopy, autoradiography). (Rodentia; Primates)
 b Sex differentiation in vivo and in vitro. Same species as a
 CABANIER, Ms. M. - J. – Dépt. d'Histol.-Embryol., Univ. de Paris XII, 6 rue du Gén. Sarraïl, 94000 CRETEIL, France
 CABROL, D.; M.D. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
 a Intrauterine foetal visualization
 CADILHAC, J. C.; Prof. – Lab. de Pathol. Génér., Fac. de Méd., Bd. Henri IV, 34000 MONTPELLIER, France
 a Maturation of monoaminergic systems in foetus (morphology, histofluorescence, tritiated thymidine, biochemistry, enzymology). *Rattus spec.* (Rodentia), *Felis catus* (Carnivora)
 CALASTRINI, Ms. C. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
 a Epithelial-mesenchymal interactions in lung morphogenesis in vitro (ultrastructure). *Gallus domesticus* (Aves)
 b Ultrastructure of embryonic membranes. *Homo sapiens* (Primates)
 CALLEBAUT, M. E.; M.D. – Lab. of Anat. and Embryol., State Univ. Center, Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
 a Early development. *Gallus domesticus*, *Coturnix coturnix* (Aves)
 b ³H-uridine, ³H-thymidine, and ¹H-leucine-³H incorporation in female germ cells. *Coturnix c. japonica* (Aves)
 c Origin of ovarian somatic cells. Same species as a
 CALVEZ, B.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
 CAMBAR, R.; Dr., Prof. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE Cedex, France
 a Étude descriptive et expérimentale de la morphogenèse du mésonephros. *Rana spec.*, *Alytes spec.*, *Discoglossus spec.*, *Xenopus spec.* (Anura)
 b Ultrastructure du pronéphros et du mésonephros. (Anura)
 c Involution ou transformation de l'appareil excreteur pendant la métamorphose. (Anura)
 d Rapports entre l'appareil génital et l'appareil excréteur. (Anura)
 e Différenciation sexuelle. (Anura)
 f Infrastructure des cellules germinales. (Anura)
 g Étude expérimentale de la morphogenèse du tube digestif et des glandes annexes. (Anura)
 CAMENZIND, R.; Dr.sc.nat. – Dept. of Zool., Swiss Fed. Inst. of Technol., Universitätstr. 2, 8006 ZÜRICH, Switzerland
 a Morphology, physiology, and cytology of paedogenetic-bisexual reproduction cycle. *Heteropeza pygmaea* (= *Oligarces paradoxus*), *Tekomyia populi*, *Mycophila speyeri*, *Miastor castaneae* (Cecidomyiidae, Diptera)
 b Chromosome elimination in early cleavage in females and regulation of chromosome number after meiosis in males (time-lapse cinematography and ultrastructure). *Heteropeza pygmaea* (Cecidomyiidae, Diptera)

- c Sex determination; in vitro culture of ovaries; time-lapse cinematography. Same species as b
 d Non-random chromosome segregation by monocentric spindles in spermatogenesis (time-lapse cinematography, ultrastructure). *Mycophila speyeri* (Cecidomyiidae, Diptera)
- CAMOSSO, Ms. M. E.; Sc.D., Prof. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy
- a Analysis of the morphogenesis of the wing. *Gallus domesticus* (Aves)
 b Nerve patterns in experimentally duplicated limbs. Same species as a
 c Vascular patterns of the spinal cord under normal and experimental conditions. Same species as a
 d Vascular patterns in telencephalon and diencephalon. Same species as a
- CAMPANELLA, Ms. C.; Dr. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
- CAMPANTICO, E.; Dr. – Inst. of Histol. and Embryol., Univ. of Torino, Via Giolitti 34, 10123 TORINO, Italy
- a Hypothalamic control of thyroid activity before metamorphosis (131I, chromatography, partial brain extirpation). *Bufo bufo* (Anura)
- CAMPBELL, J. C.; Ph.D. – M.R.C. Epigenet. Res. Grp., Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Regulatory mechanisms in lens regeneration. *Xenopus laevis* (Anura)
 b Effect of histidinaemia on ear development. *Mus musculus* (Rodentia)
 c Synthesis, ontogeny, location and immunochemistry of lens proteins in normal animals and mutants. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with R. M. CLAYTON, D. E. S. TRUMAN, D. J. PRITCHARD (Edinburgh), and D. S. McDEVITT (Philadelphia))
- CAMPBELL, Ms. M. T.; Ph.D. – Dept. of Biochem., Med. Sci. Inst., Univ. of Dundee, DUNDEE DD1 4HN, Scotland, U.K.
- a Developmental changes in endocrinological factors and in detoxicating and carbohydrate-metabolising enzymes during the perinatal period. *Mus musculus*, *Rattus spec.*, (Rodentia), *Homo sapiens* (Primates)
 b Endocrinological xenobiotic and dietary factors affecting bilirubin conjugation in the neonate. Same species as a
- CAMPELO BARCIA, Ms. E.; M.D. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain
- a Development of the primary stages of the olfactory placode. *Gallus domesticus* (Aves)
- CAMPOS-ORTEGA, J. A.; Dr., Prof. – Inst. für Biol. III der Univ., Schänzlestr. 9-11, 7800 FREIBURG, B.R.D. (Germany)
- a Morphogenesis of compound eye and central nervous system (clonal analysis, histology). *Drosophila melanogaster* (Diptera)
 b Organisation of the regenerating retina-tectal system. *Carassius auratus* (Teleostei)
- CAÑADAS-VILLALTA, J. A.; M.D. – Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med., Univ. of Sevilla, SEVILLA, Spain
- CANTELL, C. E.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Larval development. (Heteronemertini, Nemertina)
- CĂPĂLNĂSAN, I.; Biol. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Role of normal and experimentally induced necrosis in teratogenesis. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia)
 b Cytogenetics. *Homo sapiens* (Primates)
- CAPDEVILLA, Ms. M. P.; Ph.D. – Sect. Devl. Genet., Inst. of Genet. CSIC, Ctr. of Molec. Biol., Univ. Autónoma de Madrid, Canto Blanco, MADRID 34, Spain
- a Development and genetic analysis of phenocopies. *Drosophila melanogaster* (Diptera)
- CAPPANNINI, M.; – Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy
- a Chromosomal aberrations. (Mammalia)
- CAPURON, A. P.; D.Sc., Prof. – Lab. d'Embryol., Univ. des Sci. et Techn. de Lille, B. P. 36, 59650 VILLENEUVE D'ASCQ, France
- a Origine, migration et différenciation des cellules germinales primordiales (cultures embryonnaires). *Pleurodeles walti* (Urodea)
 b Induction et organogenèse de la bouche et des dents in vivo et in vitro. Même espèce comme a
 c Caractéristiques électriques membranaires au cours des premiers stades du développement. Même espèce comme a
- CARAVATTI, M.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZURICH, Switzerland
- a Synthesis and degradation of muscle proteins in myogenic cell cultures. *Gallus domesticus* (Aves)
- CARINCI, P.; M.D., Prof. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
- a Biochemical and histochemical analysis of embryonic fluids (albumen, yolk, and serum). *Gallus domesticus* (Aves)
 b Epithelio-mesenchymal interactions in lung and skin morphogenesis in vitro. Same species as a
 c Induction of yolk protein synthesis in cultured embryonic liver cells. Same species as a
- CARRÉ Ms. M. C.; D.E.S. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France
- CARUSO, A.; B.Sc. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
- a Induction of yolk protein synthesis (phosvitin) in cultured embryonic liver cells. *Gallus domesticus* (Aves)
- CASSAGNE-MÉJEAN, Ms. F.; D.Sc. – Lab. de Zool.II (Morphol. et Ecol.), Univ. des Sci. et Techn. du

- Languedoc, place E. Bataillon, 34060 MONTPELLIER, France
- a Embryonic and postembryonic development and metamorphosis. *Arrenurus* spec. (Hydrachnidae, Acarina, Arachnida)
- CASTELL, J.: Dr.3ème cycle – Inst. de Biol. Marine, Univ. de Bordeaux I, 2 rue du Prof. Jolyet, 33120 ARCACHON, France
- a Morphology of larval development; life cycle in relation with ecological conditions in the laboratory and in brackish waters. (Copepoda and other Entomostraca)
- CAVALLIN (THOMAS), Ms. M.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Germ line cell segregation and migration (ultrastructure). *Carausius* spec., *Clitumnus* spec. (Phasmida)
- b Experiments on interactions between somatic and germinal cells during gonadogenesis. Same species as a
- CAYROL, C.; Dr. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
- a Gene expression and gene dosage tested by enzyme activities in diploid and polyploid animals. (Urodea)
- CAZAUX, Cl.; D.Sc. – Inst. de Biol. Marine, Univ. de Bordeaux I, 2 rue du Prof. Jolyet, 33120 ARCACHON, France
- a Larval development from egg (artificial fertilization, rearing in the laboratory) and larval ecology in the area of the Bassin d'Arcachon. (Polychaeta)
- CÉAS, M. P.; Dr.sci.nat. – Ist. di Anat. Comp., Univ. di Firenze, Via Romana 17, 50125 FIRENZE, Italy
- a Interactions of 3-4 benzopyrene with membranes of spermatozoa and eggs. *Xenopus* spec. (Anura)
- b Fertilization of normal and 3-4 benzopyrene treated eggs with 3-4 benzopyrene treated sperm. *Paracentrotus lividus* (Echinoidea)
- CERIMELE, D.; M.D. – Dept. of Dermatol., Univ. of Pavia, Policlinico S. Matteo - P. le Golgi, 27100 PAVIA, Italy
- a Development of the hair. *Homo sapiens* (Primates)
- CHALLIER, J. C.; Dr. 3e Cycle – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât. A, 7ème étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Placental transfer in vitro of anxiolytics, beta-mimetics, oxygen, hexoses, amino acids and water soluble substances of different molecular weight (perfusion in vitro). *Homo sapiens* (Primates)
- CHALOUPKA, Z.; MUDr., CSc. – Inst. of Pathophysiol., Charles Univ., Lidecká 1, 306 05 PLZEŇ, Czechoslovakia
- a Effect of afferentiation in early postnatal life on the formation of temporary connections. *Rattus norvegicus* (Rodentia)
- b Development of functional abilities of the auditory system. *Rattus norvegicus* (Rodentia)
- CHALUMEAU, Ms. M. Th.; D.Sc. – Lab. de Biol. du Dével., C.H.U. de Bobigny, 74 rue M. Cachin, 93000 BOBIGNY, France
- a Chronologie et topographie de l'apparition de protéines liées au métabolisme du fer (Tf, Hpx) par immunologie et immunoцитologie; relations avec les cellules cibles. *Pleurodeles waltli* (Anura), *Rattus* spp., *Homo sapiens* (Mammalia)
- b Enzymes présentant des formes multimoléculaires chez le foetus et le nouveau-né; évolution phylégénétique et ontogénétique; relations avec des dysfonctionnements. *Rattus* spp., *Homo sapiens* (Mammalia)
- CHAMBOLLE, P.; D.Sc. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
- a Expériments sur la gestation. *Gambusia* spec. (Teleostei)
- b Contrôle hypothalamique de la fonction gonadotrope, Espèce comme a
- CHANDEBOIS, Ms. R.; Dr., Prof. – Lab. de Morphogénét. Anim., Univ. de Provence – Centre St. Charles, Place Victor Hugo, 13331 MARSEILLE-Cedex 3, France
- a Activity of the undifferentiated material in normal and regenerating animals (electron microscopy, tissue culture, irradiation). *Dugesia subtentaculata*, *D. gonocephala* (Turbellaria)
- b Equilibria between the two cell types of the undifferentiated tissue and equilibria between this undifferentiated tissue and the differentiated cells. Same species as a
- CHANDRA, N.; Ph.D. – Bot. Labs., Univ. of Leicester, Adrian Bldg., Univ. Rd., LEICESTER LE1 7RH, England
- a Experimental somatic embryogenesis in plants and tissue cultures. (Spermatophyta)
- CHANTURISHVILI, P. S.; Dr.biol.sci., Prof. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- CHAPRON, C.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Interactions between nervous system, vascularisation and growth of regeneration blastema. (Oligochaeta; Urodea)
- b Effect of nervous system on angiogenesis. (Mammalia)
- CHARBONNÉ-GOETT, Ms. F. – Lab. d'Histol.-Embryol. Cyogénét., Fac. de Méd., Bd. Winston Churchill, B.P. 38, 63001 CLERMONT-FERRAND Cedex, France
- a Morphogenesis and cytochemistry of perinatal and adult myocardium in cell culture; pharmacological study. *Rattus* spec. (Rodentia)
- b Ultrastructure and cytochemistry of perinatal and adult hepatic cells in subculture. Same species as a

- CHARLES, R.; Dr. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Developmental changes in activity of liver carbamylphosphate synthetase. *Ambystoma mexicanum* (Urodela)
 - b Histones in early embryonic development. *Xenopus laevis* (Anura)
- CHARNIAUX-COTTON, Ms. H.; D.Sc., Prof. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Electrophoresis and immunochemistry of a female protein: vitellogenin. *Orchestia gammarellus* (Amphipoda, Crustacea) (with Y. CROISILLE (Nogent), J. J. MEUSY and H. JUNERA)
 - b Description and control of oogenesis and maturation. Same species as a
- CHÂTEAUREYNAUD-DUPRAT, Ms. P.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Immune reactions against embryos in pregnant females. *Salamandra salamandra* (Urodela), *Rattus spec.* (Rodentia)
- CHAUVIN, G. R.; Dr.3ème cycle – Lab. de Biol. Anim. 1er Cycle, Univ. de Rennes, Av. du Gén. Leclerc, 35031 RENNES Cedex, France
- a Anatomy and cytology of the genital tract and its glands; egg formation. *Monopis spec.*, *Galleria mellonella*, *Korscheltellus spec.* (Lepidoptera)
 - b Anatomical and physiological patterns allowing larval development in dry conditions. *Monopis spec.*, *Tinea spec.*, *Tineola spec.* (Lepidoptera)
- CHECIU, I.; Biol. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Experimental teratology of the central nervous system. *Gallus domesticus* (Aves)
 - b Development of cerebral vesicles. Same species as a
- CHECIU, Ms. M.; Biol. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Experimental teratology; transfer of embryos. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- CHEN, P. S.; Dr.phil., Prof. – Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- a Paragonial substance, amino acids and peptides. *Drosophila melanogaster*, D. spec. (Diptera)
- CHEVALLIER, A. D.; Dr.spéc. – Lab. de Zool., Dépt. de Biol., Univ. Sci. et Méd. de Grenoble, B.P. 53, 38041 GRENOBLE, France
- a Development of axial skeleton, rib basket and girdles in homo- and xenoplastic transplantation experiments. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- CHEVREAU, J. P.; Dr. Méd., Prof. – Dépt. d'Histo.-Embryol., Univ. de Paris XII, 6 rue du Gén.Sarrail, 94000 CRÉTEIL, France
- CHIBON, P.; D.Sc., Prof. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France
- a Nuclear labelling of embryonic cells (autoradiography). *Pleurodeles waltlii*, *Triturus alpestris* (Urodela)
 - b Morphogenetic abilities and differentiation of neural crest cells. Same species as a
 - c Origin and differentiation of teeth. *Rana spec.*, *Bufo spec.* (Anura), *Pleurodeles waltlii* (Urodela)
 - d Cellular proliferation in the embryo: kinetics and differentiation. *Pleurodeles waltlii* (Urodela)
- CHIEFFI, G.; M.D., Prof. – Ist. e Museo di Zool., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
- CHIQUET, M.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Surface changes during muscle cell differentiation. *Gallus domesticus* (Aves)
- CHMILEVSKY, D. A.; Cand.biol.sci. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
- a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
- CHOFFEL, Ms. C. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Développement de la langue et du larynx. *Homo sapiens* (Primates) (avec A. DOLLANDER et R. SEMBA (Japan))
- CHOROSZEWSKA-LELICIŃSKA, Ms. A.; Dr.biol. – Lab. of Exp. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
- a Effect of different proportions of amino acids in maternal blood and of single amino acid excess on the embryo. *Rattus spec.* (Rodentia)
 - b Analysis of kininogenetic substances (kallikrein, kininogen, kininase, biologically active polypeptides) in endometrial secretions. Same species as a
- CHOURAQUI, Ms. J. – Lab. de Zool. et d'Embryol. Exp., Univ. Louis-Pasteur, 12 rue de l'Université, 67000 STRASBOURG, France
- a The role of the hypophysis in hormonal activity of embryonic gonads. *Gallus domesticus*, *Anas platyrhynchos* (Aves), *Mus musculus*, *Rattus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- CHRIST, B.; Dr.med., Prof. – Lehrst. für Anat.I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)
- a Differentiation of somites, *Gallus domesticus*, *Coturnix c. japonica* (Aves)
 - b Ultrastructure of connective tissue differentiation. *Gallus domesticus* (Aves)
 - c Scanning and transmission electron microscopy of prelaying stages. Same species as a
 - d Origin and development of musculature. Same species as a
 - e Development of the embryonic kidney. Same species as a, and *Homo sapiens* (Primates)
 - f Migration of embryonic cells. Same species as b

- CHRONWALL, B.; Fil.mag. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
 a Development of inhibitory neurons in the neocortex. *Rattus* spec. (Rodentia)
- CHULITZKAYA, E. V. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DETTLAFF, P. E. FEULGENGAUER and A. S. STEPANOV)
- ČIHÁK, R.; MUDr., D.Sc., Prof. – Dept.of Anat., Charles Univ., U nemoenice 3, 12800 PRAHA 2, Czechoslovakia
 a Prenatal development of muscles. *Homo sapiens* (Primates)
 b Prenatal development of extremities (Vertebrata)
- CIONINI, P. G.; Dr. – Ist. di Genet. della Univ., Via Matteotti 1/A, 56100 PISA, Italy
 a Physiology and molecular biology of embryogenesis, especially polytene chromosomes in the embryo suspensor cells. *Phaseolus coccineus* (Papilionaceae)
- CIOPPETTINI, Ms. M. CONTI; Dr.rer.nat. – Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy
- CLAIRAMBAULT, P.; D.Sc. – Équipe de Neuroembryol., Lab. d'Anat. Comp., Univ. Paris VII, 2 place Jussieu, 75221 PARIS Cedex 05, France
 a Morphogenesis of primary and secondary optic centres and pathways. (Teleostei; Crossopterygii; Amphibia; Aves; Mammalia)
- CLAVERT, A. J. J.; Dr.méd. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
 a Eye development and lens differentiation. *Oryctolagus cuniculus* (Lagomorpha)
 b Teratogenic effect of glucose injection into the amniotic cavity. Same species as a
- CLAVERT, J. M. J.; D.Sc., Prof. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
 a Le déterminisme de la symétrie bilatérale. *Gallus domesticus*, *Anas platyrhynchos* (Aves)
 b Chimiotatogenèse (venoms). *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- CLAYTON (FREEDMAN), Ms. R. M.; M.A. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Properties of lens mRNAs; regulation of stability. *Gallus domesticus* (Aves) (with D. E. S. TRUMAN, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))
 b Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with D. E. S. TRUMAN, D. J. PRITCHARD, J. C. CAMPBELL (Edinburgh), and D. S. Mc. DEVITT (Philadelphia))
 c Ultrastructure, immunology, and cell properties of lenses with normal and genetically modified cell membranes. Same species as b (with D. J. PRITCHARD and D. I. de POMERAU)
 d Standardisation of lens antibodies. Many species (with all lens immunochemists willing to collaborate)
 e Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as b (with D. J. PRITCHARD and D. I. de POMERAU)
 f In vitro analysis of transdifferentiation of neural and pigmented retina. Same species as a (with D. J. PRITCHARD and D. I. de POMERAU)
 g In vitro analysis of teratogens (with D. J. PRITCHARD and D. I. de POMERAU)
- CLEGG, E. J.; M.D., Ph.D., Prof. – Dept. of Anat., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
 a Effect of hypoxia on preimplantation stages. *Mus musculus* (Rodentia)
- CLEMEN, G.; Dr. – Lehrstuhl für spez. Zool., Zool. Inst. der Univ., Hüfferstr. 1, 4400 MÜNSTER, B.R.D. (Germany)
 a Light and scanning electron microscopy of the teeth in the upper jaw and the palate of the larval, neotene, and metamorphosed *Ambystoma mexicanum* (Urodela)
 b Ultrastructural changes of the skin of metamorphosed animals transplanted in larvae. *Salamandra salamandra* (Urodele)
- CLOTHIER, R. H.; Ph.D. – Dept. of Hum. Morphol., Med. School, Univ. of Nottingham, Clifton Blvd., NOTTINGHAM NG7 2UH, England
 a Neoplasms. *Xenopus laevis* (Anura), *Triturus cristatus* (Urodele)
 b Development of the immune response and role of thymus. *Xenopus laevis* (Anura)
- CLOWES, F. A. L.; D.Phil., D.Sc. – Botany School, Oxford Univ., South Parks Rd., OXFORD OX1 3RA, England
 a Organisation of meristems, especially origin of diversity in mitotic cycles. *Zea mays* (Gramineae)
- COBOS CARBO, P. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain
 a Embryology of caecum and veriform appendix (organ culture). *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- COCHARD, P.; Dr.spéc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
 a Experiments on the differentiation of the parasympathetic enteric ganglia, especially tissue interactions. *Gallus gallus*, *Coturnix c. japonica* (Aves)
 b Retrograde influence of the target organs innervated by sympathetic ganglia on the development of presynaptic cholinergic terminals. *Mus musculus* (Rodentia)
- COCK, A. W. A. M. de; Drs. – Dept. of Bot., Sect. Molec. Developm. Biol., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
 a Sexual reproduction. *Zostera marina*, *Z. noltii* (Najadaceae)
- COCKROFT, D. L.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
 a Teratogenic effects of elevated levels of glucose on head fold embryos in culture, and the

- mechanisms by which these effects are produced. *Rattus* spec. (Rodentia)
- b Effects of steroid hormones on embryos in culture. Same species as a
- COGNETTI, G.; Dott.Chim. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Histones and other nuclear proteins in oocytes and during embryology. *Paracentrotus lividus* (Echinoidea)
- b Chromatin structure in embryos. Same species as a
- c Microtubule proteins in oocytes. Same species as a
- COHLEN, Jack; Ph.D. – Dept. of Zool. and Comp. Physiol., Univ. of Birmingham, P.O.Box 363, BIRMINGHAM B15 2TT, England
- COLARD, C. – Lab. de Zool. et Embryol., Univ. de Besançon, place Maréchal Leclerc, 25030 BLISANCON Cedex, France
- a Organogenèse de la glande mammaire (culture in vitro). *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha) (avec L. GOMOT et A. BIETRY)
- COLENBRANDER, B.; D.V.M. – Vet. Anat. and Embryol. Inst., State Univ. of Utrecht, Bekkerstraat 141, UTRECHT, Netherlands
- a Endocrinology of sexual differentiation. *Sus scrofa domesticus* (Artiodactyla)
- b Development of accessory sex glands in tree Martins and normal animals. Same species as a
- COLLENOT, A.; Dr.Vét. Dr.Sci., Prof. – Lab. d'Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY sur SEINE, France
- a Analyse expérimentale des mécanismes de la différenciation sexuelle des gonades. (Amphibia)
- b L'expression des gènes léthaux ulcère et léthal mitotique. *Pleurodeles waltli* (Urodela)
- COLLIN, J. P.; D.Sc., Prof. – Lab. de Zool. et de Biol. Cell., U.E.R. Sci. Fond. et Appl., Bât.C-1, 40 av. du Recteur Pineau, 86022 POITIERS, France
- a Development of the pineal gland (electron microscopy). (Cyclostomata; Reptilia; Aves; Mammalia)
- b Embryogenesis and phylogenesis of the pineal gland. (Aves; Mammalia)
- c Proteins in the embryonic pineal gland (autoradiography and electron microscopy). Same species as b
- d Indolamines and catecholamines in the embryonic pineal gland. Same species as b
- CÖLLN, K.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Isolation and characterization of pigment granules from compound eyes. *Ephesia kühniella* (Lepidoptera)
- b Tryptophan metabolism during development. Same species as a
- COLOMERA, D. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
- a Comparative oogenesis and spermatogenesis. Marine species (Deuterostomata)
- COLOMBO, L.; Dr.biol. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
- a Possible cooperative steroidogenesis between corpus luteum and placenta in estrogen synthesis and in pregnancy maintenance. *Rattus* spec. (Rodentia)
- b Role of progestogens and 11-deoxycorticosteroids in oocyte maturation and ovulation. *Gobius joso* (Teleostei)
- c Role of progesterone and human chorionic gonadotropin in the induction of oocyte maturation in vitro. *Rana esculenta*, *R. dalmatina* (Anura)
- d Shift from synthesis of estrogen to 11-deoxycorticosteroid after vitellogenesis and before maturation. *Dicentrarchus labrax* (Serranidae, Teleostei)
- COMOGLIO, P. M.; M.D., Assoc.Prof. – Cell and Molec. Biol. Lab., Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeglio 52, 10126 TORINO, Italy
- a Cell membrane differentiation: immunochemistry of surface macromolecules. *Mus musculus* (Rodentia)
- b Membrane-mediated growth control in BHK (baby hamster kidney) cells. *Mesocricetus auratus* (Rodentia)
- CONTINI, Ms. A.; Dr. – Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy
- CORNEC, J. P.; Dr.spéc. – Lab. de Morphogénét. Anim., Univ. de Provence - Centre St.Charles, Place Victor Hugo, 13331 MARSEILLE-Cedex 3, France
- CORNER, M. A.; Ph.D. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction of nerve cells and behaviour during maturation of the nervous system. *Discoglossus pictus*, *Rana esculenta* (Anura), *Rattus norvegicus* (Rodentia)
- b Role of neural function in early development of the central nervous system in vivo and in vitro (electrophysiology and neurohistology). *Rattus norvegicus* (Rodentia)
- c Structural basis of spontaneous neural activity in early development. Same species as b
- CORUJO ANTELO, Ms. A.; Dr.nat.sci., Dr.biol.sci. – Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA (7), Italy
– General Mola 88, MADRID 6, Spain
- COULOMB (GAY), Ms. R.; Lic.ès Sci. – Lab. de Morphogénét. Anim., Univ. de Provence - Centre St.Charles, Place Victor Hugo, 13331 MARSILIE-Cedex 3, France
- COULON, Ms. J. – Lab. d'Histol. et Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 rte Léon Laënnec, 13288 MARSEILLE Cedex 2, France
- a Role of biogenic amines and cyclic nucleotides in regeneration (biochemistry; cytochemistry). *Owenia fusiformis* (Polychaeta)
- CRAĆIUN, Ms. O.; L.Sc. – Chaire de Biol.-Histol., Inst. de Med. et Pharm., Str. Republicii No. 48, 3400 CLUJ-Napoca, Romania
- a Corrélation entre le foie en régénération et autres organes (surrénale, testicule). *Rattus* spec. (Rodentia)

- CRIPPA, M.; M.D., Prof. – Lab. d'Embryol. Moléc., Dépt. de Biol. Anim., Univ. de Genève, 154 route de Malagnou, 1224 CHÈNE BOUGIERIES (Genève), Switzerland
- a Control of transcription. *Xenopus laevis* (Anura)
- CRNEK, Ms. V.; M.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Early differentiation (transplantation, in vitro culture). *Rattus norvegicus* (Rodentia) (with N. ŠKREB)
- b Differentiation of early postimplantation stages under the kidney capsule, teratocarcinogenesis, nature of embryonal carcinoma cells; transplantation, electron microscopy. *Mus musculus*, *Rattus norvegicus* (Rodentia) (with N. ŠKREB)
- CROES, A. F.; Dr. – Dept. of Bot., Sect. Molec. Developm. Biol., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Induction of meiosis. *Saccharomyces cerevisiae* (Ascomycetes)
- CROISILLE, Y.; Dr. – Inst. d'Embryol. du C.N.R.S. et du Collège de France, 49bis av.de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Developmental, kinetic and immunochemical studies of enzymes (lactic dehydrogenases, hypoxanthine dehydrogenase, esterases) in different tissues. *Gallus gallus* (Aves)
- b Arylsulphatases in the liver. Same species as a (with B. FLDECKA-BRUNI R)
- c Organogenesis of the kidney. Same species as a (with M. GUMPEL-PINOT)
- d Involution of the mesonephros and differentiation of the epididymis (immunohistology). Same species as a (with M. GUMPEL-PINOT and J. M. GASC)
- e Purification and characterization of a female-specific (vitellogenin) protein fraction. *Orchestia gammarellus* (Amphipoda) (with J. J. MEUSY, H. JUNERA and H. CHARNIAUX-COTTON (Paris))
- CSABA, G.; M.D., D.Sc., Prof. – Dept. of Biol., Semmelweis Univ. of Med., P.O.B. 95, 1450 BUDAPEST, Hungary
- a Experimental and physiological embryology; teratogenesis. *Rattus rattus* (Rodentia)
- b Developmental genetics. (Protozoa), *Dugesia lugubris* (Turbellaria), *Rattus rattus* (Rodentia)
- c Molecular biology of mast cell formation. Same species as a
- CSILLIK, B.; M.D., Prof. – Dept. of Anat., Univ. Med. Sch., Kossuth Lajos út 40, P.O.Box 512, 6701 SZEGED, Hungary
- a Developmental histochemistry and electron microscopy of the autonomic ground plexus. *Rattus rattus* (Rodentia) (with E. KNYILÁR, M. GAJÓ and G. KÁLMÁN)
- CUDENNEC, C. A.; Dr.spéc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Hemopoiesis in teratocarcinoma cultured in vitro, and analogy with normal development. *Mus musculus* (Rodentia)
- b Potentiality of embryonic cells to recognise homologous tissue in vivo
- CULLEN, M. J.; D.Phil. – Musc. Dystrophy Res. Labs., Newcastle Gen. Hosp., NEWCASTLE-on-Tyne NE4 6BE, England
- a Electron microscopy of muscle regeneration after application of tiger snake (*Notechis*) venom. *Rattus norvegicus* (Rodentia)
- b Cell death in presumptive dystrophic and normal foetal muscle. *Homo sapiens* (Primates)
- c Myofibril and myofilament assembly in foetal muscle (Mammalia)
- CUMINGE, Ms. D.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Organogénèse sexuelle précoce de l'embryon. *Gallus gallus* (Aves) (with R. DUBOIS)
- b Biosynthèse glycoprotéique dans les ébauches gonadiques (topochimie, cinétique). Même espèce comme a
- c Effets des lectines sur l'amibiodisme des cellules germinales. Même espèce comme a
- CURTIS, A. S. G.; Ph.D., Prof. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K.
- a Structure and physical chemistry of embryonic cell surfaces. *Gallus domesticus*, *Coturnix* spp. (Aves)
- b Segregation mechanisms in reaggregates of embryonic cells. Same species as a
- c Adhesion mechanisms in embryonic cells. *Ephydatia fluviatilis* (Porifera), *Gallus domesticus*, *Coturnix* spp. (Aves) and others
- d Cell positioning in embryogenesis: lymphocytes, somite formation. *Gallus domesticus* (Aves)
- CUSIMANO (CAROLLO), Ms. T.; D.Sc., Prof. – Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a The causal development of the mouth. *Discoglossus pictus* (Anura)
- b Hybrid fertilization after aging of eggs. *Ascidia malaca*, *Ascidia aspersa* (Asciidae)
- c Heterospecific fertilization of abdominal eggs. Same species as a
- CZAPIK, Ms. R.; Dr.hab. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka 52, 31-044 KRAKÓW, Poland
- CZAPSKA (DZIEKANOWSKA), Ms. D.; Ph.D. – Dept. of Gen. Biol., Inst. of Biol. and Morphol., Silesian Acad. of Med., ul.K.Marksa 19, 41-808 ZABRZE, Poland
- a Cytogenetics of congenital malformations. *Homo sapiens* (Primates)
- CZIHAK, G.; D.Phil., Prof. – Lehrkanzel für Genet. und Entw.biol. der Univ. Salzburg, Porsche Str. 8, 5020 SALZBURG, Austria
- a Molecular biology of early development. *Paracentrotus lividus*, *Psammechinus miliaris* (Echinoidea)
- b Polarity of the egg and cleavage pattern. Same species as a
- c Parthenogenetic activation of development. (Echinoidea; Teleostei)

- CZOŁOWSKA, Ms. R. K.; Dr. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak. Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Preimplantation development *in vivo* and *in vitro*. *Mus musculus* (Rodentia)
- DABAGIĆ (ERAMICHEVA), Ms. N. V.; Cand.biol. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Autoradiography of cell populations in regeneration of the retina. *Rana temporaria* (Anura)
- b Development of the ciliary body (scanning and transmission electron microscopy). Same species as a, and *Rattus spec.* (Rodentia)
- DAGUERRE de HUREAUX (PIGEAULT), Ms. N.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Embryology. *Sphaeroma spec.* (Isopoda, Crustacea) (With M. LASSÈGUES)
- b Embryonic development of brain and cephalic glands. Same species as a
- DAMERON, Ms. F.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Morphogenèse du poumon: 1. déterminisme de la maturation des structures spécifiques de l'épithélium (ultrastructure); 2. évolution du métabolisme du tissu pulmonaire (biosynthèse des lipides, activité enzymatique). *Gallus gallus* (Aves), *Rattus spec.* (Rodentia) (avec L. MARIN)
- DAMJANOV, I.; M.D., D.Sc. – Inst. of Pathol., Fac. of Med., Univ. of Zagreb, Salata 10, P.O.Box 936, 41001 ZAGREB, Yugoslavia
- DANIELI, G. A.; Dr.biol. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
- a Differentiation of salivary glands during larval development. *Drosophila hydei* (Diptera)
- DANILOVA, L. V. – Lab. of Devl. Cytogenet., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- D'ANNA, T.; Dr.nat.sci. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Enzyme activity in embryonic development. (Asciidae)
- b Respiratory metabolism during embryonic development. (Asciidae)
- c Ultrastructure of dermal chromatophores. *Discoglossus pictus* (Anura)
- d Glycogen in growing oocytes and developing eggs. (Asciidae)
- DARNBROUGH, C. H.; Ph.D. – Dept. of Molec. Biol., Univ. of Edinburgh, King's Bldgs., Mayfield Rd., EDINBURGH EH9 3JR, Scotland, U.K.
- a Control of protein and nucleic acid synthesis during oogenesis and embryogenesis, especially mRNA, poly(A) processing. *Xenopus laevis* (Anura)
- DAVID (BÖGLI), Ms. D.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Action du DDT sur le développement de l'embryon; analyse des résidus. (Aves)
- DAVIDOVA, S. I. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R.
- a Influence of environmental conditions and thyroxine on the reaction of the follicle to hormones. (Acipenseridae, Chondrostei) (with T. A. DETTLAFF)
- DAWES, C. M.; Ph.D. – Dept. of Physiol., Royal Vet. Coll., Royal College St., LONDON NW1 0TU, England
- a Respiration and acid-base regulation. *Gallus domesticus* (Aves)
- b The physiological basis of hatching. Same species as a
- DECROLY (BRIERS), Ms. M.; D.Sc.Chim. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-St-GENÈSE, Belgium
- a Rôle éventuel des lysosomes dans l'utilisation du vitellus au cours du développement embryonnaire. (Amphibia)
- DEGENHARDT, K.-H.; Dr.med., Prof. – Inst. für Humangenet. der Univ., Paul-Ehrlich St. 41, 6 FRANKFURT/Main 70, B.R.D. (Germany)
- a Environmental influences on chromosomal mosaicism; correlations between chromosomal aberrations and special malformations. *Mus musculus* (Rodentia)
- DELARUE, M.; Dr.3e Cycle – Lab. d'Immunol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Nuclear and cytoplasmic transplantation. *Bufo* (Anura)
- DELAY, B. – Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
- a Influence des facteurs abiotiques (température) sur le développement embryonnaire des espèces souterraines. *Bathysciola spec.*, *Speonomus spec.*, *Antrocharis spec.* (Coleoptera)
- b Influence des facteurs abiotiques sur la reproduction. *Speonomus longicornis* (Bathysciinae, Coleoptera)
- DELEANU, M.; Dr.med. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Tissue culture; embryo culture. *Gallus domesticus* (Aves)
- DE LEO, G.; Dr.nat.sci. – Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Embryonic development. *Sepiola rondeletii* (Cephalopoda)
- b Ultrastructure of eggs. *Sabellaria spec.*, *Hydrodoides norvegica* (Polychaeta), *Bolina spec.* (Ctenophora)
- c Ultrastructure of the oocyte. *Amphioxus lanceolatus* (Cephalochordata)
- d Characterization of mitochondrial DNA of unfertilized, fertilized, and cleaving egg. *Ciona intestinalis* (Asciidae)
- DFLLA CROCE, N.; Dr.nat.sci., Prof. – Ist. di Zool., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
- a Embryonic development of a parthenogenetic marine form. *Penilia avirostris* (Cladocera, Crustacea) (with S. BIFFANIN)

- b Growth of the embryo. Same species as a (with S. BETTANIN)
 c Formation of resting eggs. Same species as a (with S. BETTANIN)
 DE MATHAEIS, Ms. E.; Dr.biol.sci. – Ist. di Zool. “F. Raffaele”, Univ. di Roma, Viale dell’Università 32, 00161 ROMA, Italy
 DENIS, H. A.; Dr.ès Sci. – Centre de Génét. Moléc. du CNRS, 91190 GIF-sur-YVETTE, France
 a Mécanismes biochimiques de l’oogenèse. *Xenopus laevis* (Anura)
 DENKER, H.-W.; Dr.rer.nat., Dr.med. – Abt. Anat. der Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 51 AACHEN, B.R.D. (Germany)
- a Implantation: dissolution of blastocyst coverings, attachment, invasion (morphology, histochemistry, biochemical mechanisms, characterization and role of trophoblastic and uterine enzymes and inhibitors, particularly proteases and protease inhibitors, and their endocrine control). *Oryctolagus cuniculus* (Lagomorpha), *Mus musculus*, *Mesocricetus auratus*, *Cavia porcellus* (Rodentia), *Felis sylvestris catus* (Carnivora)
 b Determination of trophoblast and inner cell mass during cleavage and blastocyst formation. *Oryctolagus cuniculus* (Lagomorpha), *Mus musculus*, *Mesocricetus auratus* (Rodentia), *Felis sylvestris catus* (Carnivora)
 DENNE, M. P.; Ph.D. – Dept. of Forest. and Wood Sci., Univ. Coll. of North Wales, BANGOR, Gwynedd LL57 2UW, Wales, U.K.
 a Environmental control of xylem development. *Pinus sylvestris*, *Picea sitchensis* (Gymnospermae)
 DENNHÖFER, Ms. L.; Dr.rer.nat. – Inst. für Entw.physiol., Univ. zu Köln, Gyrhofstr. 17, 5 KÖLN 41, B.R.D. (Germany)
 a In vitro study of the relation between puffing and development of salivary gland chromosomes. *Drosophila melanogaster* (Diptera)
 b Development (growth) of salivary gland chromosomes in vitro. Same species as a
 DENOULET, Ph.; M.Sc. – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d’Ivry, 67 rue M.Günsbourg, 94200 IVRY-sur-SEINE, France
 a Biosynthesis of RNA during oogenesis. *Pleurodeles poireti* (Urodea)
 DENUCÉ, J. M.; Dr., Prof. – Dept. of Zool., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
 a Morphology, physiology, and biochemistry of the hatching glands. *Oryzias latipes*, *Brachydanio rericus* (Teleostei), *Xenopus laevis* (Anura), *Ciona intestinalis* (Asciacea)
 b Changes in protein pattern during development. *Ephydatia fluviatilis* (Porifera), *Bombyx mori* (Lepidoptera), *Oryzias latipes*, *Brachydanio rericus* (Teleostei)
 DEOL, M. S.; Ph.D., D.Sc. – Dept. of Human Genet. and Biometry, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
 a Developmental genetics of mutants with abnormalities of the inner ear. *Mus musculus* (Rodentia)
 b Developmental genetics of mutants with abnormalities of pigmentation. Same species as a
 c Mosaicism. Same species as a
 DEPARIS, P.; D.Sc., Prof. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
 a Hematopoiesis. (Amphibia)
 b Tissue transplantation. *Pleurodeles walti* (Urodea)
 c Hemoglobin switch (immunofluorescence; in vitro culture). (Urodea) (with A. M. DUPRAT and M. FLAVIN)
 DE PETROCELLIS, Ms. B.; Ph.D. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P.3042, 80100 Napoli, Italy
 a Enzymes controlling DNA synthesis in developing embryos. *Paracentrotus lividus* (Echinoidea)
 DE POMERAI, D. I.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Ultrastructure, immunology, and cell properties of lenses with normal and genetically modified cell membranes. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with R. M. CLAYTON and D. J. PRITCHARD)
 b Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with R. M. CLAYTON and D. J. PRITCHARD)
 c In vitro analysis of transdifferentiation of neural and pigmented retina. *Gallus domesticus* (Aves) (with R. M. CLAYTON and D. J. PRITCHARD)
 d In vitro analysis of teratogens. (with R. M. CLAYTON and D. J. PRITCHARD)
 DERAY, A.; Dr.3e Cycle – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France
 a Différenciation sexuelle des hybrides femelles et des individus des espèces parentes. (Aves) (avec L. GOMOT)
 DERI, P.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy
 a Chromosomal aspects of regeneration and development. *Dugesia benazzii* (Turbellaria)
 b Ultrastructural and electrophoretic aspects of oogenesis. (Nudibranchia, Gastropoda)
 DERKSEN, J.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
 a Biochemistry and ultrastructure of specific nuclear ribonucleoprotein fractions. *Drosophila hydei* (Diptera)
 DE SANTIS, R.; Dr. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy
 a Physiology of fertilization. *Ciona intestinalis*, *Ascidia malaca*, *Phallusia mammillata* (Asciacea)
 DESBIENS, X. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D’ASCQ, France
 a Limb morphogenesis. *Mus musculus* (Rodentia) (with A. BART)
 DESSER-WIEST, Ms. L.; Dr. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, WIEN, Austria
 a Growth regulation. (Rodentia)

- b Influence of hormones on liver regeneration. (Rodentia)
 DESTRÉE, O. H. J.; Drs. — Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Histones in early embryonic development. *Xenopus laevis* (Anura)
 DSVLAUX, F. X.; Dr.3e Cycle — Lab. d'Immunol. Comp., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Antibody response during ontogenesis. *Cyprinus carpio* (Teleostei)
 DSVLAUX (CHABROL), Ms. J.; Lic.Sci. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Biochemical and electromicrographic study of RNA metabolism in embryonic skin, lung and erythroblasts. *Gallus domesticus* (Aves)
 DFTTLAFF, Ms. T. A.; Dr.biol., Prof. — Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with E. V. CHULITZKAYA, P. F. FEULGENGAUER and A. S. STEPANOV)
 b Influence of environmental conditions and thyroxine on the reaction of the follicle to hormones. (Acipenseridae, Chondrostei) (with S. I. DAVIDOVA)
 DTURINNE, Ms. M.; Dr.Spéc. — Sect. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Control of DNA synthesis in the silk gland during the fifth instar: role of enzymes (DNA-polymerase, kinases, ribonucleotide-reductase) and pools of deoxyribonucleoside triphosphates. *Bombyx mori* (Lepidoptera)
 DEUCHAR, Ms. E. M.; Ph.D. — Dept. of Biol. Sci., Hatherly Labs., Univ. of Exeter, EXETER EX4 4PS, England
- a Effect of maternal diabetes on embryonic development in vivo and in vitro. *Rattus norvegicus* (Rodentia)
 DDEVRIES, J.; D.Sc. — Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Experimental embryology. (Oligochaeta)
 DFWES, E.; Dr. rer.nat. — Fachber. Biol.-Zool., Univ. des Saarlandes, 6600 SAARBRÜCKEN 11, B.R.D. (Germany)
- a Postembryonic differentiation and regeneration of imaginal discs in vivo and in vitro. *Ephesia kühniella* (Lepidoptera)
 DEXHIMER, J.; Prof. — Lab. of Bot. II (Cytol.), Univ. of Nancy I, C.O. 140, 54037 NANCY Cedex, France
- a Cell differentiation, especially in root tip. *Quercus* spp. (Fagaceae)
 DHAINAUT, A.; D.Sc. — Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France
- a Oogenesis in the absence of brain hormone. (Nereidae, Polychaeta)
 b Golgi complex evolution and polysaccharide secretion in the oocyte. *Nereis* spec. (Polychaeta)
 DHONDT, J. L. — Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France
- a Anatomy, histology, cytology and ultrastructure of larva, metamorphosis, and postlarva. *Aleyonidium polyoum*, *Bowerbankia imbricata*, *Flustrellidia hispida* (Ctenostomata, Ectoprocta)
 b Larva and metamorphosis. Various spp. (Cheilostomata; Cyclostomata, Ectoprocta)
 DHOUILLY, Ms. D.; D.Sc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France
- a Formation of barb ridges in feather filaments. *Gallus gallus*, *Anas platyrhynchos* (Aves)
 b Fine structure and composition of developing keratins. Same species as a, and *Mus musculus* (Rodentia). *Lacerta muralis* (Lacertilia)
 DICK, D. A. T.; D.Sc.; Prof. — Dept. of Anat., Med. Sci. Inst., Univ. of Dundee, Hawkhill, DUNDEE DD1 4HN, Scotland, U.K.
- a Distribution of ions in oocytes (electron microscope analysis; stereology). *Bufo bufo* (Anura)
 DIDIFR (MARTIN), Ms. E.; D.Sc. — Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Experiments on germ cell population and gonad organogenesis. *Gallus domesticus*, *Coturnix coturnix* (Aves)
 DIDIFR, R.; Dr.3e cycle — Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Action des herbicides 2,4,5-T et simazine sur l'embryon. (Aves)
 DHTERLEN (LIJ VRI), Ms. F.; D.Sc. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Experimental analysis of spleen morphogenesis. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
 b Origin of blood stem cells studied in early quail embryos grafted on chick yolk sac. Same species as a
 DGRANDI, Ms. F.; Dr. — Inst. of Zool., Univ. of Bologna, Via S.Giacomo 9, 40126 BOLOGNA, Italy
- a X-ray destruction of germ cells, sterile gonad development and sex differentiation. *Bufo bufo*, *Rana dalmatina* (Anura)
 b Descriptive and experimental study of development and sex differentiation of genital apparatus. *Sepia officinalis* (Cephalopoda)
 c Regeneration and origin of germ cells. *Mercierella enigmatica* (Serpulidae, Polychaeta)
 DILLON, Ms. K. J.; B.Sc. — Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England
- a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)

- b Biology of the trophoblast. Same species as a
- c Early embryonic development. *Mus musculus* (Rodentia)
- DOGTEROM, J.; Dr. — Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction with hormones during maturation and adaptation of the nervous system. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- DOHLE, W.; Dr.rer.nat. — Inst. Allg. Zool. und Exp. Morphol., Freie Univ., Kön.-Luise-Str.1-3, 1 BERLIN 33, B.R.D. (Germany)
- a Cell differentiation in the germ band. *Diastylis rathkei* (Ciliacea, Crustacea)
- b Germ band formation. *Gammarus pulex* (Amphipoda). *Neomysis vulgaris* (Mysidacea, Crustacea)
- c Differentiation of segmental structures during embryogenesis. *Julidae* (Diplopoda)
- DOHMEN, M. R.: Drs. — Zool. Lab., State Univ. of Utrecht, Transitorium III, Paduaalaan 8, Utrecht, Netherlands
- a Electron microscopy of developmentally significant cytoplasm and cell contacts in early cleavage. *Lymnaea stagnalis*, *Bithynia tentaculata*, *Crepidula fornicate* (Gastropoda)
- b Surface properties of eggs in relation to cytoplasmic localisations. *Nassarius reticulatus*, *Crepidula fornicate*, *Buccinum undatum* (Gastropoda)
- DOLCEMASCOLO, G.: Dr. — Ist. di Biol. Gen., Univ. di Palermo, Via Divisi 83, 90133 PALERMO, Italy
- a Histochemistry and ultrastructure of oogenesis and embryology. (Asciadiaceae) (with V. MANCUSO and M. GIANGUZZA)
- DOLLANDER, A.; Dr.méd., Prof. — Lab. d'Embryol., Univ. de Nancy 1, B.P.1080, 54019 NANCY Cedex, France
- a Développement de la langue et du larynx. *Homo sapiens* (Primates) (avec R. SEMBA, Japan et C. CHOFFEL)
- DOMENICH RATTO, G. — Dept. of Anat., Fac. of Med., MURCIA, Spain
- DONATO (CELII), Ms. A. — Ist. di Zool. e di Anat. Comp., Univ. di Messina, Via dei Verdi 75, 98100 MESSINA, Italy
- DONGEN, C. A. M. van; M.Sc. — Zool. Lab., State Univ. of Utrecht, Transitorium III, Paduaalaan 8, Utrecht, Netherlands
- a Significance of polar lobe material for the control of development (morphology, biochemistry). Dentalium spec. and others (Mollusca)
- b Significance of ooplasmic segregation for the control of pattern formation, determination and differentiation in early development (morphology, biochemistry). Same species as a
- DONKFLAAR, H. J. ten; Dr. — Dept. of Anat. and Embryol., Cathol. Univ., Geert Grootplein N.21, NIJMEGEN, Netherlands
- a Development of the basal ganglia. *Cricetus griseus* (Rodentia)
- DOORENMAALEN, W. J. van; M.D., Prof. — Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, Utrecht, Netherlands
- a Immunological and immunochemical investigations on lens induction and differentiation. (Aves), *Homo sapiens* (Primates)
- b Developmental mechanics of suturae cranii. *Rattus spec.* (Rodentia) (with H. A. J. OUDHOOF (Dent. School))
- DOREE, M.; D.Sc. — Stat. Biol., place Georges-Teissier, 29211 ROSCOFF, France
- a Hormonal control of meiosis reinitiation, cellular and biochemical aspects. *Marthasterias glacialis* (Asteroidea), *Xenopus laevis* (Anura)
- b Control of mitosis by N6-substituted adenins (cytokinins). (Plantae; Animalia)
- DOSKOČIL, M.; MUDr., D.Sc., Doc. — Dept. of Anat., Charles Univ., U nemoenice 3, 12800 PRAHA 2, Czechoslovakia
- a Development of the pineal body. *Gallus domesticus* (Aves)
- b Teratogenic action of new medicaments on early development. Same species as a
- DOSTÁL, M.; MUDr., CSc. — Inst. of Exp. Med., Dept. of Teratol., Czech. Acad. of Sci., Legerova 61, 120 00 PRAHA 2, Czechoslovakia
- a Development of the secondary palate under normal and experimental conditions. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- b Elaboration of an appropriate method for testing the teratogenic activity of drugs. Same species as a
- DOTT, H. M.; Dr. — A.R.C. Unit of Reprod. Physiol. & Biochem., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- DOUAY, F.; M.Sc. — Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Seed dormancy and germination. *Olea europaea* (Oleaceae)
- DOUGLAS, A. H. M.; B.Sc. — Dept. of Devl. Biol., Marischal Coll., Aberdeen Univ., ABERDEEN AB9 1AS, Scotland, U.K.
- a Growth and development of embryonic muscle in culture, especially balance between fibroblasts and myoblasts, and maintenance of myotubes. *Gallus domesticus* (Aves)
- DOUMENC, D. — Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France
- a Light and electron microscopy and histochemistry of metamorphosis. *Actinia equina*, *Cereus pedunculatus* (Actinozoa)
- DOWNIE, J. R.; Ph.D. — Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.
- a Cell behaviour, mainly epithelial cells, in the expansion of the blastoderm. *Gallus gallus* (Aves)
- b Development of specialised cell contacts in the early blastoderm. Same species as a
- DRAGOMIROV, N. I.; Dr.biol., Prof. — A.N.Severtzov Inst. of Evol. Morphol. and Ecol. of Animals. Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.

- a The organogenesis gradients in the spiracular section of the lateral sensory system. *Huso huso* (Chondrostei)
 DREWS, U.; Dr.med., Prof. – Anat. Inst. der Univ., Vesaliusweg 2-4, 44 MÜNSTER, B.R.D. (Germany)
- a Expression of Tfm (testicular feminization) and Sxr (sex reversed) in the development of male sex organs (epithelio-mesenchymal recombination). *Mus musculus* (Rodentia)
 b Cholinesterase activity in non-nervous embryonic tissues (histochemistry). Same species as a
 DROIN, Ms. A.; Dr.biol. – Stat. de Zool. Exp., Univ. de Genève, 154 route de Malagnou, 1224 CHÈNE-BOUGERIES, Switzerland
- DRUGA, Ms. A.; M.D. – Res. Inst. for Pharm. Chem., P.O.Box 82, 1325 BUDAPEST, Hungary
 a Teratogenetic effect of chemicals, especially drugs containing the piperazin ring. *Rattus norvegicus* (Rodentia)
- b Perphenazine induced micromelia (histology; topooptical reaction). Same species as a
 c The effect of phenobarbital and SKF 525-A pretreatment on the teratogenicity of perphenazine, to study whether the unchanged perphenazine is teratogenic or not. Same species as a
 DRUGA, R.; MUDr. – Dept.of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
 a Prenatal morphological development of basal ganglia. *Felis domestica* (Carnivora), *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- DRUKKER, J.; Ph.D. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O, Netherlands
 a Descriptive and experimental studies of the developing central and peripheral nervous system. *Gallus domesticus* (Aves)
 b Histochemical characteristics of developing chemoreceptor organs. *Oryctolagus cuniculus* (Lagomorpha), *Mus musculus*, *Rattus norvegicus* (Rodentia)
 c Embryology of the endocrine cells of the pancreas. Same species as a
- DÜBENDORFER, A.; Dr. phil.II – Zool.-Vergl. Anat. Inst., Univ. Zürich, Kästlergasse 16, 8006 ZÜRICH, Switzerland
 a Determination and cell lineage in imaginal discs. *Drosophila melanogaster* (Diptera)
 b Cell and tissue culture. Same species as a
- DUBOIS, R.; Dr. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
 a Lignée germimale et morphogenèse sexuelle. *Gallus gallus* (Aves) (avec D. CUMINGE)
 b Biosynthèse glycoprotéique dans les ébauches gonadiques (topochimie, cinéétique). Même espèce comme a
 c Effets des lectines sur l'amiboidisme des cellules germinales. Même espèce comme a
 d Aspects discontinus du renouvellement dans les systèmes biologiques à cloisonnement anatomique complexe. Même espèce comme a
- DUKE, E. J.; Ph.D. – Zool. Dept., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland
 a Molecular basis of drug-sensitivity and resistance during development of inbred lines (especially 5-fluorouracil, streptomycin, cytosine arabinoside). *Drosophila melanogaster* (Diptera)
 b Genetic and epigenetic mechanisms governing the expression of aldehyde oxidase and xanthine dehydrogenase in developmental stages. *Locusta migratoria* (Orthoptera), *Drosophila melanogaster* (Diptera), *Mus musculus* (Rodentia)
 c Carcinogenesis of embryonic cells cultured in vitro, induced by chemicals, viruses, irradiation and suitable subculturing. *Mus musculus*, *Cricetus cricetus* (Rodentia)
- DUNCAN, C. J.; Ph.D., Prof. – Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O.Box 147, LIVERPOOL L69 3BX, England
 a Factors affecting early differentiation (ionophore, calcium, electron microscopy). *Xenopus laevis* (Anura)
- DUNCKER, H. R.; Dr.rer.nat., Dr.med., Prof. - Zentrum für Anat. und Cytobiol., Justus Liebig Univ., Aulweg 123, 6300 GIESSEN, B.R.D. (Germany)
 a Embryological and post-hatching development of the lung-air sac system, especially the number and arrangement of secondary bronchi and parabronchi, and the parabronchial blood-air capillary network. *Columba* spec., *Gallus* spec., *Anas* spec., *Melopsittacus* spec., *Turdus* spec., *Passer* spec., *Taeniopygia* spec. and others (Aves)
 b Embryological development of celomic cavities and subdividing septa in correlation to development of the lung-air sac system and of the intestinal and urogenital tract. *Gallus* spec., *Anas* spec., *Columba* spec. and others (Aves)
- DUNN, G. A.; Ph.D. – Strangeways Res. Lab., Worts Causeway, CAMBRIDGE CB1 4RN, England
 a Cell relations in tissue culture. *Gallus gallus* (Aves), *Mus musculus* (Rodentia) (with M. ABERCROMBIE and J. P. HEATH)
- DUPRAT (ESCUDIÉ), Ms. A. M.; D.Sc. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
 a Determination and differentiation of cultured embryonic cells. (Urodea)
 b Role of non-histone chromatin proteins. (Urodea)
 c Hemoglobin switch (immunofluorescence; in vitro culture). (Urodea) (with P. DEPARIS and M. FLAVIN)
- DUPUIS (CERTAIN), Ms. P. – Lab. de Biol. Anim., Univ. Paris VI (P.et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
 a Histochemistry of steroid enzymes. *Discoglossus* spec. (Anura), *Pleurodeles* spec. (Urodea)
- DURAND, J. P.; D.Sc. – Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
 a Reproduction and development of cave dwelling forms. (Teleostei; Urodea)
 b Experiments on ontogenesis and eye degeneration

- DURANTE, Ms. M. C.; D.Sc., Prof. — Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Ribosomal RNA synthesis during opercular regeneration. *Hydrodoides norvegica* (Polychaeta)
 - b Cyclic nucleotides during embryonic development. *Ciona intestinalis* (Asciidae)
- DURCHON, M.; Prof. — Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D'ASCQ, France
- a Endocrine control of gametogenesis and metamorphosis. (Polychaeta)
- DURST (ŽIVKOVIĆ), Ms. B.; M.D., D.Sc — Inst. of Histol. and Embryol., Fac.of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Differentiation of the stroma of chorionic villi. *Homo sapiens* (Primates)
- DURSTON, A. J.; Ph.D. — Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalan 8, 3584 CT UTRECHT, Netherlands
- a Pattern formation: control of cell movement and differentiation. *Dictyostelium* (Acrasiales)
- DUSPIVA, F.; Dr., Prof. (Emer.) — Physiol. Lehrst., Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, B.R.D. (Germany)
- a Localization of enzymes within the embryo and in subcellular fractions. *Acheta domesticus* (Orthoptera), *Dysdercus intermedius* (Heteroptera)
 - b Protein differentiation, ontogeny of enzyme patterns. Same species as a
 - c Energy metabolism and metabolism of nucleic acids, nucleotides, and cofactors during development. Same species as a
 - d Nucleic acids in oogenesis. *Dysdercus intermedius* (Heteroptera)
- DUTTON, G. J.; Ph.D., D.Sc. — Dept. of Biochem., Med. Sci. Inst., Univ., DUNDEE DD1 4HN, Scotland, U.K.
- a Developmental biochemistry of "detoxicating" enzymes in embryonic, fetal, and neonatal tissues (tissue culture). *Gallus domesticus* (Aves), *Mus musculus*, *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
 - b Xenobiotic and endocrinological factors affecting development of detoxicating and carbohydrate-metabolising enzymes. Same species as a
- DYER, H.McM.; B.Sc., M.B., Ch.B. — Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
- a The effects of hyperglycaemia and insulin on embryonic tissues grown in vitro. *Gallus gallus* (Aves)
 - b The differentiation of adipose tissue in vitro. Same species as a
- DYLEVSKÝ, I.; MUDr., Doc. — Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
- a Prenatal development of muscles and connective tissue. *Homo sapiens* (Primates)
- DYSON (DEPLEDGE), Ms. M.; Ph.D. — Dept. of Anat., Guy's Hosp. Med. School, LONDON SE1 9RT, England
- a Mechanism and effect of ultrasonically induced red cell stasis on development. *Gallus domesticus* (Aves)
 - b Stimulation of tissue regeneration by ultrasound: 1. protein synthesis; 2. cell mobility. *Rattus spec.* (Rodentia)
- EBENDAL, T.; Ph.D. — Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Factors influencing neuron differentiation in embryonic ganglia in culture. *Gallus domesticus* (Aves)
 - b Orientational mechanisms in migrating cells and extending axons in vitro and in vivo
- ECKSTEIN, P.; M.D., D.Sc., Prof. — Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a Mode of action of intra-uterine devices: 1. hormone concentrations in blood at critical stages of cycle and gestation; 2 enzymic and hormonal composition of uterine secretions; 3. tissue reactions to intra-uterine materials. *Mus musculus* (Rodentia); *Macaca mulatta*, *Papio papio* (Primates)
 - b Recovery and attempted transfer of eggs. *Macaca mulatta* (Primates)
- EDE, D. A.; Ph.D. — Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.
- a Experimental studies on limb bud development. *Gallus gallus* (Aves)
 - b The cellular basis of morphogenesis using embryological mutants. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia)
- EDWARDS, J. G.; Ph.D. — Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K.
- a Formation of adhesions in reaggregating cells: embryonic cells, *Gallus domesticus* (Aves), cultured cell lines, various species
- EDWARDS, R. G.; D.Sc. — Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
- a Conception. (Mammalia)
- EEKEN, J. C. J.; Drs. — Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Changes in ultrastructure, protein and RNA synthesis of salivary glands during puparium formation in relation to the action of ecdysterone. *Drosophila lebanonensis* (Diptera)
 - b The influence of controlling factors provided by the physiological clock on timing of puparium formation. Same species as a
- EFIMOV, E. A.; Cand. biol.sci. — Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St.3, MOSCOW 117469, U.S.S.R.
- a Regeneration of skin. *Erinaceus europaeus* (Insectivora), *Martes zibellina*, *Vulpes vulpes*, *Alopex lagopus*, *Felis catus*, *Mustela lutreola* (Carnivora), *Gallus gallus*, *Columba livia* (Aves)

- EFREMOVA, Ms. S. M.; Cand.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Development and metamorphosis (histology, ultrastructure, autoradiography). Zubomirska baicalensis, Baikilospongia bacillifera (Porifera)
- EGBERTS, D. J. N.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Effect of hormones on DNA synthesis, proliferation and differentiation in imaginal discs. Calliphora erythrocephala (Diptera)
- EGELHAAF, A.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Weyertal 119, 500 KÖLN 41, B.R.D. (Germany)
- a Genetic basis of eye pigment differentiation. *Epeorus kühniella* (Lepidoptera)
- b Gene action in morphogenesis. Same species as a, and *Drosophila melanogaster* (Diptera)
- c Differentiation of the eye and optic lobe during metamorphosis, especially retina-lamina projections. Same species as a
- EHN, J. A.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Embryology. (Arachnoidea)
- EKBLOM, P.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with L. O. SAXÉN, J. J. WARTIOVAARA, E. LEHTONEN, S. NORDLING and J. SALONEN)
- ELBLING, Ms. L.; Dr.phil. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, A-1090 WIEN, Austria
- a Induction of teratogenesis and carcinogenesis by hormones and other substances in ova and preimplantation stages in vivo and in vitro. (Mammalia)
- b Formation of chimaeric embryos. (Mammalia)
- ELGER, W.; M.D. – Dept. of Endocr. Pharmacol., Schering AG, Müllerstr. 170-178, Postfach 650311, 1 BERLIN 65, B.R.D. (Germany)
- a Diethylstilboestrol (DES)-induced "vaginal" cancer. *Mus musculus*, *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- EL HAJZEIN, B.; M.Sc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Apical dominance: 1. influence of the leaves according to their developmental stage; 2. growth correlations between lateral buds. *Gleditsia triacanthos* (Leguminosae)
- ELIASSON (KLEIN), Ms. E.; Fil.Dr. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Enzyme induction and repression, particularly arginase. *Gallus* spec (Aves)
- b Induction and repression of enzyme synthesis in cells in tissue culture. *Homo sapiens* (Primates)
- c Regulation of synthesis of transfer RNA. (Mammalia)
- EL KEBIR (YAZID), Ms. F. – Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- ELSDALE, T. R.; Ph.D. – Clin. and Popul. Cytogenet. Res. Unit, Western Gen. Hosp., EDINBURGH EH4 2XV, Scotland, U.K.
- EMANUELSSON, H.; Fil.Dr. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3, 223 62 LUND, Sweden
- EMELIANOV, S. V. † Prof. – USSR Acad. of Sci., MOSCOW, U.S.S.R.
- EMERIT, M.; D.Sc. – Lab. de Zool.II (Morphol. et Écol.), Univ. des Sci. et Techn. du Languedoc, place E.Bataillon, 34060 MONTPELLIER, France
- a Embryonic and postembryonic development. *Gasteracantha* spec., *Isoxya* spec., *Acrosomoides* spec. (Gasteracanthinae, Araneida, Arachnida)
- EMIG, C. C.; D.Sc. – Station Marine d'Endoume, Univ. d'Aix-Marseille, Rue de la Batterie des Lions, 13007 MARSEILLE, France
- a Comparison of asexual reproduction with ontogenesis and phylogenesis, especially of nephridia and mesenteries. (Phoronida)
- b Anatomy, embryology, development, regeneration; phylogenetic affinities (Phoronida; Brachiopoda)
- EMMERT, W.; Dr.rer.nat., Prof. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
- ENGELS, W.; Dr.rer.nat., Prof. – Inst. für Biol.III, Lehrst. Entw. physiol., Univ. Tübingen, Auf der Morgenstelle 28, 7400 TÜBINGEN, B.R.D. (Germany)
- ENGLAND, Ms. M. A.; Ph.D. – Dept. of Anat., Univ. of Leicester, University Rd., LEICESTER LE1 7RH, England
- a Primary neural induction. *Gallus domesticus* (Aves)
- b Cell shapes and movements in the early embryo. Same species as a (with J. WAKELY)
- ENGLÄNDER, H.; Dr.med., Dr.rer.nat., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
- a Regionalspezifische Induktion. *Ambystoma mexicanum*, *Triturus vulgaris*, *T. helveticus*, *T. alpestris* (Urodela)
- b Die Wirkung von Lithium auf die Differenzierungsleistung des Ektoderms. Dieselben Arten wie a
- c Disaggregation und Reaggregation von frühembryonalem Gewebe. Dieselben Arten wie a
- EPPENBERGER, H. M.; Ph.D., Prof. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Phylogeny and ontogeny of phosphagen kinases. (Insecta; Pisces; Aves)
- b Myogenesis in vitro. *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
- c Myofibrillar organellogenesis. *Gallus domesticus* (Aves)

- ERDELSKÁ, Ms. O.; RNDr., CSc. – Inst. of Exp. Biol. and Ecol., Slovak. Acad. of Sci., Dúbravská 26, 88534 BRATISLAVA, Czechoslovakia
- a Microcinematography of the embryo sac before and shortly after fertilization. *Galanthus nivalis* (Amaryllidaceae), *Torenia fournieri* (Scrophulariaceae)
 - b Embryogenesis in situ and the development of embryos in culture. *Linum usitatissimum* (Linaceae), *Jasione montana* (Campanulaceae)
- EVANGELISTI, Ms. R.; Dr.Sci.Biol. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
- a Induction of yolk protein synthesis in cultured embryonic liver cells. *Gallus domesticus* (Aves)
- EVANS, A. J.; Ph.D. – Poultry Res. Ctr., Agric. Res. Coun., King's Bldgs., West Mains Rd., EDINBURGH EH9 3JS, Scotland, U.K.
- a Yolk transport mechanism in ovarian follicle. *Gallus domesticus* (Aves)
- EVANS, C. W.; Ph.D. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K.
- a Measurement of cell adhesion of lymphocytes and its role in circulation, disease and development. *Mus musculus* (Rodentia)
 - b Effect of immune recognition on reproduction, development and colony formation. Various spp. (Demospongiae, Porifera)
- EVANS, M. J.; Ph.D. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a In vitro and in vivo growth, determination, and differentiation of teratoma cells. *Mus musculus* (Rodentia)
- EVANS, P. M.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, U.K.
- a Sorting out in mixed aggregates of embryonic tissue cells. *Gallus domesticus* (Aves)
 - b Role of surface carbohydrates in cellular adhesiveness. Same species as a
- FABER, J.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalan 8, 3584 CT UTRECHT, Netherlands
- FACCIO (DOLFINI), Ms. S.; D.Sc. – Ist. di Genet., Univ. di Milano, via Celoria 10, 20133 MILANO, Italy
- a Development and cytology of cultured cells. *Drosophila melanogaster* (Diptera)
 - b Cytological aspects of heterochromatin. Same species as a
- FACHBACH, G.; Dr.phil. – Zool. Inst. der Univ., Universitätsplatz 2, A 8010 GRAZ, Austria
- FALEEVA, Ms. T. I. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
- a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
- FALUGI, Ms. C.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
- a Effects of cholinesterase inhibitors on development (Asciidae; Echinoidea)
 - b Acetylcholine receptors in eggs and early embryos. Same species as a
 - c Naphthylamidase activities in eggs and embryos. (Cirripedia & Branchiopoda: Crustacea)
- FANGHANEL, J.; Dr.sc.med. – Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr.9, 25 ROSTOCK 1, D.D.R. (Germany)
- FARGEIX, N.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Lignée germinale et morphogénèse gonadique (Aves)
- FARINA, Ms. E.; Dr. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- FARINELLA (FERRUZZA), Ms. N.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Hybridization. (Asciidae)
 - b Xenoplastic transplantation. *Discoglossus pictus* (Anura), *Triturus cristatus* (Urodea)
 - c RNA synthesis in egg development. *Ciona intestinalis*, *Ascidia malaca*, *Clavellina lepadiformis* (Asciidae)
 - d Embryonic and post-larval development. *Molgula impura* (Asciidae)
 - e Action of hydrostatic pressure on embryonic development. *Ascidia malaca*, *Ciona intestinalis*, *Ascidia aspersa* (Asciidae)
 - f Hybrids from fused gigantic eggs. Same species as e
- FARNESI, Ms. R. M.; Dr. – Ist. di Anat. Comp., Univ. di Perugia, via A. Pascoli, 06100 PERUGIA, Italy
- a Spermiogenesis. *Dugesia lugubris* (Turbellaria)
 - b Histochemistry and ultrastructure of the cocoon. *Branchiobdella pentodonta* (Oligochaeta)
 - c Histochemistry and ultrastructure of a frontal structure present in larva and adult. *Trissolcus* spp. (Hymenoptera)
- FAUCOUNAU, Ms. N.; Lic.Sc. – Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, 146 rue Leo-Saignat, 33076 BORDEAUX Cedex, France
- a Role of thyroid hormones in teratogenesis. *Gallus gallus* (Aves)
- FAUTREZ, J. C.; M.D., Prof. – Lab. of Anat., Univ. of Gent, Ledeganckstr. 35, 9000 GENT, Belgium
- FAZEKAS-TODEA, Ms. I.; M.D. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Experimental teratology. *Gallus domesticus* (Aves)
 - b Development of embryonic axial organs (somitogenesis). Same species as a
- FEDECKA (BRUNER), Ms. B.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Enzyme synthesis and activation during development. *Gallus gallus* (Aves)
- FEIERTAG (KOPPEN), Ms. C. C. M.; Drs. – Vakgroep Genetica, State Univ. of Groningen, Biol. Ctr., Vleugel A, HAREN 8045, Netherlands
- a Oogenesis and fertilisation; parthenogenesis. *Tetranychus urticae* (Acari, Arachnida)

- FEJERSKOV, O.; Dr.lic.odont., Prof. — Dept. of Dent. Pathol. and Operat. Dent., Royal Dent. Coll., Vennelyst Blvd., 8000 ARHUS C, Denmark
- a Migrating epithelial cells in palatal wounds: cytology; scanning electron microscopy; morphometry; treatment with anti-neutrophilic serum. *Cavia porcellus* (Rodentia) (with L. ANDERSEN)
 - b Electron microscopy of tooth development in vitro. *Mus musculus* (Rodentia) (with I. THESLEFF and K. JOSEPHSEN)
- FELBER, Ms. B.; cand.phil. — Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahlstr.8, 3012 BERN, Switzerland
- a Estrogen-dependent synthesis of vitellogenin in vitro. *Xenopus laevis* (Anura)
- FELIX, J. M.; D.Sc. — Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France
- a Pre- and postnatal functional maturation of the hepatocyte. *Rattus norvegicus* (Rodentia) (with R. L. JACQUOT and C. LEGRELE)
- FELL, Dame Honor B. — Dept. of Pathol., Div. of Immunol., Univ. of Cambridge, Lab. Block, Addinbrooke's Hosp., Hills Rd., CAMBRIDGE CB2 2QQ, England
- FENSON, A. H.; Ph.D. — Paediat. Res. Unit, Guy's Hosp. Med. Sch., Guy's Tower, LONDON SE1 9RT, England
- a Development of enzyme systems before and after birth. *Homo sapiens* (Primates)
- FERNANDEZ, Ms. M.; Dr.Biol. — Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
- a The recessive semi-lethal factor ac: temperature-sensitivity of homozygous mutants; maternal effect in the progeny of mutant females. *Pleurodeles waltl* (Urodela) (with J. C. BEETSCHEN)
- FERNHOLM, B.; Dr., Prof. — Roskilde Univ. Ctr., Nat. Box 260, 4000 ROSKILDE, Denmark
- a Embryology of endocrine organs. *Eptatretus burgeri*, *E. stouti*, *Myxine glutinosa* (Cyclostomata)
- FERRIER, Ms. A.; M.D. — Lab. of Embryol. and Cytogenet., Univ. Clinic of Gynecol. and Obstet., Geneva Univ., 20 rue Alcide-Jentzer, 1211 GENEVE 4, Switzerland
- FERRIER, V.; Lic.ès Sci. — Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Route de Narbonne, 31077 TOULOUSE Cedex, France
- a Experimental gynogenesis. *Pleurodeles waltl* (Urodela) (with A. JAYLET)
 - b Chemical mutagenesis. Same species as a (with J. C. BEETSCHEN and A. JAYLET)
- FERRINI, U.; M.D., Prof. — Ist. di Zool. "Federico Raffaele", Viale dell' Università 32, 00161, ROMA, Italy
- Biophys. Lab., Canc. Inst. Regina Elena, Viale Regina Elena 291/295, 00161 ROMA (7), Italy
- FERRUS, A.; Ph.D. — Sect. Devl. Genet., Inst. of Genet. CSIC, Ctr. of Molec. Biol., Univ. Autónoma de Madrid, Canto Blanco, MADRID 34, Spain
- a Morphogenetic mutants in the wing disc. *Drosophila* spec. (Diptera)
 - b Developmental genetics of the nervous system. Same species as a
- FEULGENGAUER, P. E. — Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DETTLAFF, E. V. CHULITZKAYA and A. S. STEPANOV)
- FICKENTSCHER, K.; Dr.rer.nat., Prof. — Pharmaceut. Inst., Univ. of Bonn, An der Immenburg 4, 5300 BONN-Endenich, B.R.D. (Germany)
- a Intercalation of thalidomide analogues into the DNA of *Escherichia coli*
 - b Placental passage of dibromo-maleimimid. *Mus musculus* (Rodentia)
- FICQ, Ms. A. A.; D.Sc., Prof. — Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Observations autoradiographiques sur l'oogenèse et la morphogenèse. (Anura)
 - b DNA synthesis during early oogenesis. *Xenopus laevis* (Anura)
 - c Template activities of chromatin in meiotic cells. Same species as b
 - d Protein metabolism in early oogenesis. *Xenopus laevis* (Anura), *Ambystoma mexicanum* (Urodela)
 - e DNA, RNA, and protein metabolism in pachytene cells during amplification of rDNA (autoradiography). Same species as b
 - f Effect of protease inhibitors on early meiosis. Same species as b
 - g In situ effects of *Neurospora crassa* S1 endonuclease on pachytene chromatin at metamorphosis. Same species as b
- FILOGAMO, G.; M.D., Prof. — Dept. of Human Anat., Univ. of Torino, Corso M.d'Azelegio 52, 10126 TORINO, Italy
- a Neurogenic control versus autonomous determination of muscle cell in vivo and in vitro. *Gallus domesticus* (Aves)
 - b The formation of "en plaque" synaptic structures. Same species as a
- FILONI, S.; Dr.Biol. — Ist. di Anat. Comp. "Battista Grassi", Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
- FILOSA PARISI, Ms. S.; Dr. — Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
- FINCHAM, A. A.; Ph.D. — Dept. of Zool., Brit. Museum (Nat. Hist.), Cromwell Rd., LONDON SW7 5BD, England
- a Larval development (laboratory rearing). (Natantia, Decapoda, Crustacea)
- FIORONI, P.; Dr.phil., Prof. — Zool. Inst. der Univ., Lehrst. für spez. Zool., Hüfferstr. 1, 44 MÜNSTER, B.R.D. (Germany)
- a Ultrastructure of early cell differentiation. *Nassarius* spec., *Lymnaea* spec. and others (Gastropoda)
 - b Comparative histology, ultrastructure, and biology of embryonic nutrition (yolk, albumen, food-eggs). Many genera (Gastropoda)

- c Histology and ultrastructure of yolk resorption and development of yolk syncytium and intestine. Lolio and others (Cephalopoda)
- d Histology, ultrastructure, and experimental study of yolk resorption. Brachydanio and others (Teleostei)
- e Comparative histology and ultrastructure of the role of I-cells, especially in the formation of gonangia and gonophores. Many genera (Thecata & Athecata: Hydrozoa)
- FISCHER, A.; Dr.rer.nat., Prof. — Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Course of biochemical development of oocytes; mode of oocyte size synchronization during oogenesis. Platynereis dumerilii, Nereis virens (Polychaeta)
- b Structural development of egg follicles with nutritive cells. Piscicola spec. (Hirudinea)
- FISCHER, J. L. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Action des rayons X sur la morphogenèse des arcs aortiques. Gallus domesticus (Aves)
- b Malformations. (Anura; Urodela)
- c Les effets tératogènes de l'hypothermie sur l'embryon. Même espèce comme a
- FLAVIN, Ms. M.; Dr.biol. — Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
- a Structure of larval and adult haemoglobins; globin gene expression during development. (Urodela)
- b Hemoglobin switch (immunofluorescence; in vitro culture). (Urodela) (with A. M. DUPRAT and P. DEPARIS)
- FLÉCHON, J. E. — Lab. de Physiol. Anim., Ctr. Natl. de Rech. Zootechn., I.N.R.A., 78350 JOUY-en-JOSAS, France
- a Ultrastructure and cytochemistry of cumulus cells, corona, zona pellucida and egg cortex before and after fertilization. Bos taurus, Ovis aries, Sus scrofa domesticus (Artiodactyla), Oryctolagus cuniculus (Lagomorpha)
- b Ultrastructure of preimplantation blastocysts at different stages and after in vitro culture and freezing. Same species as a
- FLINT, O. P.; Ph. D. — Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.
- a Behaviour and differentiation of normal and mutant cells in vivo and in vitro. Gallus gallus (Aves)
- b Analysis of developmental mutants. Mus musculus (Rodentia)
- FLOOD, P. R.; M.D., Assoc. Prof. — Inst. of Anat., Univ. of Bergen, Arstadvei 19, 5000 BERGEN, Norway
- a Ultrastructure of skeletal muscle fibre types during ontogenesis. Branchiostoma lanceolatum (Cephalochordata), Lampetra fluviatilis (Cyclostomata)
- b Ultrastructure of early development. Branchiostoma lanceolatum (Cephalochordata)
- FOLIGUET, B. — Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Histogénése du poumon. Rattus norvegicus (Rodentia)
- FONTAINE, Ms. J. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Origin and differentiation of some APUD endocrine cells in the embryo. (Aves; Mammalia)
- b Experiments on the absence of thymus development in the nude mutant. Mus musculus (Rodentia)
- FONTÈS, M. — Lab. d'Histo. et Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 Rte Léon Lachamp, 13288 MARSEILLE Cedex 2, France
- a Variations in structure and function of genetic material during the dedifferentiation phase of traumatic regeneration; possibilities of cell reprogramming during this phenomenon. Owenia fusiformis (Polychaeta)
- FORD, P. J.; D.Phil. — Dept. of Molec. Biol., Univ. of Edinburgh, King's Buildings, Mayfield Rd., EDINBURGH EH9 3JR, Scotland, U.K.
- a Control of protein and nucleic acid synthesis during oogenesis (especially 5s RNA, informational RNA). Xenopus laevis (Anura)
- FOURCHE, J.; D.Sc. — Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Energetic metabolism during nymphal diapause; influence of external factors. Pieris brassicae (Lepidoptera)
- b Thermal adaptation during diapause. Same species as a
- FOURNIER, B.; D.Sc. — Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Experiments on leg morphogenesis in the embryo in vivo and in vitro. Carausius spec. (Phasmida)
- b Ecdysterone and embryonic leg regeneration. Same species as a
- c Cephalic endocrine glands and embryonic regeneration. Same species as a (with J. ROGUEDA)
- FOX, H.; Ph.D., D.Sc. — Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Tail degeneration (electron microscopy, histochemistry). Rana temporaria, Xenopus laevis (Anura)
- b Ultrastructure of larval tissues. Same species as a
- c Larval growth. Same species as a (with S. C. TURNER, Portsmouth)
- d Morphological and experimental study on origin and development of Merkel cells and chemosensory cells in larval epidermis. Many spp. (Anura & Urodela) (with M. WHITEAR)
- FRAGOULIS, E.; Dr.rer.nat. — Dept. of Gen. Biol., Univ. of Athens, Panepistimiopolis, Kouponia (621), ATHENS, Greece
- a Dopa decarboxylase from several mutants. Drosophila melanogaster (Diptera)

- b Ribosomal proteins during development. *Antherea pernyi* (Lepidoptera)
 FRANCE, V. M.; Ph.D. – Dept. of Physiol., King's Coll., LONDON WC2R 2LS, England
- a Causative factors for gallstone formation in fetus; steroid action on fluid transport in gallbladders in vitro; analysis of bile for pancreatic enzymes. *Cavia porcellus* (Rodentia), *Ovis aries* (Artiodactyla)
- b Effects of prolactin, theophylline, ethacrynic acid and vasopressin on amnion conductance, chloride fluxes and on fluid movement across amnion in vitro. *Ovis aries*, *Sus scrofa domesticus* (Artiodactyla)
- FRANCHI, L. L.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a Fine structure of normal and irradiated male and female germ cells. (Rodentia; Primates)
- b Structure and function of chromosomes in oocytes in relation to radiosensitivity. (Rodentia; Carnivora; Primates and others)
- FRANCO, Ms. N.; Lic.Sci. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Cytogenèse de l'adénohypophyse. *Gallus domesticus* (Aves)
- FRANKENHUIS, M. T.; D.V.M. – Vet. Anat. and Embryol. Inst., State Univ. of Utrecht, Bekkerstraat 141, UTRECHT, Netherlands
- a Effect of increasing scrotal temperature on testicular morphology in neonate. *Sus scrofa domesticus* (Artiodactyla)
- b Effect of decreasing the temperature of the abdominal testis in cryptorchids on initiation of spermatogenesis. Same species as a
- FRANQUINET, R.; Dr.3e Cycle – Lab. de Biol. Anim., Univ. Paris XII (Val de Marne), av. du Gén. de Gaulle, CRÉTEIL, France
- a Membrane mediators (cyclic AMP, cyclic GMP) during regeneration; role of hormones and neurotransmitters. Planariidae (Turbellaria)
- FRANZÉN, A. S.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Comparative studies of spermatozoon and spermatogenesis. (Invertebrata)
- b Larval development. (Brachiopoda; Entoprocta)
- FRASCHINI, Ms. A.; Ph.D., Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
- a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). *Rattus rattus* (Rodentia)
- b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
- FRASER, Ms. L. REPSIS; Ph.D. – Clin. Res. Centre, Watford Rd., HARROW, Middlesex HA1 3UJ, England
- a In vitro fertilization: effects of gamete age, culture conditions, etc., on developmental potential and on chromosomal complements. *Mus musculus* (Rodentia)
- FRETTER, Ms. V.; Ph.D., D.Sc. – Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England
- a Veliger larvae: structure, feeding, food requirements, digestion, structural changes at metamorphosis, coastal spp. (Prosobranchia, Gastropoda)
- FREUND, Ms. E.; Dr.agr. – Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr. 9, 25 ROSTOCK 1, D.D.R. (Germany)
- FREY, M.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Electron microscopy of giant chromosomes. *Chironomus* spec. (Diptera)
- FREYSSINET, G.; Dr.spéc. – Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Analysis and synthesis of ribosomal proteins. *Euglena gracilis* (Euglenophyceae)
- b Nutritional requirements for chloroplast formation. Same species as a
- FRIED (MONTAUFIER), Ms. M. C.; D.E.S. – Lab. de Génét. Évolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France
- FULCRAND, J.; Dr.Sci. – Lab. de Neurophysiol., Univ. des Sci. et Techn. du Languedoc, Place E. Bataillon, 34060 MONTPELLIER Cedex, France
- a Ontogénèse et dégénérescence expérimentale des voies visuelles (radioautographie). *Rattus norvegicus* (Rodentia)
- GABAJEVA, Ms. N. S.; Cand.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Follicular epithelium morphology during oogenesis. *Hemichromis multicolor* (Teleostei)
- b Comparative study of structure and functions of follicular epithelium in oogenesis. *Lampetra fluviatilis* (Cyclostomata), *Xiphophorus* spec. (Teleostei), *Agama caucasica* (Lacertilia), *Testudo horsfieldi* (Chelonia), *Gallus domesticus* (Aves)
- GABRIEL-ROBEZ (KREMER), Ms. O.; Dr.méd. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
- a Teratogenic effects of venoms and oestrogens. (Aves; Mammalia)
- b Urogenital system abnormalities. *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- c Fractionation of *Vipera aspis* venom by gradient chromatography; teratogenic activity of the separated proteins compared to that of the whole venom
- d Pseudohypoaldrenocorticism (salt wasting syndrome); attempt to induce insensitivity to aldosterone of renal tubules of newborn by administering an antagonist (spironolactone) to the fetus. *Mus musculus* (Rodentia)
- GABRION (TROTIGNON), Ms. J. B.; D.Sc. – Lab. d'Histol. et d'Embryol., Univ. de Montpellier, 2

- rue École de Médecine, 34060 MONTPELLIER Cedex, France
- a Origin of polarity in thyroid cells cultured in vitro (microtubules, microfilaments; cytochemistry).
- GAILLARD, J. A.; M.D. – Lab. d'Histo-Pathol., Inst. Pasteur, 25 rue du Docteur Roux, 75015 PARIS, France
- a Embryonic tumors; germ cell tumors; dysembryomas of ovary and testis; blastemal tumors. *Homo sapiens* (Primates)
- b Comparative developmental morphology of embryoids and first stages of normal ova. Same species as a
- c Extra-embryonic structures in embryomas. Same species as a
- d Experimental teratomas. *Mus musculus* (Rodentia)
- e Odontogenesis as a model of organogenesis in an ovarian teratoma (serial sections). Same species as a
- f Comparative study of natural and experimentally induced yolk-sac tumours. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- GAILLARD, P. J.; M.D., Prof. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Hormones and bone development (organ culture, enzyme chemistry, isotope techniques). *Mus musculus* (Rodentia)
- b Imidazol and its derivates and bone development (organ culture). Same species as a
- GAINO, Ms. E.; Dr.biol.sci. – Ist. di Zool., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
- a Sexual dimorphism in the embryos of a parthenogenetic form. *Penilia avirostris* (Cladocera, Crustacea)
- GAJÓ, Ms. M.; M.D. – Dept. of Anat., Univ. Med. Sch., Kossuth Lajos út 40, P.O.Box 512, 6701 SZEGED, Hungary
- a Developmental histochemistry and electron microscopy of the autonomic ground plexus. *Rattus rattus* (Rodentia) (with B. CSILLIK, E. KNYIHÁR and G. KÁLMÁN)
- GALAND, G.; D.E.S. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France
- a Functional development of small intestine. *Rattus norvegicus* (Rodentia)
- GALLERA, J.; D.Sc. – Lab. d'Embryol. Exp., Inst. d'Histol., Univ. de Genève, 20 rue de l'Ecole de Médecine, 1211 GENÈVE 4, Switzerland
- GALLIEN, C. L.; D.Sc., Prof. – Lab. de Biol. du Dévl., Univ. Paris V (René Descartes), 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
- a Chronological study of nuclear and cytoplasmic activity by interspecific nuclear graft. (Amphibia)
- b Action of different types and doses of irradiation on the development of isogenic embryos. *Pleurodeles waltl*, *Ambystoma mexicanum* (Urodela)
- c Deep freezing of eggs. *Pleurodeles waltl* (Urodela)
- GALLO, Ms. V.; Dr.biol.sci. – Ist. di Zool. "F.Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
- GALLOIS-DIDELOT, Ms. D. – U.E.R. de Biol.-Zool., Univ. Paris VI, 105 Bd. Raspail, 75006 PARIS, France
- a Genesis of male and female genital ducts and accessory glands in embryo and larva. *Locusta migratoria* (Orthoptera)
- GAMBLE, H. J.; Ph.D. – Dept. of Anat., St. Thomas's Hosp. Med. School, Lambeth Palace Rd., LONDON SE1 7EH, England
- a Development of peripheral nervous tissues in the foetus. *Homo sapiens* (Primates)
- b Development of blood vessels in the central nervous system. Same species as a
- GARCÍA AUSTT, E.; M.D. – Cienc. Fisiol., Fac. de Med., Univ. Autónoma, Arzobispo Morcillo 1, MADRID 34, Spain
- GARCÍA-BELLIDO, A.; Ph.D. – Sect. Devl. Genet., Inst. of Genet. CSIC, Ctr. of Molec. Biol., Univ. Autónoma de Madrid, Canto Blanco, MADRID 34, Spain
- a Developmental and genetic analysis of the wing imaginal disc; development in situ and in culture. *Drosophila melanogaster* (Diptera)
- b Nature of the specificity of cell recognition in cell aggregates of imaginal discs; cell affinities of normal versus mutant genotypes. Same species as a
- GARCIA GARCIA, J. D.; Med.Dr., Prof. – Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
- a Cardiac morphogenesis. *Homo sapiens* (Primates)
- b Morphogenesis of nervous system in the fetus. Same species as a
- GARCIA-PORRERO, J. A.; Dr.Med. – Serv. de Embriol. Exp., Dept. de Anat., Fac. de Med., SANTANDER, Spain
- a Role of mucopolysaccharides in normal and abnormal morphogenesis of the kidney (histochemistry). *Oryctolagus cuniculus* (Lagomorpha)
- GARCIA VALDECASAS HUELIN, J. M.; Dr. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain
- a Development of the primary stages of the ear. *Gallus domesticus* (Aves)
- GARDENGHI, G.; Dr., Prof. – Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLOGNA, Italy
- a In vitro culture of larval gonads. *Bufo bufo* (Anura)
- b Hormonic regulation of ovarian and Bidder's organ oogenesis. Same species as a
- c Developmental biology. *Macquartia chalconota* (Larvaevoridae, Diptera)

- GARDNER, R.; D.Phil. — Zool. Dept., Oxford Univ., South Parks Rd., OXFORD OX1 3PS, England
 a Determination during early development. *Mus musculus* (Rodentia)
 b Mechanism of X-chromosome inactivation. Same species as a
- GAREL, J.-M.; Dr. — Lab. de Physiol. du Dével., Univ. P. et M. Curie, 9 quai Saint-Bernard, 75230 PARIS Cedex 05, France
 a Parathyroid hormone and calcitonin: secretion, metabolism, and physiological role, especially in Ca, Mg, and P metabolism, before and after birth. *Rattus* spec. (Rodentia), *Ovis aries*, *Bos taurus* (Artiodactyla), *Equus caballus* (Perissodactyla)
- GARGOUIL, Y. M.; D.Sc., Prof. — Lab. de Physiol. Anim., Univ. de Poitiers, Bât.P, 40 av. du Recteur Pineau, 86022 POITIERS, France
 no work on developmental biology in progress
- GARROD, D. R.; Ph.D. — Dept. of Biol., Univ., SOUTHAMPTON SO9 5NH, England
 a Morphogenetic movement and cell adhesion. *Dictyostelium discoideum* (Acrasiales)
 b Tissue-specific sorting-out of embryonic cells. *Gallus domesticus* (Aves)
- GASC, J. M.; D.Sc. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
 a Cortico-steroid binding protein (CBG) in the embryo. *Gallus domesticus* (Aves)
 b Regression of mesonephros and differentiation of epididymis: an autoradiographic study of DNA synthesis. Same species as a
 c Localization of steroid hormone receptors in gonads and genital ducts of the embryo. Same species as a
- GASSER, F.; D.Sc. — Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
 a Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. *Pleurodeles waltli* (Urodela) (with J. C. BEETSCHEN and A. JAYLET)
- GATEFF (ZOLLIKOFER), Ms. E. A.; Ph.D. — Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
 a Normal and abnormal (neoplastic) development of the nervous system and the imaginal discs (tissue culture). *Drosophila melanogaster* (Diptera)
 b Analysis of genetically controlled neoplasms. Same species as a
 c Oogenesis and early embryogenesis. *Drosophila* spec. (Diptera)
- GATHMANN, H. A.; Dr.med. — Pathol. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 8-10, 8520 ERLANGEN, B.R.D. (Germany)
 a Embryology and teratology of the liver, especially of the bile ducts. *Homo sapiens* (Primates)
 b Embryology and teratology of the skeleton, especially of the chondro- and neurocranium. Same species as a
- GAUDECKER, Ms. B. von; Dr.rer.nat. — Anat. Inst. der Univ., Olshausenstr. 40-60, 23 KIEL, B.R.D. (Germany)
 a Ultrastructure and histochemistry of prepupal and pupal salivary glands. *Drosophila melanogaster* (Diptera)
 b Thymus ultrastructure in the embryo. *Homo sapiens* (Primates)
- GAZARYAN, K. G.; Dr.biol., Prof. — Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
 a Role of chromosomal proteins in regulation of transcription in erythroid cells. *Columba livia* (Aves)
- GEBHARDT, D. O. E.; Ph.D. — Dept. of Obstet. and Gynecol., Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands
 a Amniotic fluid analysis. *Homo sapiens* (Primates)
 b Analysis of urinary estrogens during pregnancy. Same species as a
- GEHRING, W. J.; Ph.D., Prof. — Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
 a Cell determination and differentiation in embryos and imaginal discs. *Drosophila* spec. (Diptera)
- GEILENKIRCHEN, W. L. M.; Ph.D. — Zool. Lab., State Univ. of Utrecht, Transitorium III, Univ. centrum "De Uithof", UTRECHT, Netherlands
 a Metabolism and respiration of egg and embryo. *Lymnaea stagnalis* (Gastropoda)
 b Influence of various kations on development. Same species as a
 c Mechanisms of cytodifferentiation in cleaving eggs. Same species as a
 d Germinal localization in eggs. *Dentalium* spec. (Scaphopoda), *Patella* spec. (Gastropoda)
- GENDEREN, H. H. van; Drs. — Bot. Lab., State Univ. of Utrecht, Lange Nieuwstr. 106, UTRECHT, Netherlands
 no work on developmental biology in progress
- GENEIX, A.; Ph.D., Sc.D. — Lab. d'Histol.-Embryol.-Cytogénét., Fac. de Méd., B.P. 38, 63001 CLERMONT-FERRAND Cedex, France
 a Chromosome ultrastructure. *Homo sapiens* (Primates)
- GÉNIS-GÁLVEZ, J. M.; Med.Dr., Ph.D., Prof. — Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med., Univ. of Sevilla, SEVILLA, Spain
- GENNSER, G.; M.D., Assoc. Prof. — Dept. of Obstet. & Gynecol., Kvinnokliniken, Allmänna sjukhuset, 214 01 MÅLÅB 8, Sweden
 a Enzymology of placenta and amniotic fluid. *Homo sapiens* (Primates)
 b Fetal breathing movements: influence of drugs and smoking; relation to postnatal breathing; regulating mechanisms (ultrasonic technique). Same species as a
 c Endocrinology of feto-placental unit: pituitary-adrenal axis; influence of synthetic steroids; relation to onset of parturition. Same species as a
- GEORGES, Ms. D.; Dr.spéc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53,

- Centre de Tri, 38041 GRENOBLE, France
- a Electron microscopy of cell junctions before and after metamorphosis. (Tunicata)
 - b Development of photoreceptor organ and neural complex in larvae and during metamorphosis (transmission and scanning electron microscopy). (Tunicata)
- GERACI, G.; Ph.D. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy
- a Physico-chemical and functional properties of the hemoglobins of the developing embryo and their localisation in the erythrocytes. *Gallus gallus* (Aves)
 - b Comparison of chromatin organisation in sperm cells and in embryonic nuclei. *Paracentrotus lividus*, *Sphaerechinus granularis* (Echinoidea)
- GERARD, H. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Expériences (homogreffes) sur l'hématopoïèse embryonnaire. *Gallus domesticus* (Aves) (avec F. KOHLER)
- GERISCH, G.; Dr.rer.nat. – Biozentrum der Univ. Basel, Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Differentiation of cell membranes. *Dictyostelium discoideum* (Acrasiales)
 - b Immunochemical studies on cell differentiation. Same species as a
 - c Generation and recognition of periodic cyclic-AMP signals. Same species as a
- GERLINGER, P.; Dr.Méd. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
- a Étude de la formation des constituants de l'oeuf. *Gallus domesticus* (Aves)
 - b Control of ovalbumin synthesis in the oviduct of the laying hen. Same species as a
- GERZELI, G.; Prof. – Ist. of Comp. Anat., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
- a Isoprenaline induced modifications of liver cells (ploidy, structure, metabolism) during postnatal development. *Rattus spec.* (Rodentia)
 - b Effect of lathyrogenic substances on larvae. *Xenopus laevis* (Anura), *Salamandra salamandra* (Urodela)
- GEUSKENS, M; D.Sc.Zool. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a The influence of cytoplasmic constituents on genetic transcription during embryonic development (electron microscopy, autoradiography). (Amphibia)
 - b Cell coat and microfilament organisation during cleavage (concanavalin A-peroxidase staining; treatment with wheat germ and soybean agglutinins; electron microscopy). *Xenopus laevis* (Anura), *Pleurodeles waltli* (Urodela)
- GEZELIUS, N. G. B.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Role of sulphate in transport of RNA during development. (Echinoidea)
- GHIARA, G.; Dr.nat.sci., Prof. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
- GHIRARDELLI, E.; Prof. – Inst. of Zool. and Comp. Anat., Univ. of Trieste, via A. Valerio 32, 34127 TRIESTE, Italy
- GIACOBINI, G.; M.D. – Dept. of Human Anat., Univ. of Torino, Corso M. D'Azeleglio 52, 10126 TORINO, Italy
- a Development of neuro-muscular correlations under normal and experimental conditions (blockade of various components of the acetylcholine-system). *Gallus domesticus* (Aves)
 - b Transport of choline acetylase in the motor neuron. Same species as a
- GIANGUZZA, M.; Dr. – Ist. di Biol. Gen., Univ. di Palermo, Via Divisi 83, 90133 PALERMO, Italy
- a Histochemistry and ultrastructure of oogenesis and embryology. (Ascidiae) (with V. MANCUSO and G. DOLCEMASCOLO)
- GIANNELLI, F. B.; M.D., Ph.D. – Paediat. Res. Unit, Guy's Hosp. Med. Sch., Guy's Tower, LONDON SE1 9RT, England
- a Somatic cell fusion, especially in metabolic disorders. *Homo sapiens* (Primates)
 - b DNA repair systems. Same species as a
- GIANNETTI, A.; M.D. – Dept. of Dermatol., Univ. of Pavia, Policlinico S. Matteo – P.le Golgi, 27100 PAVIA, Italy
- a Pathology of immune response during development. *Homo sapiens* (Primates)
- GIESE, K.; Dr.phil.II – Zool. Inst. der Univ., Lehrst. für spez. Zool., Hüfferstr. 1, 4400 MÜNSTER/Westf., B.R.D. (Germany)
- a Morphology and histology of intracapsular development. *Buccinum undatum* (Gastropoda)
 - b Ultrastructure of the larval kidney. Same species as a
- GIHR, Ms. M.; Dr.phil. – Brain Anat. Inst., Untere Zollgasse 71, (Waldau), 3072 OSTERMUNDIGEN-BE, Switzerland
- a Anatomical and statistical study of early development. *Esox lucius* (Teleostei)
 - b Descriptive and comparative ontogenesis of the brain. (Cetacea)
 - c General ontogenesis. *Platanista gangetica*, *Pontoporia blainvilliei* (Platanistoidea, Cetacea)
- GILBERT, A. B.; Ph.D. – Poultry Res. Ctr., Agric. Res. Coun., King's Bldgs., West Mains Rd., EDINBURGH EH9 3JS, Scotland, U.K.
- a Yolk transport mechanism in ovarian follicle. *Gallus domesticus* (Aves)
- GINSBURG, Ms. A. S.; Dr.biol. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Sperm ultrastructure and acrosome reaction. *Acipenser stellatus*, *A. güldenstädtii* (Chondrostei)
 - b Development of the capacity for the cortical reaction during egg maturation. Same species as a, and *Misgurnus fossilis* (Teleostei)
- GINSBURGER-VOGEL, T.; Agr. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France
- GINTER, E. K.; Dr. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.

- GIOLITTI, G.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
 a Effect of chloro-organic solvents on embryos. *Xenopus laevis* (Anura)
- GIORGI, F.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy
 a Yolk formation and the Golgi apparatus in oogenesis. *Drosophila melanogaster* (Diptera)
- b Vitellogenesis. Same species as a and various spp. (Urodea)
- c Immunohistochemical characterization of yolk precursors in blood and their role in the formation of yolk spheres in oocytes. *Triturus cristatus* (Urodea)
- d Attempt to isolate alpha-2 spheres from laid eggs and their biochemical characterization and comparison with yolk platelets formed during vitellogenesis. Same species as a
- GIPOULOUX, J. D.; Dr., Prof. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
 a Étude expérimentale de la morphogenèse de l'appareil génital. (Anura)
- b Évolution des cellules germinales. (Anura)
- c Étude de l'ultrastructure embryonnaire. (Anura)
- d Étude expérimentale des facteurs de la migration des cellules du blastème de l'uretère primaire. *Rana spec.*, *Bufo bufo*, *Discoglossus spec.*, *Xenopus spec.* (Anura)
- GIRARD (DECHAMBE), Ms. C.; Dr.biol.anim. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
 a Modalités et facteurs de formation de l'ostium et de l'oviducte. (Anura)
- b Modalités de la métamorphose de l'appareil excréteur. *Rana dalmatina*, *Bufo bufo* (Anura)
- c Modalité de formation des glandes épidermiques in vivo et in vitro durant la métamorphose. Alytes obstetricans (Anura)
- d Incompatibilités cellulaires et tissulaires chez les embryons. (Anura)
- GIROUD, Ms. F.; M.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE Cedex, France
 a Effect of thyroxine on cell proliferation in embryo and larva. *Pleurodeles waltli* (Urodea)
- GIUDICE, G.; M.D., Prof. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
 a Protein and RNA synthesis during early development. *Paracentrotus lividus* (Echinoidea)
- b "Capping" of RNA. Same species as a
- c Giant RNA in the cytoplasm of embryos. Same species as a
- GLAS, P.; Ph.D. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, GRONINGEN, Netherlands
 a Fusion of the septal walls of the fissure longitudinalis cerebri in the telencephalon and the contribution of commissure hippocampi and corpus callosum to this process. *Mus musculus* (Rodentia)
- GLÄTZER, K. H.; Dr.rer.nat. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, Gebäude 26.02, Ebene 2, 4000 DÜSSELDORF, B.R.D. (Germany)
 a Gene physiology, Y chromosome. *Drosophila* spp. (Diptera)
- b Genetic regulation of differentiation; male germ line cells. Same species as a
- GLENISTER, T. W.; D.Sc., Ph.D., Prof. – Dept. of Anat., Charing Cross Hosp. Med. School, Lab. Block, Fulham Palace Road, LONDON W6 8RF, England
 a Reaction of genital tract tissues to hormones in vitro. (Rodentia; Lagomorpha; Primates)
- b Blastocyst implantation in vitro. Same species as a
- c Behaviour of trophoblasts in vitro. Same species as a
- d Development of embryos in vitro. Same species as a
- e Ultrastructure of embryo-maternal relationships during implantation. Same species as a
- GLINZ, Ms. S.; Dipl.nat. – Zool.Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
 a Ultrastructure of imaginal disc cells. *Drosophila melanogaster* (Diptera)
- GODET (NONNENMACHER), Ms. J. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
 a Erythrocyte differentiation. *Gallus domesticus* (Aves)
- b Genetic factors in hemoglobin synthesis. *Homo sapiens* (Primates)
- GODULA, J.; M.Sc. – Zool. Dept., Jagellonian Univ., ul. Krupnicza 50, KRAKÓW 2, Poland
 a Differentiation of germ cells in early oogenesis (quantitative and stereological analysis). *Tetrapontophora bielanensis* (Collembola)
- GOLICHENKOV, V. A.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
 a Development of dermal melanophores, their structure, biochemistry, physiological regulatory mechanisms, and behaviour. *Rana temporaria*, *Xenopus laevis* (Anura)
- GOLINSKA, Ms. K.; Dr.nat.sci. – Dept. of Cell Biol., M. Nencki Inst. of Exper. Biol., Polish Acad. of Sci., Pasteur St. 3, 02-093 WARSZAWA, Poland
 a Course of shape regulation ("French-Flag" type): microsurgery, morphometry, electron and light microscopy, and the effect of high temperature and some inhibitors of protein synthesis (puromycin, cycloheximide) thereon. *Dileptus anser*, *D. cygnus* (Ciliata)
- GOMOT, L.; D.Sc., Prof. – Lab. de Zool. et Embryol., Univ. de Besançon, place Maréchal Leclerc, 25030 BESANÇON Cedex, France
 a Développement embryonnaire de la glande uropygienne. *Anas platyrhynchos* (Aves) (avec J. BRIDE)
- b Différenciation sexuelle des hybrides femelles. (Aves) (avec A. DERAY)
- c Organogenèse de la glande mammaire (culture in vitro). *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha) (avec A. BIÉTRY et C. COLARD)

- d Fonctionnement de l'appareil génital (culture d'organes). *Helix aspersa* (Gastropoda)
e Le développement in vivo et in vitro du cœur. *Rana temporaria*, *Xenopus laevis* (Anura) (avec M. BRIDE-VUILLET)
- f Histophysiologie des testicules et de l'hypophyse des hybrides intergénériques stériles comparée à celle des canards fertiles. *Cairina moschata*, *Anas platyrhynchos* (Aves) (avec C. R. MARCHAND)
- g Déterminisme de la sexualité. Viviparus viviparus (Gastropoda) (avec B. GRIFFOND)
- GONCHAROV, B. F.; Cand.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Changes of physiological state of follicles during oogenesis and mechanism of hormonal induction of oocyte maturation. *Acipenser stellatus*, *A. güldenstädti* (Chondrostei), *Rana temporaria*, *Bufo bufo* (Anura)
- GOSHCHETELIANI, I. S.; Cand.biol.sci. – Lab. of Exp. Zool., State Univ. of Tbilisi, KUTAISI, Georgian S.S.R., U.S.S.R.
- GOSWAMI, M. N. D.; Ph.D. – Lab. de Physio-Pathol. Cell., Inst. Gustave-Roussy, 16bis Av. P. Vaillant-Couturier, 94 VILLEJUIF, France
- a Developmental regulation of genetic expression: mechanism of protein synthesis and its control in the liver. *Rattus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- b Genetic transcription and translation of the transcribed messages as affected by hormones. *Rattus spec.* (Rodentia)
- GÖTTING, K. J.; Dr.rer.nat., Prof. – I.Zool. Inst., Fachber. Biol., Univ. Giessen, Stephanstr. 24, 63 GIESSEN, B.R.D. (Germany)
- a Electron microscopy of oogenesis in marine forms. (Teleostei)
- b Viviparity. Zoarcetes viviparus (Teleostei)
- GOTZOS-CAPPELLI, Ms. B.; Dr.biol. – Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 1700 FRIBOURG, Switzerland
- a Cytoplasmic DNA synthesis in fibroblasts cultivated in vitro. *Gallus domesticus* (Aves)
- GOTZOS, V.; Dr.Vet. – Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 1700 FRIBOURG, Switzerland
- a 1. Culture of embryonic fibroblasts; 2. culture of macrophages; 3. cell proliferation in vitro; 4. cytoplasmic DNA and its role in the cell cycle. *Gallus domesticus* (Aves), *Homo sapiens* (Primates)
- GOUNON, P.; Dr.3è cycle – Lab. d'Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY-sur-SEINE, France
- a L'expression des gènes léthaux: "léthal-mitotique" et "ulcère" (microchirurgie, cytologie ultra-structurale, analyse biochimique des protéines microtubulaires). *Pleurodeles waltli* (Urodela)
- GOVAERE, Ms. M. C.; Dr.3e Cycle – Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- GRAHAM, C. F.; D.Phil. – Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
- a Experimental parthenogenesis. *Mus musculus* (Rodentia)
- b Development of teratomas in vitro. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- c Differentiation of teratoma cells in vitro. Same species as b
- GRAZIOSI, G.; D.Sc. – Inst. of Zool. and Comp. Anat., Univ. of Trieste, via A. Valerio 32, 34127 TRIESTE, Italy
- a Biochemistry of germ cell determination and body pattern formation in early embryos. *Drosophila melanogaster* (Diptera)
- b Antigens and protein analysis of embryological mutants. Same species as a
- GRIBNAU, Ms. A. A. M.; Dr. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, NIJMEGEN, Netherlands.
- a Development of the prosencephalon. *Macaca mulatta* (Primates)
- GRIFFOND (ROGNON), Ms. B.; Lic.ès.Sci. – Lab.de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France
- a Déterminisme de la sexualité. Viviparus viviparus (Gastropoda) (avec L. GOMOT)
- GRIGNON, G.; Prof. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Maturation du complexe hypothalamo-hypophysaire. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia)
- b Différenciation du tube séminifère. *Rattus norvegicus* (Rodentia)
- GRIM, M.; MUDr. – Dept. of Anat., Charles Univ., U nemonice 3, 12800 PRAHA 2, Czechoslovakia
- a Prenatal development of muscles. *Ambystoma mexicanum* (Amphibia), *Gallus domesticus* (Aves), *Homo sapiens* (Primates)
- GRIPPO, P. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy
- a Enzymes of DNA metabolism during oogenesis. *Xenopus laevis* (Anura)
- GRODZINSKI, Z.; D.Sc., Prof. (Emer.) – Dept. of Comp. Anat., Jagellonian Univ., ul. Krupnicza 50, 30-060 KRAKÓW, Poland
- a Ultrastructure and some physico-chemical properties of yolk platelets. *Sphenodon punctatus* (Rhynchocephalia, Reptilia)
- GROENENDIJK (HUIJBERS), Ms. M. M.; M.D., D.Sc. – Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands
- a Müllerian duct inhibiting capability of young testes, after administration of cyproterone-acetate or estradiolbenzoate, as studied by implantation in 4-day old female embryos. *Gallus domesticus* (Aves)
- b Hormonal dependency of down feather pigmentation (castration, pituitary implantation,

- modification of thyroid hormone levels, administration of drugs (alpha-MSH etc.)). Same species as a
- GROSCHUTH, P.; M.D.** — Div. of Cell Biol., Dept. of Anat., Univ. of Zürich, Gloriastr. 19, 8006 ZÜRICH, Switzerland
- a Pre- and postnatal development of the thymo-lymphatic system and the endocrine organs (light- and electron microscopy). *Mus musculus* (esp. mutant "nude"). (Rodentia), *Homo sapiens* (Primates)
 - b Viral induced embryo- and fetopathy (morphology, virology and immunology). *Mus musculus* and others (Rodentia), *Homo sapiens* (Primates)
- GRÜN, G.; Dr.** — Lehrst. für Spez. Zool., Ruhr-Univ., Universitätsstr. 150, 4630 BOCHUM, B.R.D. (Germany)
- a Ultrastructure and histochemistry of the differentiating retina. *Tilapia* spec. (Teleostei)
 - b Role of light in synaptic and axon terminal development in the retina. Same species as a
- GRUNZ, H.; Dr.rer.nat.** — Inst. für Molec. Biol. und Biochem., Fachber. I (Vorklinik), Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
- a Changes of cell affinity and cell membranes after early embryonic induction. *Triturus alpestris*, *Ambystoma mexicanum* (Urodela)
 - b Mode of action of morphogenetic factors. *Xenopus laevis* (Anura), *Triturus alpestris* (Urodela)
- GRYGOŃ-GOSTKIEWICZ, Ms. B.; Dr.biol.** — Dept. of Zool., Inst. of Biol., Univ. of N.Copernicus, Gagarina 9, 87–100 TORUŃ, Poland
- a Experimental developmental morphology of gonads in organ and cell culture. *Cepaea* spp. (Gastropoda)
- GUARDABASSI, Ms. A.; Dr.nat.sci., Prof.** — Inst. of Histol. and Embryol., Univ. of Torino, via Giolitti 34, 10123 TORINO, Italy
- a Stabilising action of prolactin on lysosomal membranes; acid phosphatase activity in tail tips at metamorphosis. *Xenopus laevis* (Anura)
- GUASTALLA, Ms. A.; Dr.** — Inst. of Histol. and Embryol., Univ. of Torino, via Giolitti 34, 10123 TORINO, Italy
- a Hypothalamic control of thyroid activity before metamorphosis (131I, chromatography, partial brain extirpation). *Bufo bufo* (Anura)
- GUEDENET, J. C.; Ing.** — Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Développement du complexe hypothalamo-hypophysaire. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia)
 - b Cytologie du spermatozoïde. *Homo sapiens* (Primates)
- GUERRE-MILLO, Ms. M.** — Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Placental transfer *in vitro* of anxiolytics and water soluble substances of different molecular weight. *Homo sapiens* (Primates)
- GUERRIER, P. C.; D.Sc.** — Stat. Biologique, place Georges-Tessier, 29211 ROSCOFF, France
- a Epigenesis of axial patterns during early development: intracellular activation and intercellular relations (microsurgery, isotope labeling). *Dentalium* spec. (Scaphopoda), *Patella* spec. (Gastropoda), *Sabellaria* spec. (Polychaeta)
 - b Morphogenetic significance of changes in membrane properties during meiosis and early development. *Asterias* spec., *Sphaerechinus* spec. (Echinodermata), *Sabellaria* spec. (Polychaeta), *Xenopus laevis* (Anura)
 - c Hormonal control of meiosis reinitiation, cellular and biochemical aspects. *Xenopus laevis* (Anura), *Marthasterias glacialis* (Asteroidea)
 - d Control of early embryogenesis. *Sphaerechinus granularis* (Echinoidea), *Dentalium entale*, *Patella vulgata* (Mollusca)
- GUIRET, Ms. A. BARA** — Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât. A, 7ème étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Consommation et diffusion d'oxygène et action d'inhibiteurs enzymatiques de respiration dans les lobules placentaires *in vitro*. *Homo sapiens* (Primates)
- GUIGNARD, J.-L.; Prof.** — Lab. de Bot., Fac. de Pharm. de Paris-Sud, rue J. B. Clément, 92290 CHÂTEENAY-MALABRY, France
- a Differentiation of embryoids. *Lychnis dioica* (Caryophyllaceae), *Cheiranthus cherii* (Cruciferae)
- GUILLEMIN, Ms. C.; Dr.3e cycle** — Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- GUILLEMONAT, Ms. N.; Dr.spéc.** — Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Root morphogenesis (experiments with "minirhizotrons"): 1. regeneration, variations; 2. geotropism control. *Quercus ilex* (Fagaceae)
- GUILLERMET, Ms. C.; M.Sc.** — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE Cedex, France
- a Evagination and cell differentiation of imaginal discs *in vitro*. *Drosophila melanogaster* (Diptera)
- GUILLET, C.; Dr.spéc.** — Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- GUILLET (BERNARD), Ms. F.; Dr.3e Cycle** — Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Multiple forms of isoenzyme systems during ontogenesis. *Pleurodeles waltl*, *P. poireti* (Urodela)
- GUIRAN-PEREZ, M.; Med. Dr., Prof.** — Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain

- a Brain damage in perinatal hypoxia and behavioural consequences. *Gallus gallus* (Aves), *Homo sapiens* (Primates)
- b Germinal structures of developing brain. Same species as a
GULAMHUSEIN, A.P.; Ph.D. – Dept. of Anat., Univ. of Leicester, University Rd., LEICESTER LE1 7RH, England
- a Reproduction, especially delayed implantation: 1. light and electron microscopy of the blastocyst and uterine epithelium; 2. histochemistry of the reproductive tract. *Mustela erminea* (Carnivora)
- b Reciprocal insemination and embryo transfer between *Putorius p. furo* and *Mustela erminea* (Carnivora)
- c External and internal development of the embryo. *Putorius p. furo* (Carnivora)
- d Placental transfer mechanisms. Same species as c
GULLINI CUOMO, Ms. M.; Dr. – Ist. di Biol. Gen., Fac. di Med., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
- a Effects of gravity acceleration during growth of primary root. *Vicia faba* (Papilionaceae)
- b Effects of 1-asparaginase, strychnin, and veratrum during embryonic development. *Rana esculenta*, *Bufo vulgaris* (Anura)
- c Effect of food dyes on embryos. *Xenopus laevis* (Anura)
GUMPEL (PINOT), Ms. M.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49 bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Rapports mésenchyme axial – mésenchyme latéral dans l'organogenèse du membre. *Gallus gallus* (Aves)
- b Organogenèse du rein. *Gallus gallus*, *Coturnix c. japonica* (Aves) (avec Y. CROISILLE)
- c Relations ecto-mésodermiques dans la différenciation du cartilage de membre. Même espèce comme a
- d Involution du mésonephros et différenciation de l'épididyme (immunohistologie). Même espèce comme a (avec Y. CROISILLE et J. M. GASC)
GURDON, J. B.; D.Phil. – Lab. of Molec. Biol., Med. Res. Counc., Hills Rd., CAMBRIDGE CB2 2QH, England
- a Gene expression in early development. (Amphibia)
GUREVA-PREOBRAZHENSKAYA, Ms. E. V. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
- a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
GUSTAFSON, T.; Fil.Dr., Prof. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Control of morphogenetic movements and of larval muscular and ciliar activity by acetylcholine and serotonin; graded variation of sensor, pacemaker, conductive and contractile activities along the animal-vegetal axis and its relation to behaviour. *Psammechinus miliaris* (Echinoidea)
GUYOT-LENFANT, Ms. M.; Dr.3e Cycle – Lab. de Biol. du Dévl., Univ. Paris V (René Descartes), 45 rue des Sts. Pères, 75270 PARIS Cedex 06, France
- a Ultrastructure of egg and embryo. (Amphibia)
GYÉVAI (TÓTH), Ms. A. T.; Morphol. Dept., Inst. of Exper. Med., Hung. Acad. of Sci., Szigony u. 43, P.O.B. 67, BUDAPEST 1083, Hungary
- a Fine structure and hormonal activity of intact and cultured embryonic adrenal cells of different species. *Felis domestica* (Carnivora), *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
- b Fine structure and hormonal activity of cultured embryonic hypophysis. *Homo sapiens* (Primates)
- c Ultrastructure and hormonal activity of cultured embryonic hypothalamus. *Rattus spec.* (Rodentia)
HAARLEM, R. van – Dept. of Zool., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Cell migration and pattern formation during early development. *Nothobranchius spp.* (Teleostei)
HABROVÁ (VILÍMKOVÁ), Ms. V.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Nucleic acids and subcellular particles in oogenesis and early development. (Amphibia) (with J. NEDVÍDEK)
HACCIUS, Ms. B.; Dr., Prof. – Inst. für spez. Bot. und Bot. Garten, Univ., 65 MAINZ, B.R.D. (Germany)
- a Adventitious buds or somatogenic embryos from in vitro cultivated tissues. *Paeonia spp.* (Ranunculaceae)
- b Adventitious embryos from cultivated ovules. (Angiospermae)
- c Phenocopying effects of phenylboric acid. (Angiospermae)
HACH, P.; M.D. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
- a Peri- and postnatal differentiation of rough endoplasmic reticulum in acinar pancreatic cells (ratio free: bounded ribosomes). *Rattus rattus* (Rodentia)
- b Differentiation and development of pigment granules and melanocytes in normal tissue and in tumours of different origin (incl. biochemistry). *Rana esculenta* (Anura), *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- c Migration and differentiation of neural crest cells after heterotopic and heterochronic transplantation. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
HAFFEN (STENGER), Ms. K. E.; D.Sc. – Unité de Rech. No. 61, INSERM, Av. Molière, 67200 STRASBOURG/Hautepierre, France
- a Enzymic differentiation during intestinal development. (Rodentia)
HAGELIN, L.-O.; Dr. – Dept. of Zool., Univ. of Stockholm, Box 6801, 113 86 STOCKHOLM, Sweden

- a Embryology of the membranous labyrinth. *Lampetra fluviatilis*, *L. planeri*, *Petromyzon marinus* (*Cyclostomata*)
 HAGENMAIER, H. E.; Dr.rer.nat. – Inst. für Zool., Rhein-Westf.-Techn. Hochschule, Kopernikusstr. 16, 51 AACHEN, B.R.D. (Germany)
- a Biochemistry of hatching. *Salmo trutta*, *S. gairdneri* (Teleostei)
 b Structure and chemistry of the chorion. *Salmo gairdneri*, *Perca fluviatilis* (Teleostei)
 HAGET, A.; D.Sc., Prof. – Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Development of surface membrane during cleavage. *Leptinotarsa* spec. (Coleoptera)
 HAGSTRÖM, B. E.; Fil.Dr. – Dept. of Pharmacol. and Toxicol., AB KABI, 104 25 STOCKHOLM 30, Sweden
- HAHNENKAMP, L. – Inst. Allg. Zool. und Exp. Morphol., Freie Univ., Kön.-Luise Str. 1–3, 1 BERLIN 33, B.R.D. (Germany)
- a Formation and differentiation of the post-naupliar germ band. *Ligia oceanica* (Isopoda, Crustacea)
 HAKIM, Ms. J.; Dr.biol. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
- a Les potentialités morphogènes du mésoderme latéral. *Xenopus* spec. (Anura), *Pleurodeles waltli* (Urodela)
 HALFER, Ms. C. – Ist. di Genet., Univ. di Milano, via Celoria 10, 20133 MILANO, Italy
- a DNA replication in cells cultured in vitro. *Drosophila melanogaster* (Diptera)
 b Biology of established cell lines. Same species as a
 c Fusion of cells from caryotypically different established cell lines. Same species as a
 HAMBURGER, K.; Cand.mag. – Biol. Inst., Carlsberg Found., 16 Tagensvej, 2200 COPENHAGEN N, Denmark
- HAMES, B. D.; Ph.D. – Biol. Dept., Univ. of Essex, Wivenhoe Park, COLCHESTER, Essex CO4 3SQ, England
- a Mechanisms of translational control during development. *Dictyostelium discoideum* (Acrasiales)
 HAMILTON, Ms. L.; Ph.D. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. School, Cleveland St., LONDON W1P 6DB, England
- a Haploid syndrome. *Xenopus* spp. (Anura)
 b Radiation sensitivity of haploid and diploid embryos. *Xenopus laevis* (Anura)
 c Haploid and diploid tissues (electron microscopy). Same species as b
 HAMILTON, W. J.; † Prof. – NORTHWOOD, Middlesex, England
- HÄMMERLING, J.; Dr.phil., Prof. (Emer.) – Schopenhauerstr. 27, 2940 WILHELMSHAVEN, B.R.D. (Germany)
- HAMMOND, J. B. W.; D.Phil. – Glasshouse Crops Res. Inst., Worthing Rd., LITTLEHAMPTON BN16 3PU, England
- a The relationship of changes in levels of enzymes of carbohydrate metabolism and metabolic pathways to changes in carbohydrate levels and growth rate during the development of the sporophore. *Agaricus bisporus* (Basidiomycetes, Fungi)
 b Physiological role of soluble carbohydrates in the developing sporophore. Same species as a
 HANKE, W.; Dr., Prof. – Zool. Inst. II der Univ., Kaiserstr. 12, 75 KARLSRUHE 1, B.R.D. (Germany)
- a Influence of hormones on skin. *Rana temporaria* (Anura), *Mus musculus* (Rodentia)
 b Effects of adrenocortical hormones. *Anguilla anguilla* (Teleostei), *Ambystoma* spec. (Urodela), *Rana temporaria*, *Xenopus laevis* (Anura)
 c Development of endocrine tissue. *Ambystoma* spec. (Urodela), *Xenopus laevis* (Anura)
 d Influence of hormones on metamorphosis; effects of different hormones depending on the stage of development. Same species as c
 HANOCQ, Ms. F. A.; Lic.Sc.Zool. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Regulation of rDNA transcription in oocytes and eggs. *Xenopus laevis* (Anura)
 HANOCQ (QUERTIER), Ms. J. A.; D.Sc.Biol. – Dept. of Molec. Biol., Free University of Brussels, 67 rue des Chevaux, 1640 RHODE-ST.-GENÈSE, Belgium
- a Mechanisms of in vitro maturation. *Xenopus laevis* (Anura)
 HANSEN-DELKESKAMP, Ms. E.; Dr. – Fachber. Biol., Univ. Regensburg, Postfach 397, 84 REGENSBURG 2, B.R.D. (Germany)
- a Early differentiation: 1. enzyme regulation and metabolic pathways; 2. DNA-binding proteins. *Acheta domesticus* (Orthoptera)
 HARA, K.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
- a Origin of dorso-ventral polarity of the egg (microcinematography). *Discoglossus pictus*, *Xenopus laevis* (Anura) (with P. D. NIEUWKOOP and G. A. UBBELS)
 b Analysis of dorso-ventral and crano-caudal polarity in mesoderm induction (blastomere recombination, microcinematography). *Ambystoma mexicanum* (Urodela) (with P. D. NIEUWKOOP and E. C. BOTERENBROOD)
- HARDIE, J.; Ph.D. – Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks. SLS 7DE, England
- a Nervous and hormonal factors regulating polymorphism; electron microscopy of neuroendocrine system. *Megoura viciae* (Homoptera)
 HARREBOMÉE, Ms. A. E.; M.D. – Div. of Exper. Morphol., Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Differentiation and de-differentiation during regeneration. (Urodela)

- b Development of neural crest derivatives. *Gallus domesticus* (Aves)
HARRIS, J. W. S.; Ph.D., Prof. — Dept. of Anat., Royal Free Hosp. Sch. of Med., 8 Hunter St., LONDON WC1N 1BP, England
- a Morphogenesis of nose and palate. *Mus musculus*, *Rattus spec.*, *Mesocricetus auratus* (Rodentia), *Homo sapiens* (Primates)
- b Effect of trophoblast on uteroplacental blood vessels. *Mesocricetus auratus* (Rodentia), *Homo sapiens* (Primates)
- HARRISON, P. R.; Ph.D.** — Beatson Inst. for Canc. Res., Royal Beatson Mem. Hosp., 132 Hill St., GLASGOW G3 6UD, Scotland, U.K.
- HARRISON, R. G.; D.M., Prof.** — Dept. of Anat., Univ. of Liverpool, P.O. Box 147, LIVERPOOL L69 3BX, England
- a Factors influencing the process of spermatogenesis. *Rattus norvegicus*, *Gerbillinae* (Rodentia), *Homo sapiens* (Primates)
- HARRISON, R. J.; M.D., D.Sc., F.R.S., Prof.** — Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Reproduction, gonads, placenta, endocrine organs. *Phoca spec.*, (Pinnipedia), *Tursiops spec.*, *Delphinus spec.* (Cetacea)
- HARRISSON, F.** — Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
- a Biogenic amines in the hypothalamo-hypophyseal system, especially ontogenesis. (Aves; Mammalia)
- b Role of neural crest cells in embryogenesis, possible neural crest origin of APUD-cells. (Aves; Mammalia)
- HARRY, Ms. E.** — Lab. de Biol. Cell., Fac. de Pharm., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTEENAY-MALABRY, France
- a Cellular differentiation in callus cultures; embryoid differentiation. (Angiospermae)
- HARTE, Ms. C.; Dr., Prof.** — Inst. für Entw. physiol., Univ. Köln, Gyrhofstr. 17, 5 KÖLN 41, B.R.D. (Germany)
- a Interactions between genes and environment in controlling morphogenesis of leaves. *Antirrhinum majus* (Scrophulariaceae)
- b Growth of callus and differentiation in tissue cultures of different mutants. *Oenothera hookeri* (Onagraceae), *Antirrhinum majus* (Scrophulariaceae)
- c Models for mitosis in cell populations. (with A. LINDEMAYER, Univ. of Utrecht)
- HARTMANN, R.; Dr.rer.nat.** — Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Light and electron microscopy of spermatheca development in connection with endocrine ablations, *Gomphocerus rufus*, *Schistocerca gregaria* (Acridinae, Orthoptera)
- HARTWIG, H.; Dr.phil., Prof.** — Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
- a Wirkungsmechanismus von Schilddrüsenhormonen. *Salamandra spec.*, *Triturus spec.*, *Ambystoma spec.* (Urodea)
- b Epithelycysten. Same species as a
- c Gewebebildung. *Capreolus capreolus* (Artiodactyla)
- HAŠEK, M.; M.D.** — Dept. of Exp. Biol. and Genet., Inst. of Biol., Czech. Acad. of Sci., Flemmingovo nám. 2, PRAHA 6, Czechoslovakia
- HATIER (AUTELIN), Ms. R.; D.Sc.** — Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Différenciation des tubes séminifères. *Rattus norvegicus* (Rodentia)
- HAUENSCHILD, C.; Dr.rer.nat., Prof.** — Zool. Inst. der Tech. Univ., Pockelstr. 10a, 3300 BRAUNSCHWEIG, B.R.D. (Germany)
- a Reproduction, sex differentiation, endocrinology, and periodicity. *Platynereis spec.*, *Syllis spec.* and other spp. (Polychaeta)
- b Endocrinology of stolonisation and sex differentiation. *Syllis prolifera* (Polychaeta)
- HAUSER, R. F.; Ph.D., Prof.** — Div. of Cell and Developm. Biol., Zool. Inst., Univ. of Bern, Sahlist. 8, 3012 BERN, Switzerland
- a The role of the subcommissural organ in normal development and regeneration of axial structures. *Xenopus laevis* (Anura), various spp. (Vertebrata)
- HAY, Ms. M. F.; Dr.** — A.R.C. Unit of Reprod. Physiol. and Biochem., Anim. Res. Stat., 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- HEATH, J. P.; M.Sc.** — Strangeways Res. Lab., Worts Causeway, CAMBRIDGE CB1 4RN, England
- a Cell relations in tissue culture. *Gallus gallus* (Aves), *Mus musculus* (Rodentia) with M. ABERCROMBIE and G. A. DUNN)
- HEAYSMAN, Ms. J. E. M. WAKELING; Ph.D.** — Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Cellular interaction in tissue culture
- HEDLUND, K. O.; Fil.kand.** — Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Ultrastructure of differentiating embryonic ganglia. *Gallus domesticus* (Aves)
- HEESEN, D. te; Dr.** — Emschergenossenschaft, Kronprinzenstr. 24, 41 ESSEN, B.R.D. (Germany)
- a Development of freshwater species as a test for pollution. (Teleostei)
- b Female specificity of the yolk proteins and oestrogen induced vitellogenin synthesis in males. *Brachydanio rerio* (Teleostei)
- c Immunology of exo- and endogenous yolk proteins. Same species as b and other spp. (Teleostei)
- HEIMLER, — I.** Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)
- a Comparative embryology of coelom. *Lanice conchilega* (Polychaeta)

- b Biology of trochophora and allied larvae, especially histology of sense organs (apical plate etc.).
 (Annelida and other Coelomata)
- HEINE, H.; Dr.rer.nat.habil., Prof. – Anat. Inst. der Univ., Koellikerstr. 6, 87 WÜRZBURG, B.R.D.
 (Germany)
- a Proteoglycans of the intercellular matrix in embryonic tissues, especially heart and vessels.
 (Mammalia)
- HEIZMANN, C. W.; Ph.D. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093
 ZÜRICH, Switzerland
- a Myofibrillar organellogenesis. *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
- HEIZMANN, P.; Dr.Ing. – Sect. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre
 1918, 69621 VILLEURBANNE, France
- a Structure and mutation of chloroplast DNA. *Euglena gracilis* (Euglenophyceae)
- b Globin gene structure. *Homo sapiens* (Primates)
- HELPENBEIN, L. L.; B.Sc. – Dept. of Biol., Kharkov State Univ., Dzerjinsky Square 4, KHARKOV,
 U.S.S.R.
- HEMMINGS, W. A.; D.Sc. – Zool. Dept., Univ. Coll. of N. Wales, BANGOR, Caerns., Wales, U.K.
- a Protein transport to the foetus. *Oryctolagus cuniculus* (Lagomorpha)
- b Protein transport across the gut of suckling and mature animals. *Rattus norvegicus* (Rodentia)
- c Transport of proteins and their degradation products of high molecular weight across the blood/
 brain, blood/milk and placental barrier. Same species as b
- HENDELBERG, J.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Spermatogenesis. (Platyhelminthes)
- HÉNOU, Ms. C.; Dr.3e cycle - Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE,
 France
- a Action du herbicide paraquat sur l'embryon. (Aves)
- HERBERT, C. F.; Ph.D. – Dept. of Biol. Sci., Portsmouth Polytechnic, Park Rd., PORTSMOUTH
 PO1 2DY, England
- a Gonadal cycle. *Lacerta vivipara* (Lacertilia)
- HERMAN, Č.; D.Sc., Prof. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O. Box 166,
 41001 ZAGREB, Yugoslavia
- a Genetic and environmental factors in development and foeto-placental complex. *Rattus norvegicus* (Rodentia) (with M. MÜLLER)
- b Experimental teratology. Same species as a (with M. MÜLLER)
- HERP, F. van; Ph.D. – Dept. of Zool., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Sensitivity of larval and juvenile stages to neurohumoral substances. (Decapoda, Crustacea)
- b Development of the neurosecretory system. (Decapoda, Crustacea)
- HERRMANN, K. – I.Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN,
 B.R.D. (Germany)
- a Experimental analysis of metamorphosis. *Actinotrocha* spec. (Phoronidea), (Echinodermata)
- HESS, O.; Dr.rer.nat., Prof. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, Gebäude
 26.02, Ebene 2, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Experimental embryology. *Bithynia tentaculata* and other spp. (Gastropoda)
- b Gene physiology, Y chromosome. *Drosophila* spp. (Diptera)
- c Genetic regulation of differentiation; male germ line cells. Same species as b
- HESZKY, L. E.; Dr. – Tissue Cult. Lab., Dept. of Physiol., Natl. Inst. for Agric. Variety Testing,
 2766 TÁPIÓSZELE, Hungary
- a Morphogenesis in callus and anther cultures; tissue and embryo differentiation from somatic cells:
Papilionaceae, *Datura* spec., *Daucus* spec., *Oryza* spec., and haploid cells: *Oryza* spec., *Zea mays*,
Hordeum spec., *Triticum* spec. (Angiospermae)
- b Physiology of cell and tissue differentiation and somatic embryogenesis in callus cultures.
Nicotiana tabacum, *Daucus carota* (Angiospermae)
- c Cytogenetics of cultured somatic and haploid cells. Cultivated species (Angiospermae)
- d Freeze preservation of cultured cells. *Daucus* spec., *Nicotiana* spec., *Phaseolus* spec., *Trifolium*
 spec. (Angiospermae)
- HEWING, Ms. M.; Dr.med. – Anat. Inst., Abt. für Exper. Biol., Univ. Bonn, Nussallee 10,
 5300 BONN, B.R.D. (Germany)
- a Light and electron microscopy of the postnatal development of the pineal organ. *Mesocricetus auratus* (Rodentia)
- HEWITT, W.; M.B., B.S. – Dept. of Anat., St. Thomas's Hosp. Med. School, LONDON SE1 7EH,
 England
- a Development of the brain. *Homo sapiens* and other spp. (Mammalia)
- HINCHLIFFE, J. R.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23
 3DA, Wales, U.K.
- a Contribution of cell death to genesis of form in the limb: suppression and extension of necrosis
 in talpid3 and wingless mutants. *Gallus domesticus* (Aves)
- b Autoradiography ($^{35}\text{SO}_4$ uptake) of emergence of chondrogenic pattern in the limb, and its
 significance for the evolution of lungfish paddle into amphibian limb. *Ambystoma mexicanum*
 (Urodela), *Gallus domesticus* (Aves)
- c Ultrastructure of blastocyst implantation. *Mus musculus* (Rodentia)
- HINRICHSEN, K.; Dr.med., Prof. – Lehrst. für Anat.I, Ruhr-Univ., Universitätsstr. 150, Postfach
 102148, 4630 BOCHUM, B.R.D. (Germany)
- a Myogenesis. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia)
- b Scanning electron microscopy of embryos. *Homo sapiens* (Primates)

- HIRN, M.; Dr.spéc. – Ctr. d'Immunol. INSERM-CNRS de Marseille Luminy, 70 Rte L.Lachamp, 13288 MARSEILLE Cedex 2, France
- HOARAU, F.; Dr.spéc. – Lab. de Morphogénét. Anim., Univ. de Provence – Centre St. Charles, Place Victor Hugo, 13331 MARSEILLE-Cedex 3, France
- HOARE (STERN), Ms. M. S.; Ph.D. – Zool. Dept., Univ. Coll. of N. Wales, BANGOR, Caerns., Wales, U.K.
- a Experimental studies in early mammalian embryos. *Mus musculus*, *Rattus* spec. (Rodentia)
- HODDE, K. C.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands.
- a Adaptability of the nervous system of adult organisms, compared with normal development. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- HOFMAN, Ms. Lj.; D.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O. Box 166, 41001 ZAGREB, Yugoslavia
- a Early differentiation; transplantation, in vitro culture. *Rattus norvegicus* (Rodentia) (with N. SKREB)
- HOFMANN, D. K.; Dr.rer.nat. – Inst. für Entw.physiol., Univ. zu Köln, Gyrhofstr. 17, 5 KÖLN 41, B.R.D. (Germany)
- a Experimental study on endocrine control of caudal regeneration. *Platyneris dumerilii* (Polychaeta)
 - b General and experimental study of reproduction, development, and endocrinology. *Eunice siciliensis* (Polychaeta)
 - c Asexual reproduction and development. *Cassiopeia andromeda* (Scyphozoa)
- HOHL, H. R.; Dr.sc.nat., Prof. – Cytol. Lab., Inst. of Plant Biol., Univ. of Zürich, Zollikerstr. 107, 8008 ZÜRICH, Switzerland
- a Submicroscopic morphogenesis. *Dictyostelium discoideum* and other spp. (Acrasiales), Phytophthora parasitica and other spp. (Phycomycetes)
- HØJAGER, Ms. B.; M.Sc. – Finsen Lab., Finsen Inst., 49 Strandboulevarden, 2100 COPENHAGEN Ø, Denmark
- a Cell dynamics on granulosa cells from ovarian follicles. *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- HOLDEN, Ms. J. J.; Ph.D. – Inst. of Genet., Oxford Univ., OXFORD, England
- HOLM, K. Å.; Ph.D., Prof. (Emer.) – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Experimental embryology. (Araneida)
- HOLT (SULEY), Ms. A. C. E.; Ph.D. – Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England
- a Developmental genetics, especially of variegated phenotypes. *Mesocricetus auratus* (Rodentia)
- HOORN, A. J. W.; Drs. – Dépt. of Popul. and Evol. Biol., Genet. Inst., State Univ., Transitorium III, Paduaalaan 8, UTRECHT, Netherlands
- HOPERSKAYA, Ms. O. A.; Cand.biol.sci. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Accumulation and isolation of inductive substances from lens epithelial cells. *Rana temporaria* (Anura), *Gallus domesticus* (Aves) *Homo sapiens* (Primates)
 - b Mechanisms causing periodic albinism in mutation (ap) (developmental and electron microscopical studies). *Xenopus laevis* (Anura)
 - c Studies on stability of cell differentiation with the application of clonal cell cultures. *Rana temporaria*, *Xenopus laevis* (Anura)
 - d Conditions of the initiation of development and the positioning of axial rudiment in the early blastoderm. *Leuciscus bergi* (Cyprinidae), *Epiplatys shaperi* (Cyprinodontidae, Teleostei)
- HORDER, T. J.; Ph.D. – Dept. of Hum. Anat., Univ., South Parks Rd., OXFORD OX1 3QX, England
- a Control of orderly nerve connections in embryonic development and in regeneration, especially in the optic nerve; assessment of the concept of neural specificity; the potentialities for regeneration of nerve fibres in the central nervous system. *Carassius auratus* (Teleostei), various spp. (Amphibia), *Rattus* spec., *Oryctolagus cuniculus* (Mammalia)
 - b Mechanisms of pattern formation in general; lens regeneration as a model for control of specific states of cellular differentiation
- HORNBY, Ms. J. E.; Ph.D. – Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England
- a Differentiation of coat patterns. *Mus musculus*, *Mesocricetus auratus* (Rodentia), *Dama dama* (Artiodactyla)
- HÖRSTADIASI, S.; Ph.D., Prof. (Emer.) – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Effects on larvae of factors isolated from sea urchin eggs and swine mucosa. (Echinoidea)
- HORTON, J. D.; Ph.D. – Dept. of Zool., Univ. of Durham, Science Labs., South Rd., DURHAM DH1 3LE, England
- a The role of the thymus in the ontogeny of immunity and the mechanism of graft rejection and tolerance (alloimmune responses of animals thymectomized at extremely early stages of lymphoid organ maturation). *Xenopus laevis* (Anura)
- HORVÁTH, Ms. C.; M.D., Assoc.Prof. – Lab. d'Embryol. et de Cytogénét., Fac. de Méd. Saint-Antoine, 27 rue Chaligny, 75571 PARIS Cedex 12, France
- a Teratogenesis. *Gallus domesticus* (Aves), *Rattus rattus*, *Mus musculus*, *Mesocricetus auratus* (Rodentia)
 - b Effect of teratogens on chromosomes. *Rattus rattus* (Rodentia)
 - c Teratogenic action of inhibitors of cholesterol synthesis. *Mus musculus*, *Rattus rattus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
 - d Teratogenesis by irradiation. Same species as b

- HOUILLON, C.; D.Sc., Prof. — Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
- HOUSSAINT, Ms. E. — Lab. d'Embryol., Univ. de Nantes, 38 Bd. Michelet, B.P. 1044, 44037 NANTES Cedex, France
- a Différenciation biochimique des hépatocytes. *Gallus gallus* (Aves)
 - b Étude expérimentale du développement du foie. *Gallus gallus* (Aves). *Mus musculus* (Rodentia)
 - c Cultures d'hépatocytes d'embryons. *Gallus gallus*, *Coturnix c. japonica* (Aves)
 - d Embryonic origin of lymphocytes in the bursa of Fabricius. Same species as c
- HOYES, A. D.; Ph.D. — Anat. Dept., St. Mary's Hosp. Med. School, Norfolk Place, LONDON W2 1PG, England
- a Ultrastructure of the chorion laeve and decidua. *Homo sapiens* (Primates)
 - b Ultrastructure of haematopoiesis in the liver and bone marrow. Same species as a
- HUBER, W.; D.Sc., Prof. — Naturhist. Museum, und Zool. Inst. der Univ., Abt. für Morphol. und Biol. der Wirbeltiere, Bernastr. 15, 3005 BERN, Switzerland
- a Biometrie des Schädels. *Canis familiaris* (Carnivora), *Rupicapra rupicapra* (Artiodactyla)
 - b Postembryonales Wachstum. *Canis familiaris* (Carnivora)
 - c Geschlechtszyklus. *Rupicapra rupicapra* (Artiodactyla)
 - d Fortpflanzung und Geschlechtszyklus. *Sciurus vulgaris* (Rodentia)
 - e Fortpflanzung und Reproduktionsleistung. *Lepus europaeus* (Lagomorpha), *Canis familiaris* (Carnivora)
- HUBERT, Ms. C.; — Lab. de Chim. Horm., Maternité de Port Royal, 123 Bd. de Port Royal, 75014 PARIS, France
- HUBERT, J.; D.Sc., — Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
- a Lignée germinale chez l'embryon, le jeune et l'adulte; étude descriptive et expérimentale, ultrastructure. *Lacerta vivipara*, *L. muralis*, *L. viridis*, *Anguis fragilis* (Lacertilia)
- HUBERT-VAN STEVENS, Ms. E. M. C. — Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Maturation of oocytes. *Xenopus laevis* (Anura)
- HUCHON, Ms. D. E.; D.Sc. — Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
- HUET, C. — Lab. de Biol. Anim. A, Fac. des Sci., Univ. Paris-Sud, Bât. 445, 91405 ORSAY, France
- IIUET, M. — Lab. de Biol. Anim. A, Univ. Paris-Sud, Bât. 445, 91405 ORSAY, France
- HULTIN, J. M. T.; Fil.Dr. — Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Protein and nucleic acid metabolism in early development. *Artemia salina* (Anostraca, Crustacea), (Echinoidea)
- HURLE GONZALEZ, J. M.; Dr.Med. — Serv. de Embriol. Exper., Dept. de Anat., Fac. de Med., SANTANDER, Spain
- a Cell death during normal and abnormal morphogenesis of the heart (stages 9–34 H.H.; optic and electron microscopy). *Gallus domesticus* (Aves)
 - b Development and role of cardiac jelly (microsurgery, optic and electron microscopy). Same species as a
- HURST, P. R.; Ph.D. — Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a Development of embryos in normal and IUD (intra-uterine device) treated animals. *Mus musculus* (Rodentia), *Homo sapiens* and other spp. (Primates)
- IANNELLO, Ms. A.; Dr.rer.nat. — Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
- a Sviluppo delle ossa interparietali e preinterparietali. *Homo sapiens* (Primates)
- IGNATJEVA, Ms. G. M.; Cand.biol.sci. — Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Relative duration of embryonic periods in connection with the morphogenetic function of nuclei and yolk. *Misgurnus fossilis*, *Esox lucius* and other spp. (Teleostei), *Ambystoma mexicanum* (Urodea)
- ILLIES, A.; Dr.biol. — Inst. d'Histochem Méd., Univ. Paris V (René Descartes), 45 rue des Sts. Pères, 75270 PARIS Cedex 06, France
- a Fluor in developing teeth. *Rattus spec.* (Rodentia)
- ILLIS, L. S.; M.D. — Wessex Neurol. Centre, Southampton Univ. Hosp., SOUTHAMPTON SO9 4XY, England
- a Changes in synapses and glia after partial denervation of the central nervous system, and the factors which influence the time course of its regeneration. *Rattus spec.* (Rodentia), *Felis domestica* (Carnivora)
 - b Changes following repetitive stimulation of the central nervous system. Same species as a
- IMAIZUMI, Ms. M. T.; M.D. — Inst. de Rech. en Biol. Mol. du C.N.R.S., Univ. Paris VII, 2 place Jussieu (Tour 43), 75221 PARIS Cedex 05, France
- a Gene transcription in oocytes. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- IMMERS, J.; Fil.Dr. — Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Biochemical factors in embryonic and larval development, particularly the role of mucopolysaccharides. *Paracentrotus lividus* (Echinoidea)
 - b Changes in interaction between proteins and nucleic acids in the course of early development. *Paracentrotus lividus*, *Psammechinus miliaris* (Echinoidea)
 - c Interaction of animal-vegetal morphogenes with respect to double gradient concept. (Echinoidea)
- INEICHEN, H.; dipl.Biol. — Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a RNA metabolism. (Chironomidae, Diptera)

- b Dormancy. Same species as a
 INGLE, R. W.; Ph.D. – Dept. of Zool., Brit. Museum (Nat. Hist.), Cromwell Rd., LONDON SW7 5BD, England
- a Larval development. (Brachyura, Decapoda, Crustacea)
 INIGUEZ LOBETO, C. – Serv. Embriol. Exp., Dept. Anat., Fac. de Med., Av. Ramon y Cajal, VALLADOLID, Spain
- ISH-HOROWICZ, D.; Ph.D. – Mill Hill Lab., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
- a Genetics of heat-shock proteins. *Drosophila melanogaster* (Diptera)
 IVANOFF-GERARD, Ms. A. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Histo-génése des systèmes aminergiques diencéphaliques à partir du 6e jour de la vie embryonnaire jusqu'à la quatrième semaine postnatale. *Gallus domesticus* (Aves)
 IVANOV, E. A.; Cand. sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Experiments on the segmentation of the axial mesoderm. *Rana temporaria* (Anura), *Gallus domesticus* (Aves)
 IVANOV, J. A.; Dr. – Dept. of Embryol., Univ. of Moscow, Lenin Hills, Moscow 117234, U.S.S.R.
- IVANOV, V. I.; Dr., Prof. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.
- a Determination of imaginal disc cells in normal and mutant strains. *Drosophila melanogaster* (Diptera)
- b Interaction of homoeotic and non-homoeotic genes during development. Same species as a
 c Temperature sensitivity of homoeotic and non-homoeotic mutants. Same species as a
 d Pleiotropy of homoeotic genes. Same species as a
 IVANOVA (KASAS), Ms. O. M.; Dr.biol., Prof. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Comparative embryology. *Synoicum pulmonaria* (Asciidaeae)
 b Asexual reproduction. Same species as a
 IZMAIŁOW, Ms. R.; Dr. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka 52, 31–044 KRAKÓW, Poland
- a Control of apomixis (cytology, embryology). *Alchemilla* spec. (Rosaceae), *Ranunculus auricomus* (Ranunculaceae)
- JACKSON, J. F.; B.A. (Hons.) – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Properties of lens mRNAs; regulation of stability. *Gallus domesticus* (Aves) (with R. M. CLAYTON, D. E. S. TRUMAN, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))
- JACOB, H. J.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)
- a Differentiation of somites. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
 b Ultrastructure of connective tissue differentiation. *Gallus domesticus* (Aves)
 c Scanning and transmission electron microscopy of prelaying stages. Same species as a
 d Origin and development of musculature. Same species as a
 e Development of the embryonic kidney. Same species as a, and *Homo sapiens* (Primates)
 f Migration of embryonic cells. Same species as b
- JACOB, J.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Ultrastructural changes and patterns of DNA, RNA, and protein synthesis in differentiating cells as studied by E.M. autoradiography. *Xenopus laevis* (Anura), *Homo sapiens* (Primates)
 b Characterization of DNA by in situ hybridization of labelled RNA with ultrathin sections of cells and tissues. *Xenopus laevis* (Anura), mouse L cells, HeLa cells (Mammalia)
- JACOB (LOES), Ms. M.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)
- a Differentiation of somites. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
 b Ultrastructure of connective tissue differentiation. *Gallus domesticus* (Aves)
 c Scanning and transmission electron microscopy of prelaying stages. Same species as a
 d Origin and development of musculature. Same species as a
 e Development of the embryonic kidney. Same species as a, and *Homo sapiens* (Primates)
 f Migration of embryonic cells. Same species as b
- JACOBSON, D. C. O.; Ph.D., Prof. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Orientational mechanisms of the outgrowing nerve fibre studied in vivo and in vitro
 b Factors stimulating nerve fibre outgrowth
- JACQUOT, R. L.; D.Sc., Prof. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France
- a Pre- and postnatal functional maturation of the hepatocyte. *Rattus norvegicus* (Rodentia) (with J. M. FELIX and C. LEGRELE)
 b Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. Same species as a (with M. D. NAGEL and C. BILLAT)
 c Endocrine functions of the foetus. Same species as a
- JACUŃSKI, L.; Dr.biol. – Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87–100 TORUŃ, Poland
- a Teratogenesis and regeneration. *Tegenaria atrica* (Araneae, Arachnida)
 JAFFRAY, J. Y. – Lab. d'Histo-Embryol., Fac. de Méd., Bd. Winston Churchill, B.P. 38, 63001

CLERMONT-FERRAND Cedex, France

a Chromosome ultrastructure. *Homo sapiens* (Primates)

JÄGERSTEN, K. G. M.; Ph.D., Prof. — Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

a Larval development. (Pogonophora)

b Comparative studies of larval development. (Invertebrata)

JAMES, B. L.; Ph.D. — Dept. of Zool., Univ. Coll. of Swansea, Singleton Park., SWANSEA, Glamorgan, Wales, U.K.

JAMES, D. A.; D.Phil. — Dept. of Pathol., Wellcome Res. Labs., Langley Court, BECKENHAM, Kent BR3 3BS, England

a Teratogenicity of pharmaceuticals. *Mus musculus*, *Rattus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)b Mutagenicity of pharmaceuticals. *Mus musculus* (Rodentia)

JANDIFRI, Ms. K. M. — Dept. of Developm. Biol., Inst. of Exp. Morphol., Acad. of Sci. of the Georgian SSR, Digomi, 380059 TBILISI, U.S.S.R.

a Participation of nuclear and cytoplasmic substances in control of state of DNA in chromatin. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia).

JANNING, W.; Dr. — Zool. Inst. der Univ., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)

a Analysis of genetic mosaics of internal organs (larval and imaginal), using enzyme marker genes. *Drosophila melanogaster* (Diptera)

JANSEN, J.; M.D., Prof. (Emer.) — Anat. Inst., Univ. of Oslo, Karl Johansgate 47, OSLO 1, Norway

a Morphogenesis of brain stem nuclei. *Balaenoptera musculus*, *B. physalus* (Cetacea)

JANSSEN, P. Th.; Drs. — Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands

a Synthesis of soluble proteins in the whole embryo and in the cultured eye cup (disc electrophoresis, isoelectric focusing, autoradiography). *Gallus domesticus* (Aves) (with H. van der STARRE)

b Biosynthesis and localization of alpha-fetoprotein in early development (immunofluorescence). Same species as a

c Lens proteins in early development. Same species as a

JANTOŠOVÍČOVÁ, Ms. J.; M.V.Dr. — Dept. of Normal Anat., Sch. of Vet. Med., Komenského 73, 041 81 KOŠICE, Czechoslovakia

a Morphogenesis of the testis. *Ovis aries* (Artiodactyla)

JANTZEN (WILKENS), Ms. H. L. M.; Dr. — Physiol. Lehrst., Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG I, B.R.D. (Germany)

a Synthesis of new RNA populations needed for encystment. *Acanthamoeba castellanii* (Rhizopoda)

b Informational value of new transcription products during development. Same species as a

c Translation products in cell free synthesizing systems of stage specific poly-A RNA. Same species as a

d Phosphorylation of histones during development. Same species as a

e Characterization of ribonuclease(s); their activity(ies) during development. Same species as a

f Length of transcribed DNA during development. Same species as a

JARZAB, Ms. B. — Dept. of Gen. Biol., Silesian Acad. of Med., ul. K. Markska 19, 41-808 ZABRZE 8, Poland

a Ontogenesis of calcitonin; extraction and chromatography of tissues derived from pharyngeal pouches and biological testing of obtained fractions (6–12 weeks). *Homo sapiens* (Primates)

JAYLET, A.; D.Sc., Prof. — Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France

a Effects of X-rays on the progeny of irradiated animals; chromosomal anomalies; chromosomal markers in homozygous strains. (Urodela)

b Experimental gynogenesis. (Urodela) (with V. FERRIER)

c Chemical mutagenesis. (Urodela) (with J. C. BEETSCHEN and V. FERRIER)

d Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. (Urodela) (with F. GASSE and J. C. BEETSCHEN)

JEANOVOINE, Ms. G. — Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

a Histogenèse des pituicytes. *Gallus domesticus* (Aves)b Histogenèse de l'adénohypophyse. *Rattus norvegicus* (Rodentia)

JELASKA, Ms. S.; Ph.D. — Dept. of Biol., Fac. of Sci., Rooseveltov trg 6/III, 41001 ZAGREB, P.p. 933, Yugoslavia

a Alternation of embryogenic potential in callus culture; embryo formation by isolated single cells. *Cucurbita pepo* (Cucurbitaceae)

JELÍNEK, R.; MUDr., CSc. — Inst. of Exp. Med., Dept. of Teratol., Czech. Acad. of Sci., Legerova 61, 120 00 PRAHA 2, Czechoslovakia

a Quantitative morphogenesis of the placenta and fetal membranes with respect to teratology. *Gallus domesticus* (Aves), (Placentalia, Mammalia)b Elaboration of an appropriate method for testing the teratogenic activity of drugs. *Gallus domesticus* (Aves), *Rattus norvegicus*, *Mus musculus* (Rodentia)c Embryotoxic effects of normal and pathological blood serum of different species including man. *Gallus domesticus* (Aves)

JENKINSON, E. J.; Ph.D. — Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England

a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)

- b Biology of the trophoblast. Same species as a
 c Early embryonic development. *Mus musculus* (Rodentia)
JENSEN, P. V.; M.Sc. – Inst. of Gen. Zool., Univ. of Copenhagen, 15 Universitetsparken, 2100 COPENHAGEN Ø, Denmark
 a Ultrastructural changes in metamorphosing hearts. *Calliphora erythrocephala* (Diptera)
 b DNA amount and DNA synthesis in the individual cells of the metamorphosing heart. Same species as a
 c Peroxidase secreting epidermal cells in the pharate adult. Same species as a
JERKA-DZIADOSZ, Ms. M.; Dr.nat.sci. – Dept. of Cell Biol., M. Nencki Inst. of Exper. Biol., Polish Acad. of Sci., Pasteur St. 3, 02–093 WARSZAWA, Poland
 a Surface organelle pattern regulation. *Urostylidae* (Ciliata)
 b Genetically determined mirror-image inversion of the morphogenetic field. *Tetrahymena thermophila* (Ciliata)
JÍŘICKA, Z.; M.D., Ph.D. – Inst. of Pharmacol., Czech. Acad. of Sci., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
 a Normal and pathological histology and histochemistry of implantation and placentation. *Homo sapiens* (Primates; Rodentia)
 b Influence of drugs and bacterial toxins on implantation and placentation. Same species as a
JIRSOVÁ, Ms. Z.; M.D. – Inst. of Embryol., Fac. of Med., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
 a Egg transplantation (electron microscopy and cytochemistry of egg transport and implantation in experimental conditions). *Oryctolagus cuniculus* (Lagomorpha)
 b Electron microscopy and cytochemistry of tubal epithelium differentiation. (Rodentia; Carnivora), *Homo sapiens* (Primates)
JOHANNISSON, R.; Dr. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
 a Synthetic capacity and structure of oocytes and nurse cells; deposition of yolk protein in the oocyte. *Daphnia magna* (Cladocera, Crustacea)
 b Gene physiology, Y chromosome. *Drosophila* spp. (Diptera)
 c Genetic regulation of differentiation; male germ line cells. *Drosophila* spp. (Diptera)
JOHN, H. A. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Biosynthesis of contractile proteins during myogenesis in vivo and in vitro. *Mus musculus*, *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
JOHNEN, Ms. A. G.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
 a Die Wirkungsspezifität abnormer Induktoren in der Entwicklung. *Triturus vulgaris*, *Ambystoma mexicanum* (Urodela)
 b Die Bedeutung des Zeitfaktors beim Induktionsvorgang. Dieselben Arten wie a
 c Untersuchungen über die Kompetenzverhältnisse beim Ektoderm. *Ambystoma mexicanum*, *Triturus vulgaris*, *T. alpestris*, *T. helvetica* (Urodela)
 d Wechselwirkung zwischen Ektoderm und Mesoderm in Gastrula und Neurula. Dieselben Arten wie c
 e Mass-effects in primary induction process. Same species as c
JOHNSON, D. R.; Ph.D. – Dept. of Anat., School of Med., Univ. of Leeds, LEEDS LS2 9NL, England
 a Electron microscopy of abnormal tissues, and neuroendocrinology of animals carrying mutant genes. *Mus musculus* (Rodentia)
 b Biochemistry of achondroplastic mutants. Same species as a
 c Mathematical analysis of growth process using multivariate analysis. Various spp.
JOHNSON, M. H.; Ph.D. – Dept. of Anat., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
 a Surface properties of gametes and early embryos (specific probes, e.g. lectins, antibodies, etc.). *Mus musculus* (Rodentia)
 b Early development studied with sensitive micro-methods for determination of protein synthetic patterns in whole or microsurgically dissected normal and mutant embryos. Same species as a
 c Developmental commitment and spatial relationship of cells in early embryos studied with interspecific chimaeras and antigenic markers. *Mus musculus*, *Rattus spec.* (Rodentia)
JOŃCZY, J.; M.Sc. – Zool. Dept., Jagellonian Univ., ul. Krupnicza 50, KRAKÓW 2, Poland
 a Differentiation of primordial germ cells (qualitative and stereological analysis). *Tetraodontophora bilanensis* (Collembola)
JONES (HOLT), Ms. E. C.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
 a The effect of maternal age on morphology and development of fertilized eggs. *Mus musculus* (Rodentia)
JONES, G. E.; Ph.D. – Dept. of Biol., Queen Elisabeth Coll., Univ. of London, LONDON W8 7AH, England
 a Control of cellular movement and adhesion in haemocytes. *Patella vulgata* (Gastropoda)
 b Adhesive specificity between cells of developing neural retina. *Gallus gallus* (Aves)
JONES, K. W.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Location and function of reiterated DNA sequences in nuclei and chromosomes studied by in situ hybridization of complementary RNA. (Metazoa)
 b Ultrastructure, biochemistry, and differentiation of myogenic cells, especially processes of transcription and translation

- c Location of polyadenylated messenger RNAs by in situ hybridization of poly-U(H3) and mRNA complementary cDNAs. (Insecta), *Rattus* spec., *Mus musculus* (Rodentia), *Homo sapiens* and other spp. (Primates)
- d Cloning of cDNA of myogenic cells in *E.coli* plasmid systems
JONG, Ms. G. de; M.Sc. – Dept. of Popul. and Evol. Biol., Genet. Inst., State Univ., Transitorium III, Padualaan 8, UTRECHT, Netherlands
- JONGH, H. J. de; D.Sc. – Dept. of Anat. and Embryol., Univ. of Groningen, Oostersingel 69, GRONINGEN, Netherlands
- a Functional morphology of the head with special reference to larval life and metamorphosis. (Anura)
- b Ultrastructural aspects of metamorphosis of cranial muscles. (Anura)
- JOSEPH, J.; D.Sc., M.D., Prof. – Dept. of Anat., Guy's Hosp. Med. School, LONDON SE1 9RT, England
- a Regeneration: 1. epithelium; 2. whole thickness of adult ear; 3. effects of steroids and drugs. *Oryctolagus cuniculus* (Lagomorpha)
- JOSEPHSEN, K.; D.D.S. – Dept. of Anat., Royal Dent. Coll., Vennelyst Blvd., 8000 ÅRHUS C, Denmark
- a Incisor enamel organ: 1. morphological and functional aspects of maturation zone; 2. effect of fixatives on preservation. *Rattus* spec. (Rodentia)
- b Electron microscopy of tooth development in vitro. *Mus musculus* (Rodentia) (with O. FEJERSKOV and I. THESLEFF)
- JOST, A. D.; D.Sc., M.D.(h.c.), Prof. – Lab. de Physiol. du Dével., Coll. de France, place Marcelin Berthelot, 75231 PARIS Cedex 05, France
- a Development of gonads. (Mammalia)
- b Freemartins. *Bos taurus* (Artiodactyla)
- c Glycogen deposition in fetal liver and its hormonal control
- d Perinatal endocrinology
- JOTEREAU, Ms. F. J. – Lab. d'Embryol., Univ. de Nantes, 38 Bd. Michelet, B.P. 1044, 44037 NANTES Cedex, France
- a Thymus ontogeny; origin, renewal, fate and functional differentiation of thymic lymphocytes in interspecific chimeras. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- JUBERTHIE, C.; D.Sc. – Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
- a Développement. *Phrynx* spec. (Arachnida)
- b Influence des facteurs abiotiques (température) sur le développement embryonnaire des espèces souterraines. *Bathyisciola* spec., *Speonomus* spec., *Antrocharis* spec. (Coleoptera)
- JUBERTHIE-JUPEAU, Ms. L.; D.Sc. – Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
- JUCHAULT, P.; Dr. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
- a Contrôle neurohumoral de la différenciation sexuelle chez des espèces gonochoriques et hermaphrodites. (Isopoda, Crustacea)
- b Intersexualité et monogénie. Same species as a
- JUNERA, Ms. H. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Electrophoresis and immunochemistry of a female protein: vitellogenin. *Orchestia gammarellus* (Amphipoda, Crustacea) (with Y. CROISILLE (Nogent), H. CHARNIAUX-COTTON and J. J. MEUSY)
- JUNG, E.; Dr.rer.nat. – Zool. Inst. I der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
- JURA, Cz.; D.Sc. – Zool. Dept., Jagellonian Univ., ul.Krupnicza 50, KRAKÓW, Poland
- a Early developmental stages. *Tetraodontophora bielanensis* (Collembola)
- b First cleavage, studied with UV micro-beam. *Succinea putris* (Gastropoda)
- JURAND, A.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Teratogenic activity of neurotropic drugs. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia)
- b Mechanism of preventing activity of papaverine hydrochloride on neural tube closure. Same species as a
- c Partial neoteny. *Xenopus laevis* (Anura)
- KACZANOWSKA (DOBROŻAŃSKA), Ms. J.; Dr.ès Sci. – Lab. of Protozool., Inst. of Zool., Warsaw Univ., Krakowski Przedmieście 26/28, 00–927 WARSZAWA, Poland
- KACZANOWSKI, A.; D.Sc. – Lab. of Protozool., Inst. of Zool., Warsaw Univ., Krakowski Przedmieście 26/28, 00–927 WARSZAWA, Poland
- KAFIANI, C. A. – Inst. of Molec. Biol., USSR Acad. of Sci., Vavilov St. 32, MOSCOW 117312, U.S.S.R.
- a Transcription in isolated nuclei of the early embryo. *Misgurnus fossilis* (Teleostei) (with A. A. KOSTOMAROVA)
- KAKEBEEKE, P. I. J.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Chemotaxis and cell aggregation. *Dictyostelium* spec. (Acrasiales)
- KALATOSHVILI, Ms. M. D.; Cand.biol.sci. – Dept. of Animi. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- KALETA, Ms. E. W.; Ph.D. – Dept. of Genet. and Evolut., Jagellonian Univ., Krupnicza 50, 30–060 KRAKÓW, Poland
- a Fertilization in vitro of eggs from inbred and crossbred animals. *Mus musculus* (Rodentia)

- KÄLLÉN, A. J. B.; M.D., Prof. — Tornblad-Inst. for Comp. Embryol., Biskopsgatan 7, 223 62 LUND, Sweden
- KALLIO, P.; Dr.Phil. — Dept. of Bot., Univ. of Turku, 20500 TURKU 50, Finland
- KÁLMLÁN, G.; Ph.M. — Dept. of Anat., Univ. Med. Sch., Kossuth Lajos út 40, P.O. Box 512, 6701 SZEGED, Hungary
- a Developmental histochemistry and electron microscopy of the autonomic ground plexus. *Rattus rattus* (Rodentia) (with B. CSILLIK, M. GAJÓ and E. KNYIHÁR)
- KALTHOFF, K.; Dr.rer.nat. — Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG/Br., B.R.D. (Germany)
- a Anterior morphogenetic determinant. *Smittia* spec. (Chironomidae, Diptera)
- b Photoreactivation of UV irradiated cells. Same species as a
- KALUZA, J. S.; M.D. — Dept. of Neuropathol., Inst. of Pharmacol., Polish Acad. of Sci., Botaniczna str. 3, KRAKÓW, Poland
- a Nonenzymatic oxidation-reduction systems in fiber membranes of the central nervous system in ontogenetic development. *Felis domesticus* (Carnivora), *Rattus norvegicus* (Rodentia)
- KAMLER, Ms. E.; Dr. — Dept. of Ecol. Bioenerget., Inst. of Ecol., Polish Acad. of Sci., Pasteura 3, P.O. Box 64, 00-973 WARSZAWA, Poland
- a Ecological and physiological reasons of variability of egg endowment with energy reserves. *Coregonus albula* (Teleostei)
- KANKAVA, Ms. B. L.; Cand.biol.sci. — Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR., 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- KAPRIO, E. A.; B.Sc.(hons.), B.M., B.Ch. — Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiankatu 7, 00100 HELSINKI 10, Finland
- a Ultrastructure of the limb bud. *Gallus domesticus* (Aves)
- KARCHER (DJURICIC), Ms. V.; D.Sc. — Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
- a Epithelial-mesenchymal interactions, mitosis and differentiation in teeth. *Mus musculus* (Rodentia)
- KARKINEN-JÄÄSKELÄINEN, Ms. M.; M.D. — Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of lens induction. *Gallus gallus* (Aves)
- KARLSSON, B.; Fil.Dr. — Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3b, 223 62 LUND, Sweden
- KARLSSON, L.; Fil.kand. — Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Effects of pollutants on reproduction. (Teleostei)
- KARSSEN, C. M.; Dr. — Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
- KASSNER, J.; Ph.D. — Inst. of Zool., Univ. of Wrocław, ul.Scienciewicz 21, 50-335 WROCŁAW, Poland
- a Ultrastructure of ova and the fertilization process. *Mus musculus* (Rodentia)
- KASYANOV, V. L.; Cand.biol.sci. — Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., Acad. of Sci. of the USSR, VLADIVOSTOK 690022, U.S.S.R.
- a Reproductive cycle, marine spp. (Lamellibranchia; Echinoidea; Asteroidea)
- b Origin of germ cells. (Mollusca; Echinodermata)
- c Larval development. (Asteroidea)
- KAUFMAN, M. H.; Ph.D. — Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Parthenogenetic activation and the factors which influence pre- and post-implantation development of haploid and diploid parthenogenones; biochemical examination of macromolecular synthesis and its regulation during early development in parthenogenetic compared with fertilized eggs and embryos. *Mus musculus* (Rodentia)
- b Factors which influence oocyte maturation and steroidogenesis in Graafian follicles in culture; effect of various agents on gametogenesis and embryogenesis. *Mus musculus*, *Rattus spec.* (Rodentia)
- KAUFMANN, P.; Dr.med. — Anat. Inst., Abt. für Neuroanat., Univ. Krankenhaus Eppendorf, Martinstr. 52, 2 HAMBURG 20, B.R.D. (Germany)
- a Development and chemodifferentiation of the placenta (electron microscopy, enzyme histochemistry). *Cavia porcellus* (Rodentia), *Homo sapiens* (Primates)
- b Development and chemodifferentiation of the cortex cerebri and cerebelli (light microscopy, electron microscopy, enzyme histochemistry). *Mus musculus*, *Rattus norvegicus* (Rodentia)
- KAUROV, B. A.; Dr. — Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.
- a Pattern formation in aggregates of imaginal disc cells. *Drosophila melanogaster* (Diptera)
- b Pleiotropy of homoeotic genes. Same species as a
- KEITH, J. M.; B.Sc.(Hons.) — Teratol. Labs., Royal Coll. of Surg. Res. Establ., Downe, ORPINGTON, Kent BR6 7JJ, England
- a Possible role of neural crest in craniofacial malformations. *Gallus domesticus* (Aves), *Callithrix jacchus* (Primates)
- b Hyperthermia, thalidomide and blighted potatoes (extracts and possible contaminants) as teratogenic agents; collection of normal data; techniques required. *Rattus norvegicus* (Rodentia), *Macaca irus*, *Callithrix jacchus* (Primates)
- c Characteristics of microphthalmic and white mutants with a view to relating the phenotypic effects to developmental events and elucidating the specific action of the mutation. *Mus musculus* (Rodentia)
- KELLY, W. A.; Ph.D. — Anat. Dept., Bristol Univ., University Walk, BRISTOL BS8 1TD, England

- KEMP, R. B.; Ph.D. — Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, U.K.
- a Role of actomyosins and glycoproteins in adhesiveness and movement of embryonic cells. *Gallus domesticus* (Aves)
 - b Interactions between cell types in morphogenesis. *Halichondria panicea*, *Hymeniacidon perleve*, *Opheliaspongia seriata* (Porifera)
 - c Effect of dissociating agents on adhesiveness and sorting out of freshly-dissociated embryonic cells using the vibromixer. Same species as a
 - d Role of conditioning media and tryptic peptides in specific adhesion of embryonic cells. Same species as a
- KHARLOVA, Ms. G. V.; Cand.biol.sci. — Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a Regeneration of thymus and spleen. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- KIEŁBÓWNA, Ms. L.; Ph.D. — Inst. of Zool., Univ. of Wrocław, ul. Sienkiewicza 21, 50–335 WROCŁAW, Poland
- a Myogenesis. *Xenopus laevis* (Anura)
 - b Nucleoli in oogenesis. *Lymnaea* spec. (Gastropoda)
- KIENY, Ms. M. A. SENGEL; D.Sc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France
- a Regulative mechanisms in the differentiation of the limb bud skeleton. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
 - b Cell death in foot morphogenesis. *Gallus domesticus* (Aves)
 - c Role of somitic mesoderm in the initiation of limb development. Same species as b
 - d Somitic origin of limb musculature. Same species as a
- KIERMAYER, O.; Dr.phil., Prof. — Bot. Inst., Univ. Salzburg, Lasserstr. 39, 5020 SALZBURG, Austria
- a Developmental studies in relation to fine-structural elements. *Micrasterias* spec. (Chlorophyceae)
- KILARSKI, W.; Ph.D. — Dept. of Comp. Anat., Jagellonian Univ., ul. Krupnicza 50, 30–060 KRAKÓW, Poland
- a Differences in cell surface interactions with viruses
- KINČURASHVILI, Ms. N. T. — Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR., 31 Chavchavadze Ave., TBILISI, 380030, U.S.S.R.
- KINDAHL, Miss M. E.; Ph.D. — Skeppargatan 51 III, 11458 STOCKHOLM, Sweden
- a Tooth development; reduction of premolars in ontogenesis. *Erinaceus europaeus*, *Tupaia javanica*, *Elephantulus myurus*, *Talpa europaea*, *Eremitalpa granti*, *Sorex araneus*, *Suncus orangiae*, *Crocidura araneus* (Insectivora)
- KING, C. A.; Ph.D. — Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Morphogenesis of flagella. *Naegleria gruberi* (Rhizopoda)
- KING, P. E.; Ph.D. — Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.
- KINK, Ms. J.; Dr.nat.sci. — Dept. of Cell Biol., M. Nencki Inst. of Exper. Biol., Polish Acad. of Sci., Pasteur St. 3, 02–093 WARSZAWA, Poland
- a Dedifferentiation and differentiation of fibrillar structures during encystment and excystment. *Dileptus* spec. (Ciliata)
 - b Regulation of ciliary pattern during regulation of cellular form in different fragments. Same species as a
- KINSKY, Ms. I.; Dr.med. — Anat. Inst., Abt. für Exp. Biol., Univ. Bonn, Nussallee 10, 53 BONN, B.R.D. (Germany)
- a Light and electron microscopy of the development of different states of condensation of constitutive heterochromatin during pre- and postnatal growth. *Microtus agrestis* (Rodentia)
- KIRCHNER, C.; Dr.rer.nat., Prof. — Zool. Inst. der Univ., Ketzerbach 63, 355 MARBURG/Lahn, B.R.D. (Germany)
- KISTLER, G. S.; M.D. — Electron Micr. Div., Dept. of Anat., Univ. of Zürich, Gloriastr. 19, 8006 ZÜRICH, Switzerland
- a Virus-induced embryo- and fetopathies (light and electron microscopy, virology, immunology). *Oryctolagus cuniculus*, *Rattus* spec., *Mus musculus*, *Cavia porcellus*, *Mesocricetus auratus*, *Homo sapiens* (Mammalia)
 - b Organogenesis and organ differentiation, especially the immune system (light and electron microscopy). *Oryctolagus cuniculus*, *Rattus* spec., *Mus musculus*, *Homo sapiens* (Mammalia)
- KLAG, J.; D.Sc. — Zool. Dept., Jagellonian Univ., ul. Krupnicza 50, KRAKÓW, Poland
- a Differentiation of primary germ cells. *Thermobia domestica* (Thysanura)
- KLEIN, H. W.; Dr.med. — Dept. of Anat. and Embryol., Fac. of Med., Erasmus Univ., P.O. Box 1738, ROTTERDAM 3002, Netherlands
- KLEINEBRÉCHT, J.; Dr.rer.nat. — Inst. für Humangenet. der Univ., Paul-Ehrlich Str. 41, 6 FRANKFURT/Main 70, B.R.D. (Germany)
- a Realization of malformations and embryonic death. *Mus musculus* (Rodentia)
 - b Histology of spontaneous abortions. *Homo sapiens* (Primates)
- KLEPAC, R.; M.S. — Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O. Box 166, 41001 ZAGREB, Yugoslavia
- a Development and function of the pituitary-adrenocortical system in foetus and neonate (biochemistry, histology, histochemistry). *Rattus norvegicus* (Rodentia) (with K. MILKOVIĆ and J. PAUNOVIĆ)
- KLOC-STĘPKOWSKA, Ms. M.; Mgr. — Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00–927/I WARSZAWA, Poland

- a Extrachromosomal DNA and its role in oogenesis. (Staphylinidae, Coleoptera)
 KNEGT, E.; Dr. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
- KNESE, K.-H.; Dr.med., Dr.phil., Prof. – Inst. für Histol. und Embryol., Univ. Hohenheim (LH), Fruwirthstr. 16, 7000 STUTTGART 70, B.R.D. (Germany)
- a Histochemistry, enzymology, and electron microscopy of the early histogenesis of the connective and supporting tissue of the presumptive regions of different kinds of mesenchyme, especially of cartilage and bone, and those in lung and kidney. *Gallus domesticus* (Aves), *Bos taurus* (Artiodactyla), *Rattus norvegicus*, *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- b Morphology, enzymology, and electron microscopy of histogenesis, especially of cartilage and bone as well as metamorphosis after hormone application. *Rattus norvegicus* (Rodentia), *Bos taurus* (Artiodactyla)
- c Developmental morphology of embryo. *Bos taurus* (Artiodactyla)
- KNIGHT-JONES, E. W.; D.Phil., Prof. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.
- KNÍŽE, B.; RNDr., Ph.D. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Genetics and cytology of muscle growth. *Gallus domesticus* (Aves), *Bos taurus*, *Sus domesticus* (Artiodactyla) (with H. KNÍŽETOVÁ)
- KNÍŽETOVÁ (MYSLIVEČKOVÁ), Ms. H.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Genetics and cytology of muscle growth. *Gallus domesticus* (Aves), *Bos taurus*, *Sus domesticus* (Artiodactyla) (with B. KNÍŽE)
- KNÖCHEL, W.; Dr.rer.nat., Dr.med. – Inst. für Molek. Biol. und Biochem., Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
- a Regulation of information transfer from DNA to protein with special interest in globin mRNA precursor molecules. *Gallus gallus* (Aves)
- KNOWLAND, J. S.; D.Phil. – Dept. of Anat., Med. School, Bristol Univ., University Walk, BRISTOL BS8 1TD, England
- KNUDSEN, P. A.; M.D., D.D.S., Prof. – Dept. of Anat., Royal Dent. Coll., Vennerlyst Blvd., 8000 ÅRHUS C, Denmark
- a Malformations of the vascular system of brain and head. *Mus musculus*, *Rattus norvegicus* (Rodentia) (with J. BUGGE)
- KNUST, Ms. E.; Dipl.Biol. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Isolation and characterization of ribonucleoprotein particles from testes. *Drosophila hydei* (Diptera)
- KNYIHÁR, Ms. E.; M.D. – Dept. of Anat., Univ. Med. Sch., Kossuth Lajos út 40, P.O. Box 512, 6701 SZEGED, Hungary
- a Developmental histochemistry and electron microscopy of the autonomic ground plexus. *Rattus rattus* (Rodentia) (with B. CSILLIK, M. GAJÓ and G. KÁLMÁN)
- KOCHER-BECKER, Ms. U.; Dr.rer.nat. – Embryonalpharmakol., Freie Univ., Thielallee 69/73, 1000 BERLIN 33, B.R.D. (Germany)
- KOCHER, W.; Dr., Prof. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
- KOČOVA (PEČHÁČKOVÁ), Ms. J.; Dr.med. – Inst. of Histol. and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEŇ, Czechoslovakia
- a The development of the venous system. *Homo sapiens* (Primates)
- KOECKE, J.; Dr.rer.nat. – Anat. Inst., Univ. Kiel, Olshausen Str. 40–60, 23 KIEL, B.R.D. (Germany)
- a Differentiation capacity of the marginal zone in early development. *Ambystoma mexicanum* (Urodea)
- b Application of LiCl upon very early developmental stages. Same species as a
- KOHLER, F. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
- a Expériences (homogreffes) sur l'hématopoïèse embryonnaire. *Gallus domesticus* (Aves) (avec H. GERARD)
- KOHLER, H.-J. – I. Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)
- a Comparative embryology. *Lernaeocera* spec. (Copepoda), *Triops cancriformis*, *Lepidurus apus* (Notostraca, Crustacea)
- KOMAR, Ms. A.; Mgr. – Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
- a Influence of the relative age of gametes on embryonic development. *Mus musculus* (Rodentia)
- b Experimental parthenogenesis. Same species as a
- c Physiology of fertilization. Same species as a
- KONDO, M.; Ph.D., D.Sc. – Lab. of Microbiol., Dept. of Cell Biol., Univ. of Antwerpen, Universiteitsplein 1, 2610 WILRIJK, Belgium
- a Transcriptional regulation of cryptobiotical process during early embryonic development. *Artemia salina* (Anostraca, Crustacea)
- b Regulatory mechanism on gene expression of the extracellular haemoglobins. Same species as a
- c Characterization of mRNA in relation to cell differentiation and morphogenesis. Same species as a
- KONIJN, Th. M.; Ph.D., Prof. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserst. 63, LEIDEN, Netherlands
- a Chemotaxis, cell aggregation and differentiation. (Acrasiales)

- b Effect of adenosine-3', 5'-monophosphate and other cyclic nucleotides on morphogenesis. *Dictyostelium discoideum* (Acrasiales)
- KONYUKHOV, B. V.; Dr.biol., Prof. — Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of the USSR, Profsoyuznaya St. 7 (I), MOSCOW 117312, U.S.S.R.
- a Developmental study of mutational effect of genes which lead to eye and skeletal abnormalities. *Mus musculus* (Rodentia)
- b Genetic control of cell proliferation and differentiation. Same species as a
- KOOLMAN, J.; Ph.D. — Physiol.-Chem. Inst. I, Med. Sch., Univ. of Marburg, 355 MARBURG-Lahnberge, B.R.D. (Germany)
- a Regulation of the metabolism and inactivation of ecdysone. *Calliphora erythrocephala* (Diptera), *Locusta migratoria* (Orthoptera)
- b Purification and characterization of enzymes catalyzing single reaction steps in ecdysone metabolism. Same species as a
- KOOP, H. U.; Dr. — Inst. für Pflanzenphysiol. und Zellbiol., Freie Univ., Kön.-Luise Str. 12–16a, 1000 BERLIN 33, B.R.D. (Germany)
- a Regulation of cell size in different genetical strains. *Acetabularia mediterranea* (Chlorophyceae)
- b Physiology and biochemistry of cyst formation, cyst maturation and gametogenesis. Same species as a
- KOPEĆ, Ms. J.; Ph.D. — Dept. of Physiopathol., Hematol. Inst., Chocimska 5, 00–791 WARSZAWA, Poland
- a Nucleoli in oogenesis. *Enchytraeus albidus* (Oligochaeta)
- b Wound healing after burning (histometry, colchicine). *Rattus norvegicus* (Rodentia)
- KORDYLEWSKI, L.; D.Sc. — Dept. of Comp. Anat., Jagellonian Univ., ul. Krupnicza 50, 30–060 KRAKÓW, Poland
- a Early development of myomeres and their innervation. *Xenopus laevis* (Anura)
- KORKIA (NIJARADZE), Ms. I. R.; Cand.biol.sci. — Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- KORNELIUSSEN, H.; M.D. — Anat. Inst., Univ. of Oslo, Karl Johansgt. 47, OSLO 1, Norway
- a Development of cerebellum (electron microscopy). *Rattus spec.* (Rodentia)
- b Development of muscle fibers and neuromuscular junctions (electron microscopy). Same species as a
- KÖRNER, H. K.; Dr.rer.nat. — Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
- a Experimental developmental morphology of symbiotic organs (mycetomes). *Euscelis plebejus* and other spp. (Cicadina, Homoptera)
- b Host-symbiont relationships. Same species as a
- c Ultrastructure of symbiotic microorganisms during embryonic development. Same species as a
- KOROCHKIN, L. I.; Dr.Med., Prof. — Lab. of Developm. Genet., Inst. of Cytol. and Genet., Pravda St. 9, ap. 36, NOVOSIBIRSK 6300090, U.S.S.R.
- a Experimental morphology, cytochemistry, and cytophysiology of the developing nervous system. *Rattus norvegicus*, *Mus musculus* (Rodentia)
- b Developmental genetics. *Drosophila melanogaster*, *D. virilis* (Diptera)
- c Regeneration of the neural retina with special reference to isozymic patterns of LDH. *Triturus cristatus* (Urodela) (with V. I. MITASHOV, Moscow)
- KOROTKOVA, Ms. G. P.; Dr.biol. — Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Comparative study of regeneration, asexual reproduction, and somatic embryogenesis. *Leucosolenia complicata*, *Sycon lingua*, *Halichondria panicea* and other spp. (Porifera)
- b Development of embryos cultivated in vitro. *Halisarca dujardina*, *Baicalospongia bacillifera* (Porifera)
- c Genesis and evolution of ontogenesis
- KORT, E. J. M. de; Dr. — Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N. 21, NIJMEGEN, Netherlands
- a Development of the spinal cord. *Xenopus laevis* (Anura)
- KOŚCIELSKA, Ms. M. K.; Ph.D. — Dept. of Syst. Zool., Zool. Inst., Univ. of Wrocław, ul. Sienkiewicza 21, 50–335 WROCŁAW, Poland
- a Early developmental stages, gastrulation. *Ageniaspis spec.*, *Monodontomerus spec.*, *Dalibominus spec.* (Chalcidoidea), *Pleolophus basizonus* (Ichneumonidae, Hymenoptera)
- b Trophic relationships between a polyembryonally developing parasitoid and its host (ultrastructure). *Ageniaspis fuscicollis* (Chalcidoidea, Hymenoptera), *Yponomeuta malinellus* (Lepidoptera)
- KOŚCIELSKI, B.; Ph.D. — Inst. of Zool., Univ. of Wrocław, ul. Sienkiewicza 21, 50–335 WROCŁAW, Poland
- a Embryology. (Turbellaria; Aptygota, Insecta)
- b Nucleoli in oogenesis. *Lymnaea spec.* (Gastropoda)
- KOSHELEV, B. V.; Dr.biol. — A.N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave. 33, MOSCOW 117071, U.S.S.R.
- a Gametogenesis, sex cycles, and spawning ecology. *Abramis brama*, *Rutilus rutilus*, *Scardinius erythrophthalmus*, *Cyprinus carpio*, *Tinca tinca*, *Carassius carassius*, *Coregonus lavaretus* and others (Teleostei)
- KOSTOMAROVA, Ms. A. A.; Cand.biol.sci. — Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Transcription of isolated nuclei of the early embryo. *Misgurnus fossilis* (Teleostei) (with C. A. KAFIANI)

- b Distribution of non-histone proteins, synthesized during maturation, between nucleus and cytoplasm of early embryo. Same species as a
KOSTOVIĆ, I.; D.Sc., M.D. – Inst. of Anat. "Drago Perović", Fac. of Med., Univ. of Zagreb, Šalata 11, 41001 ZAGREB, Yugoslavia
- a Morphogenesis of the mesenchyme-neuroepithelial interface (including vascularization) in the telencephalon. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates) (with Lj. KOSTOVIĆ, Inst. of Histol. and Embryol.)
KOSTOVIĆ (KNEŽEVIĆ), Ms. Lj.; M.D. – Inst. of Histol. and Embryol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O. Box 166, 41001 ZAGREB, Yugoslavia
- a Chondrogenesis in the external ear (histology, histochemistry, electron microscopy). *Rattus norvegicus* (Rodentia) (with A. ŠVAJGER and Ž. BRADAMANTE)
b Differentiation of the intercellular matrix during ontogenesis (histology, histochemistry, electron microscopy). Same species as a (with A. ŠVAJGER and Ž. BRADAMANTE)
c Morphogenesis of the mesenchyme-neuroepithelial interface (including vascularization) in the telencephalon. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates) (with I. KOSTOVIĆ, Inst. of Anat.)
KOTOMIN, A. V. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St.26, MOSCOW 117334, U.S.S.R.
- KOZIK, M.; M.D.** – Inst. of Neurol. and Sensory Organs, Med. Acad., 49 Przybyszewskiego St., 60–355 POZNAN, Poland
- a Histochemistry of glia cells in the developing nervous system. *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- b Histochemical mapping of the developing brain. *Rattus norvegicus* (Rodentia)
KOZŁOWSKA, Ms. M.; mgr.of sci. – Dept. of Comp. Anat., Jagellonian Univ., ul.Krupnicza 50, 30–060 KRAKÓW, Poland
- a Early development of muscle fibres. *Salmo trutta* (Teleostei)
KRAL, B.; RNDr. – Dept. of Morphol., Inst. of Vertebr. Zool., Czechoslov. Acad. of Sci., Květná 8, 60365 BRNO, Czechoslovakia
- a Comparative study of chromosomes. (Insectivora; Rodentia)
KRALJ, N.; Ph.D. – Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia
- KRATOCHWIL, K.; Dr.phil.** – Inst. für Molekularbiol., Abt. Biol., Österreich. Akad. der Wissensch., Billrothstr. 11, 5020 SALZBURG, Austria
- a Organ specificity in mesenchymal induction. *Mus musculus* (Rodentia)
b Embryonic development of mammary gland, especially hormone responsiveness and tissue interaction in the hormone response (androgens). Same species as a
KRAUS, Ms. C.; Dr.phil. – Brain Anat. Inst., Untere Zollgasse 71, (Waldau), 3072 OSTER-MUNDIGEN-BE, Switzerland
- a Descriptive and comparative ontogenesis of the brain. (Cetacea)
KRAUS, R.; M.D. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
- KRAUSE, G.; Dr.phil., Prof. (Emer.)** – Zool. Inst.I der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
- KREDIET, P.; M.V.D.** – Dept. of Anat. and Embryol., Med. Fac., Erasmus Univ., P.O.Box 1738, ROTTERDAM 3002, Netherlands
- KRESS, Ms. A.; Ph.D.** – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland
- a Oogenesis. (Amphibia)
b Variability of egg-capsule volumes during development. (Opistobranchia, Gastropoda)
KRITCHINSKAYA, Ms. E. B.; Cand.biol.sci. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Asexual reproduction, regeneration, and somatic embryogenesis. *Dugesia tigrina* (Turbellaria), *Aeolosoma spec.* (Oligochaeta)
KRMPOTIĆ-NEMANIĆ, Ms. J.; Prof. – Inst. of Anat. "Drago Perović", Fac. of Med., Univ. of Zagreb, Šalata 11, 41001 ZAGREB, Yugoslavia
- KROFGER, H.; Dr.rer.nat., Prof.** – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
- a Puffing patterns in giant chromosomes and the mechanism by which they are evoked and controlled. *Chironomus thummi*, *Ch. tentans* (Diptera)
b Embryology and genetics of pattern formation. *Drosophila melanogaster* (Diptera)
KRUCHKOVA, Ms. G. A. – Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., Acad. of Sci. of the USSR, VLADIVOSTOK 690022, U.S.S.R.
- a Larval development and metamorphosis. (Echinoidea)
KRZANOWSKA, Ms. H.; Ph.D. – Dept. of Genet. and Evolut., Jagellonian Univ., Krupnicza 50, 30–060 KRAKÓW, Poland
- a Studies of heterosis: sperm characters, fertilization, and cleavage rate in inbred and crossbred animals. *Mus musculus* (Rodentia)
KRZYSZTOFOWICZ, Ms. A.; D.Sc. – Zool. Dept., Jagellonian Univ., ul.Krupnicza 50, KRAKÓW, Poland
- a Oogenesis and embryonic development. *Tetradontophora bielanensis* (Collembola)
KUBLI, E.; Dr.Phil. – Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- a Nucleic acids of various mutants. *Drosophila melanogaster* (Diptera)
b tRNA gene localization, mechanisms of suppression, tRNA precursors. Same species as a
KUCIAS, J.; Ph.D. – Dept. of Gen. Biol., Inst. of Biol. and Morphol., Silesian Acad. of Med., ul.K.Marksa 19, 41–808 ZABRZE, Poland
- a Negentropy and physical entropy during cell differentiation. *Rattus norvegicus* (Rodentia), *Hydra vulgaris*, *H. viridissima* (Hydrozoa)

- KUDOKOTSEV, V. P.; Dr. – Dept. of Biol., Kharkov State Univ., Dzerjinsky Square 4, KHARKOV, U.S.S.R.
- KUHN, H.-J.; Dr.med., Prof. – Anat. Inst. der Univ., Kreuzbergring 36, 34 GÖTTINGEN, B.R.D. (Germany)
- KUHN, O.; Dr.rer.nat., Prof. (Emer.) – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- KÜHNEL, W.; Dr.med., Prof. – Abt. Anat. der Rhein.-Westf. Techn. Hochschule, Med.-Theor. Inst., Melatenstr. 211, 5100 AACHEN, B.R.D. (Germany)
- a Structure and function of the foetal membranes (morphology, histochemistry). *Oryctolagus cuniculus* (Lagomorpha)
 - b Morphology of preimplantation stages and their endocrinological developmental control. *Cavia porcellus*, *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
 - c Morphology and histochemistry of the female genital tract and of accessory male genital glands during development. Same species as a
- KUJAT, R.; M.Sc. – Dept. of Comp. Anat., Jagellonian Univ., ul.Krupnicza 50, 30–060 KRAKÓW, Poland
- a Development of the intestine. *Xenopus laevis* (Anura)
- KULIKOVA, Ms. V. A. – Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., Acad. of Sci. of the USSR, VLADIVOSTOK 690022, U.S.S.R.
- a Larval development. marine spp. (Lamellibranchia)
- KUNZ, W.; Dr., Prof. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Replication of satellite DNA during polyploidization and differentiation of diploid tissues. *Drosophila virilis* (Diptera)
 - b Magnification of ribosomal DNA in the Y chromosome (filter saturation hybridization). *Drosophila hydei* (Diptera)
- KURRAT, H.-J.; Dr.rer.nat. – Anat. Inst. der Univ., Lindenburg, 5 KÖLN 41, B.R.D. (Germany)
- a Segregation of the central nervous system; analysis of induction. *Ambystoma mexicanum* (Urodela)
 - b Influence of neural material on the mesodermal differentiation pattern. Same species as a
- KURULASHVILI, Ms. L. I. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- KÜTHE, H. W.; Dr.rer.nat., Prof. – Fachber. Biol. der Univ., Lahnberge, 355 MARBURG 1, B.R.D. (Germany)
- a Makromolekulare Syntheseprozesse während Determination und Differenzierung im Embryo. (Holometabola, Insecta)
- KVINNSLAND, S.; Dr.odont., Assoc.Prof. – Inst. of Anat., Univ. of Bergen, Årstadvei 19, 5000 BERGEN, Norway
- a Growth of cartilage (especially craniofacial) in vivo and in vitro (3H-thymidine, 35S-sulfate and 3H-proline incorporation). *Rattus* spec. (Rodentia)
 - b Growth of autotransplanted nasal septum (3H-thymidine incorporation). Same species as a
- LAANE, H. M. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Light microscopy, electron microscopy, histochemistry, physiology, and experimental teratogenesis of heart development in the embryo. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with J. A. ROEST and J. A. LOS)
- LAAT, S. W. de; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
- a Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, *Mus musculus* (Rodentia) (with J. G. BLUEMINK, P. T. van der SAAG, W. H. MOOLENAAR and S. A. NELEMANS)
- LABORDUS, V.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands
- a Effect of total and partial UV-irradiation on cleavage and morphogenesis. *Lymnaea stagnalis*, *Bithynia tentaculata*, *Crepidula fornicata* (Gastropoda)
 - b Repair processes in eggs after UV-irradiation. *Lymnaea stagnalis* (Gastropoda)
- LABOUR, G. R. – Lab. de Zool., Univ. de Paris XI, Centre d'Orsay, 91405 ORSAY, France
- a Cytology of fat body development, with special reference to cell ultrastructure and cytochemistry. *Leptinotarsa decemlineata* (Coleoptera)
- LABROUSSE, J. P.; Dr.3e Cycle – Lab. de Biol. du Dévl., Univ. Paris V (René Descartes), 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
- a Gene amplification in oocytes. *Pleurodeles waltli* (Urodela)
- LABROUSSE, Ms. M.; D.Sc. – Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Cytogenetics. (Amphibia)
- LACROIX, J. C.; Prof. – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Centre de Rech. d'Ivry, 67 rue M.Günsbourg, 94200 IVRY-sur-SEINE, France
- a Organization and physiology of lampbrush chromosomes; involvement of lampbrush chromosomal RNA in oogenesis and embryogenesis. *Pleurodeles poireti*, *P. waltli* (Urodela)
- LAFONT, R. D. A.; M.Sc. – Lab. de Zool., École Norm. Supér., 46 rue d'Ulm, 75230 PARIS Cedex 05, France
- a Differentiation of imaginal wing discs: nucleic acid metabolism, changes in enzyme titers. *Pieris brassicae* (Lepidoptera)

- b Ecdysone and juvenile hormone levels during development. Same species as a
 c In vitro ecdysone binding and action. Same species as a
LAKSHMI, Ms. M. S.; Ph.D. – Dept. of Biochem. Pathol., Univ. Coll. Hosp. Med. School, University St., LONDON WC1E 6JJ, England
 a Morphogenetic effects of follicle-stimulating hormone. *Gallus domesticus* (Aves) (with G. V. SHERBET)
 b Biochemical and biophysical characterization of the cell surface using natural pH gradients. (with G. V. SHERBET)
 c Epigenetic mechanisms and paraneoplastic phenomena. (with G. V. SHERBET)
LALLIER, R. A.; D.Sc. – Station Zool., Univ. de Paris VI, 06230 VILLEFRANCHE SUR MER, France
 a Biochemical aspects of embryonic determination (studies of animalizing and vegetalizing agents). *Paracentrotus lividus* (Echinoidea)
LAMERS, W. H. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
 a Developmental changes in activity of liver carbamylphosphate syntase. *Ambystoma mexicanum* (Urodela)
LANDAUER, W.; Ph.D., Prof. – Dept. of Human Genet. and Biometry, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
 a A causal analysis of teratogenic action of various chemical compounds. *Gallus domesticus* (Aves)
 b Cholinomimetic substances and other compounds interfering with neuromuscular development. Same species as a
LANDSTRÖM, U. – Dept. of Zoophysiol., Univ. of Umeå S 901 87 UMEÅ, Sweden
 a Cell transformation and cell differentiation. *Xenopus laevis* (Anura), *Ambystoma mexicanum* (Urodela) (with S. and H. LØVTRUP)
LANG, A.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
 a In vitro myogenesis. *Drosophila* spec. (Diptera)
LANOT, R.; Dr.Sc. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
 a Axial malformations: causal analysis of the teratogenic action of trypan blue and RNase. *Gallus gallus* (Aves)
 b Causal analysis of somitogenesis. Same species as a
 c Morphology of normal and experimentally produced cell degeneration in the axial organs. Same species as a
 d Causal analysis of early angiogenesis. Same species as a
LANSDOWN, A. B. G.; Ph.D. – Clin. Res. Ctr., Northwick Park Hosp., Watford Rd., HARROW HA1 3UJ, Middlesex, England
 a Effect of viral infections on foetal and neonatal development. *Rattus* spec., *Mus musculus* (Rodentia)
 b Effect of pancreatitis on pregnancy
 c Effect of prenatal growth retardation on postnatal development
 d Effect of exposure to anaesthetics (halothane, nitrous oxide) on pregnancy. *Rattus* spec., *Homo sapiens* and other spp. (Mammalia)
LARDE, Ms. P.; Dr.méd. – Lab. d'Embryol., Univ. de Nancy I, B.P.1080, 54019 NANCY Cedex, France
 a Development of inferior vena cava. *Homo sapiens* (Primates)
LARINK, O.; Dr. – Zool. Inst. der Techn. Univ., Pockelstr. 10a, 3300 BRAUNSCHWEIG, B.R.D. (Germany)
 a Descriptive study of postembryonic development, especially moulting, ultrastructural changes of sensilla. Lepismatidae, Machilidae (Thysanura, Insecta)
LA SPINA (D'ANNA), Ms. R.; D.Sci. – Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
 a Fine structure of unfertilized eggs and egg fragments. *Ascidia malaca*, *Phallusia mammillata* (Asciidae)
 b Analysis of colour pattern; ultrastructure of chromatophores. *Discoglossus pictus* (Anura)
LASSAK, H. F.; Dipl.Biol. – Inst. für Allgem. Biol. der Univ., Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
 a Isolation and characterization of messenger RNA, messenger ribonucleoproteins and polyribosomes. *Drosophila hydei* (Diptera), *Locusta migratoria* (Orthoptera)
LASSEGUES (FLAMAND), Ms. M.; Dr.Biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
 a Embryology. *Sphaeroma* spec. (Isopoda, Crustacea) (with N. DAGUERRE de HUREAUX)
 b Cytophotometry of cell cycle during the first embryonic stages. Same species as a
LATTAUD, C. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
 a Control of sex differentiation and gametogenesis (organ culture). *Eisenia foetida* (Oligochaeta)
 b Effects of inhibition of protein synthesis by cycloheximide in sexually active animals. Same species as a
LAUGÉ, Ms. G.; D.Sc. – Lab. d'Entomol. et d'Ecophysiol. Exp., Univ. de Paris XI (Paris-Sud), Bât.446, 91405 ORSAY, France
LAUTHIER, M.; Dr.3è cycle – Lab. d'Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY-sur-SEINE, France

- a Organogenèse des membres (histochimie, microchirurgie, cytologie ultrastructurale, tératogénèse expérimentale). Pleurodeles waltl (Urodea)
LAVERDURE, Ms. A.-M. – Lab. de Biol. Anim. A, Fac. des Sci., Univ. Paris-Sud, Bât. 445, 91405 ORSAY, France
- LAWRENCE**, A. J.; Ph.D. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K
- a Control and temperature dependence of phospholipase activity in cell membranes; role of lipid degradation in membrane fusion; lipid segregation in membranes. *Oryctolagus cuniculus* (Lagomorpha)
- LAWRENCE**, P. A.; Ph.D. – Lab. of Molec. Biol., Med. Res. Counc., Hills Rd., CAMBRIDGE CB2 2QH, England
- a Compartments in insect development. *Drosophila melanogaster* (Diptera), *Oncopeltus fasciatus* (Heteroptera)
- b Developmental genetics of homoeotic mutants. Same species as b
- LAWSON**, Ms. K. A.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
- a Morphogenetic and growth control of salivary gland, lung and metanephros in vitro. *Rattus norvegicus*, *Mus musculus* (Rodentia)
- LAZARD** (HAUBEN), Ms. L.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, NOGENT-sur-MARNE, France
- a Degeneration of male germ cells in some t mutants; their possible transformation in tumorigenic cells: growth in vitro, transplantation in vitro, antigenic affinity with embryocarcinomal cell lines originating from germ cells (as F 9 from mouse 129). *Mus musculus* (Rodentia)
- b Retro-transformation of a teratocarcinomal cell line of germinal origin, grown in vitro, into cells having recovered spermatogenetic abilities. Same species as a
- LE DOUARIN** (CHAUVAC), Ms. N. M.; D.Sc., Prof. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Migration and differentiation of neural crest cells (interspecific grafts). *Gallus gallus*, *Coturnix c. japonica* (Aves)
- b Differentiation of the autonomic nervous system studied in chimeric embryos. Same species as a
- c Development of primary lymphoid organs. Same species as a
- d Migration and homing of lymphoid stem cells studied in embryos by interspecific chimeras. Same species as a
- e Experiments on liver development. Same species as a
- LEENDERS**, H. J.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a The mechanism of gene activation by factors involved in respiratory metabolism; experimental puff induction. *Drosophila hydei* (Diptera)
- LEES**, A. D.; Sc.D., Prof. – Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks. SL5 7DE, England
- a Control of polymorphic development with special reference to environmental factors and hormones. *Megoura viciae* (Aphididae, Homoptera)
- LEEUWEN**, F. W. van; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction with hormones during maturation and adaptation of the nervous system. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- LEFFORD** (FERNANDO), Ms. F.; Ph.D. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Migratory behaviour of cells in vitro
- LEFRÈSNE**, J.; M.Sc. – Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
- a Étude expérimentale de la segmentation. *Ambystoma mexicanum* (Urodea)
- LE GARFF**, B.; Dr. 3e cycle – Lab. de Biol. Anim. 1er Cycle, Univ. de Rennes, Av. du Gén. Leclerc, 35031 RENNES Cedex, France
- a Development of malpighian system during larval life and metamorphosis; normal development; nutritional factor; transplantation; culture in vitro. *Galleria mellonella* (Lepidoptera)
- b Comparative research of the development of malpighian system. *Tineidae* and other families (Lepidoptera)
- LEGAY**, J. M.; D.Sc., Prof. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Morphogenesis. *Bombyx mori* (Lepidoptera)
- LEGENDRE**, R.; Dr.rer.nat., D.Sc., Prof. – Lab. de Zool. II (Morphol. et Écol.), Univ. des Sci. et Techn. du Languedoc, place E. Bataillon, 34060 MONTPELLIER, France
- a Embryonic and post-embryonic development. (Araneida, Arachnida)
- LEGRAND**, C.; D.Sc. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât. A, 7ème étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Fonctions, morphogénèse et cytophysiologie du trophoblaste intra-artériel. *Rattus norvegicus* (Rodentia)
- b Effets de l'ovariectomy tardive sur l'ultrastructure et la fonction endocrine du placenta. Même espèce comme a
- LEGRAND** (IAMELIN), Ms. E.; Dr., Prof. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
- a Contrôle génétique et humoral du sexe. *Idotea balthica* (Isopoda, Crustacea)
- b Effect of temperature, photoperiod and salinity on inversion of sex and intersexuality. Same species as a
- LEGRAND**, J. J.; Dr., Prof. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France

- a Contrôle génétique, épigénétique et humoral du sexe chez des espèces gonochoriques. *Porcellio dilatatus*, *Armadillidium vulgare* (Isopoda, Crustacea)
- b Action at cellular and organic level of infectious agents (bacteroids, virus) and of external factors (temperature, photoperiod) on inversion of sex and intersexuality. Same species as a
- LEGRELE, C.; Dr.3e cycle – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France
- a Pre- and postnatal functional maturation of the hepatocyte. *Rattus norvegicus* (Rodentia) (with J. M. FELIX and R. L. JACQUOT)
- LEHMANN, K.; Dr.rer.nat. – Lehrst. Exper. Morphol., Zool. Inst. der Univ. Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Structural and biochemical aspects of flight muscle protein development and z-disc during metamorphosis. *Ephesia kühniella*, *Galleria mellonella* (Lepidoptera)
- LEHTONEN, E. I.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with L. O. SAXÉN, J. J. WARTIOVAARA, S. NORDLING, P. EKBLOM and J. SALONEN)
- LEHTONEN, J. – Dept. of Bot., Univ. of Turku, 20500 TURKU 50, Finland
- LEIBENGUTH, F.; Dr.rer.nat., Prof. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
- a Mechanisms controlling ontogeny and tissue distribution of isoenzyme patterns by differential allele activity. *Ephesia* (= *Anagasta*) *kühniella* (Lepidoptera)
- b Onset of embryonic gene expression in vivo and in vitro. *Drosophila melanogaster* (Diptera)
- LEIKOLA, A. H. A.; Ph.D. – Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiankatu 7, 00100 HELSINKI 10, Finland
- a Primary determination during gastrulation. *Gallus domesticus*, *Coturnix coturnix* (Aves)
- LELIEVRE, Ms. C. S. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Early determination of neural crest derivatives, especially mesectodermal and ganglion derivatives. *Gallus gallus*, *Coturnix c. japonica* (Aves)
- LEMEŽ, L.; MUDr., Doc. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
- a Experimental topogenesis and morphology of the pneumogastric system. *Gallus domesticus* (Aves)
- b Thrombocyte development. Same species as a
- c Erythrocyte life span in the embryo. Same species as a
- LE MOIGNE, A.; Prof. – Lab. de Biol. Anim., Univ. Paris XII (Val de Marne), av. du Gén. de Gaulle, 94000 CRÉTEIL, France
- a Développement embryonnaire (microscopie électronique). (Planariidae, Turbellaria)
- b RNA and protein synthesis, and cellular differentiation in regeneration (electron microscopy, biochemistry). Same species as a
- c Activity of enzymes governing DNA synthesis during regeneration. Same species as a
- LEMTIS, H. G.; Dr.med., Prof. – Spec. Team of Exp. Gynecol. of the Dept. of Obstet. and Gynecol., Klin. Steglitz, Free Univ. of Berlin, Hindenburgdamm 30, 1 BERLIN 45, B.R.D. (Germany)
- a Architecture of the fetal and maternal placental blood vessels (corrosion preparations), and correlation of abnormal placental circulation with congenital malformations. *Homo sapiens* (Primates)
- LENDER, Th.; Prof. – Lab. de Biol. Anim. A, Fac. des Sci., Univ. Paris-Sud, Bât. 445, 91405 ORSAY, France
- LENDON, R. G.; Ph.D. – Dept. of Anat., The Univ., Stopford Bldg., Oxford Rd., MANCHESTER M13 9PT, England
- a Embryogenesis of trypan blue induced spina bifida, exencephalus and facial abnormalities. *Rattus norvegicus* (Rodentia)
- b Effect of vitamin deficiency on the incidence of congenital malformations. Same species as a
- LENICQUE, P. M.; D.Sc. – Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France
- a Control of regeneration by some first messengers (neurohormones, polypeptides) and second messengers (nucleotides). *Dugesia tigrina* (Turbellaria), *Metridium senile* (Actinozoa)
- LENZ, W.; Dr.med., Prof. – Inst. für Humangenet., Westf. Wilhelms Univ., Vesaliusweg 12–14, 4400 MÜNSTER, B.R.D. (Germany)
- a Classification problems of asymmetrical limb malformations. *Homo sapiens* (Primates)
- LE PENNEC, M. L. M.; Dr.3e Cycle – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France
- a Laboratory rearing of larvae and juveniles. Various spp. (Lamellibranchia)
- b Morphogenesis of the hinge in larvae. Veneridae, Pectinidae, Mytilidae, Ostreidae, Anomiidae and others (Lamellibranchia)
- LEPORI, N. G.; Prof. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
- LE ROUX, Ms. S.; D.E.A. – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France
- a Larval growth: 1. effect of feeding unicellular algae; 2. effect of hydrocarbons. *Mytilus edulis*, *Pecten maximus* (Lamellibranchia)
- LESCHER-MOUTOUË, Ms. F. – Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
- a Reproduction, life cycle, and postembryonic development, especially of hypogean species: *Speocyclops* spp., *Graeteriella* spp., *Diacyclops* spp., *Eucyclops* spp. (Copepoda, Crustacea)

- LESTAGE, J.; Dr.biol.anim. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
- a Étude expérimentale de l'influence des facteurs nutritionnels sur la morphogenèse du tube digestif et du pancréas. *Rana dalmatina*, *Bufo bufo*, *Discoglossus pictus*, *Xenopus laevis* (Anura). *Triturus helveticus*, *Salamandra salamandra* (Urodela)
 - b Modifications des patterns enzymatiques au cours de la différenciation des cellules intestinales. *Bufo bufo*, *Xenopus laevis* (Anura)
- LEVAK (ŠVAJGER), Ms. B.; D.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O. Box 166, 41001 ZAGREB, Yugoslavia
- a Early differentiation; transplantation, *in vitro* culture. *Rattus norvegicus* (Rodentia) (with N. ŠKREB and A. ŠVAJGER (Inst. of Histol. and Embryol.))
- LEVIS, A. G.; Prof. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy no embryological work in progress
- LEWIS, J. H.; D.Phil. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. Sch., LONDON W1P 6DB, England
- a Limb development, especially innervation. *Gallus domesticus* (Aves)
 - b Mathematical problems in pattern formation
- LEZZI, M.; Dr.sci.nat. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Effect of hormones and ions on gene function. Chironomidae (Diptera)
- LHEUREUX, E. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France
- a The fate of different tissues in regenerated limb. *Pleurodeles waltli* (Urodela)
- LIERSE, W.; Dr.med., Prof. – Abt. Neuroanat., Anat. Inst. der Univ., Martinistrasse 52, 2 HAMBURG 20, B.R.D. (Germany)
- a Ultrastructure and histochemistry of brain and retina development. *Cavia porcellus*, *Rattus spec.* (Rodentia)
 - b The biological aspect of neuroblast and glioblast following x-irradiation and hyperbaric oxygenation. Same species as a
 - c The development of vascularization of the brain. *Cavia porcellus*, *Rattus spec.* (Rodentia), *Canis familiaris* (Carnivora), *Homo sapiens* (Primates)
 - d Teratology of retina and brain. *Rattus spec.* (Rodentia)
- LIMBORGH, J. van; M.D., Prof. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Sex differentiation. *Anas boschas* (Aves)
 - b Morphogenesis of the skull. *Gallus domesticus* (Aves)
 - c Development of the harelip condition (descriptive studies). *Homo sapiens* (Primates)
- LINDE, L. A.; Dr.Odont. – Dept. of Histol., Lab. of Oral Biol., Univ. of Göteborg, Fack, 400 33 GÖTEBORG 33, Sweden
- a Tooth calcification studied by microdissection and microchemistry: 1. Glycosaminoglycans, proteins and glycoproteins in the odontoblast-predentine layer; 2. Odontoblastic enzymes in proteoglycan degradation and phosphate release. *Rattus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- LINDENMAYER, A.; Ph.D., Prof. – Theor. Biol. Group, State Univ. of Utrecht, Padualaan 8, UTRECHT, Netherlands
- a Morphogenetic processes giving rise to phyllotactic patterns of the shoot apex. (Pteridophyta; Spermatophyta)
 - b Developmental algorithms for cell lineage and cellular interactions considered from the point of view of automata and language theory
 - c Mathematical models for vegetative and flowering development in complex inflorescences. (Compositae)
 - d Computer simulation of distribution of cell cycle phases in growing roots. (Gramineae)
 - e Graph-generating systems as models of multidimensional development, particularly of hexagonally packed cellular sheets: wing (*Drosophila spec.*, Diptera); retina (*Gallus gallus*, Aves)
- LINDSAY, Ms. F. E. F.; M.R.C.V.S. – Anat. Dept., Vet. Sch., Univ. of Glasgow, Bearsden Rd., GLASGOW G6 1IQH, Scotland, U.K.
- LINSKENS, H. F.; Dr., Prof. – Dept. of Bot., Sect. Molec. Developm. Biol., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Physiological and biochemical mechanism of the fertilization barrier during pollen tube growth, pollen germination, and in the ovule. *Petunia spec.* (Solanaceae), *Lilium spec.* (Liliaceae)
 - b Induction of meiotic division. *Ulva spec.* (Chlorophyceae), *Lilium spec.* (Liliaceae)
 - c Dormancy. *Agrostemma githago* (Caryophyllaceae)
- LIOSNIK, L. D.; Dr.biol., Prof. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a Mechanisms controlling the restoration of inner organs. *Rattus norvegicus*, *Mus musculus* (Rodentia)
- LISSIA (FRAU), Ms. A. M.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
- LITVAC, B.; † M.D. – Dept. of Med. Biol., Med. School, TIMIȘOARA, Rumania
- LIWSKA, Ms. J.; Dr.Biol. – Dept. of Histol. and Embryol., Warsaw Agric. Univ., ul.Nowoursynowska 166, 02-766 WARSZAWA, Poland
- a Ultrastructure of hypophysis development in the embryo. *Sus scrofa domesticus* (Artiodactyla)
- LÖFBERG, J. E.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

- a Extracellular matrix fibrils as substrata for migrating neural crest cells and extending neurites in embryos (SEM, TEM). (Amphibia)
- LOHMANN, K.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Cytochemistry and biochemistry of gene activation during gastrulation and neurulation, especially gene amplification and nucleic acid synthesis. *Triturus vulgaris* (Urodea)
- b DNA, RNA and protein synthesis in the cell cycle of embryonic cells. Same species as a
- LOMBARD (DES GOUTTES), Ms. M. N.; D.Sc. – Unité de Physiol. Cell., U 22 INSERM, Inst. du Radium, Bât. 110, 91405 ORSAY, France
- a Steroidogenetic cells in developing ovary (cytology, light and electron microscopy, histochemistry of delta-5-3-beta-hydroxysteroid dehydrogenase). *Mus musculus* (Rodentia)
- b Factors affecting in vitro 3H-thymidine uptake by embryonic and post-embryonic hepatic cells. *Rattus norvegicus* (Rodentia)
- c Serum and liver cytosol factors affecting cell cycle frequency of hepatocytes during postnatal development. Same species as b
- d Sex-related responses to in vivo stimulation of cell proliferation in the liver. Same species as b
- e Postnatal plasmatic hormone level variations in relation with experimental induction of a wave of synchronized hepatocytes entering a cell cycle (S-phase). Same species as b
- LONNING (VADER), Ms. S.; Dr.phil. – Inst. of Biol. and Geol., Univ. of Tromsø, 9001 TROMSO, Norway
- LOON, L. C. van; Dr., Ir. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
- LOONES, Ms. M. T.; Dr.3e Cycle – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivry, 67 rue M. Günsbourg, 94200 IVRY-sur-SEINE, France
- a Spontaneous and induced mutations detected on lampbrush chromosomes and their relationship with embryogenesis. *Pleurodeles poireti*, P. waltl (Urodea)
- LOPASHOV, G. V.; Dr.biol., Prof. – Inst. of Developm. Biol., Acad. of Sci. of the U.S.S.R., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Inductive interactions of the cells in differentiating retina by means of combinations of cells of the eye rudiment and the gastrula ectoderm. *Rana temporaria*, *Xenopus laevis* (Anura)
- b Stimulation of metaplasia of the pure pigmented epithelium of adults into retina by means of agents from newly differentiated retina. (Rodentia) (with A. A. SOLOGUB)
- c Inductive transformation of iris and pigment epithelium into lens tissue by agents from lens epithelium. *Rana temporaria* (Anura) (with O. A. HOPERSKAYA)
- d Artificial transformation of nucleo-cytoplasmic fragments under the action of living retina. Same species as c
- LOS, J. A.; M.D. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Light microscopy, electron microscopy, histochemistry, physiology, and experimental teratology of heart development in the embryo. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with H. M. LAANE and J. A. ROEST)
- b Cell interactions in the embryonic heart. *Gallus domesticus* (Aves) (with J. A. ROEST)
- LOUVET, J. P.; Dr.Biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Ultrastructure of the differentiation of ectodermal derivatives of the germ band. *Carausius spec.* (Phasmida)
- b Segment morphogenesis and neurogenesis. Same species as a
- c Comparative ultrastructural study of the pleuropodium. *Carausius spec.* (Phasmida), *Locusta spec.* (Orthoptera), *Rhizotrogus spec.* (Coleoptera), *Pyrrhocoris spec.* (Heteroptera)
- LØVTRUP (REIN), Ms. H.; Fil.Dr. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEÅ, Sweden
- a Mitochondrial differentiation during early ontogenesis. *Xenopus laevis* (Anura)
- b Cell transformation and cell differentiation. Same species as a and *Ambystoma mexicanum* (Urodea) (with S. LØVTRUP and U. LANDSTRÖM)
- c Metabolic processes during early development (glycolysis, pentose phosphate shunt and oxidative metabolism). Same species as a
- LØVTRUP, S.; Dr.phil., Prof. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEÅ, Sweden
- a Cell transformation and cell differentiation. *Xenopus laevis* (Anura), *Ambystoma mexicanum* (Urodea) (with H. LØVTRUP and U. LANDSTRÖM)
- b Differentiation of mitochondria. *Xenopus laevis* (Anura) (with H. LØVTRUP)
- LUBSEN, Ms. N. H.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Composition and function of primary gene products from newly activated puffs. *Drosophila hydei* (Diptera)
- LUCAS, A.; Dr.Sci., Prof. – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France
- a Experimental rearing of larvae; effect of pollutants and nutrition on growth and mortality. *Mytilus edulis*, *Pectinidae*, *Veneridae* (Lamellibranchia)
- b Morphogenesis of reproductive apparatus: gonad differentiation; juvenile sexuality. (Lamellibranchia)
- LUCEY, E. C. A.; B.Sc. – Res. Film Unit., Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Film of normal development. *Gallus domesticus* (Aves)
- b Technique of in vitro culture of embryo; descriptive material covering first 72 hours of development in vitro. Same species as a
- c Film showing nuclear transfer technique. (Amphibia)
- d Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. *Gallus*

- domesticus (Aves), *Mus musculus* (Rodentia)
 LUDWIG, K. S.; Dr.med., Prof. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland
 a Histochemistry of ripening ovarian follicles and the influence of steroid hormones. *Rattus spec.*, *Mesocricetus auratus* (Rodentia), *Homo sapiens* (Primates)
- LÜGER, O.; Dr. – Inst. für Molek.biol., Abt. Biol., Österreich. Akad. der Wissensch., Billrothstr, 11, 5020 SALZBURG, Austria
 a Control of differentiation and DNA synthesis in heterokaryons and cell hybrids. (Aves; Mammalia)
 b Muscle differentiation in vitro; influence of fusion with somatic cells. (Aves; Mammalia)
 LUI, A.; Dr.biol., Prof. – Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia
 LUKE, D. A.; DOrthRCS – Dept. of Oral Anat., Dental School, Northumberland Rd., NEWCASTLE upon Tyne NE1 8TA, England
 a Effects of steroid hormones on oral mucosa in vitro. *Mus musculus* (Rodentia)
 b Effect of mast cell degranulation on proliferation in oral epithelium. Same species as a
 LUNDQUIST, A.; Fil. Mag. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3, 223 62 LUND, Sweden
 LUTZ, H.; D.Sc., Prof. – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
 a Développement du blastoderme pendant les premières heures de l'incubation. *Anas spec.* (Aves)
 b Culture in vitro du blastoderme. (Aves) (avec Y. LUTZ-OSTERTAG)
 c Formation de l'entoblaste. (Aves)
 d La polyembryonie expérimentale; l'orientation des embryons. (Aves)
 e Polyembryonie expérimentale. (Salmonidae, Teleostei) (avec Y. LUTZ-OSTERTAG)
 f Action des ultra-sons sur l'embryon et sur différents organes. *Gallus spec.* (Aves) (avec Y. LUTZ-OSTERTAG)
 g Action des pesticides sur le développement de l'embryon. (Aves)
 h Free-martinisme spontané. (Aves) (avec Y. LUTZ-OSTERTAG)
 LUTZ (OSTERTAG), Ms. Y.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
 a La genèse de l'asymétrie du tractus génital et la régression des canaux de Müller par la méthode d'explantations. *Gallus spec.* (Aves)
 b Rôle des hormones dans la différenciation primaire du sexe. *Gallus spec.*, *Coturnix coturnix* (Aves)
 c Polyembryonie expérimentale. (Salmonidae, Teleostei) (avec H. LUTZ)
 d Action des ultra-sons sur l'embryon et sur différents organes. *Gallus spec.* (Aves) (avec H. LUTZ)
 e Culture in vitro du blastoderme. (Aves) (avec H. LUTZ)
 f Free-martinisme spontané. (Aves) (avec H. LUTZ)
 g Hybridation. *Anas spec.* (Aves)
 h Action des pesticides sur le développement de l'embryon. (Aves)
 LY THI Ba, Ms.; Dr. – Lab. de Bot., Fac. de Pharm. Paris-Sud, rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France
 a Comparative embryogenesis and phylogenetic relations. (Ranales; Helobiae)
 b Scanning electron microscopy of embryogenesis. *Potamogeton spec.* (Helobiae), *Helleborus spec.* (Ranales)
 c Experimental embryogenesis: callus formation and development, embryo formation. *Potamogeton spec.* (Helobiae), *Myosurus spec.*, *Delphinium spec.*, *Actaea spec.* (Ranales)
 LYON, Ms. M. F.; Sc.D. – MRC Radiobiol. Unit, Didcot, HARWELL, OX11 0RD, England
 a Developmental genetics of mutant genes; X-chromosome inactivation; experimental chimaeras. *Mus musculus* (Rodentia)
 McAVOY, J. W.; Ph.D. – Nuffield Lab. of Ophthalmol., Univ. of Oxford, Walton St., OXFORD, England
 a Patterns of cell division and alpha, beta and gamma crystallin synthesis during development and growth of the lens. *Rattus spec.* (Rodentia)
 McGEADY, T. A.; Prof. – Dept. of Vet. Anat., Univ. Coll., DUBLIN, Ireland
 McGOVERN, P. T. – Dept. of Anat., Royal Vet. Coll., LONDON NW1 OTU, England
 MÁCHA, J.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
 McKENZIE, J.; M.D. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
 a The metabolic characteristics of different tissues in the early embryo. *Gallus gallus* (Aves)
 b The effects of exogenous RNA on the early embryo and cell cultures. Same species as a
 c Myoblast/fibroblast relationships in monolayer cultures. Same species as a
 d The state of cell differentiation in early embryos. Same species as a
 e Growth and differentiation in vitro of heart muscle. Same species as a
 McLAREN, Anne; Ph.D. – MRC Mammal. Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
 a Influence of genotype and early embryonic environment upon development, investigated by in vitro cultivation of early embryos. *Mus musculus* (Rodentia)
 b Blastocyst-uterine interactions during the early stages of implantation, and during physiological and experimental delay of implantation. Same species as a
 c Sexual differentiation and origin of coat colour patterns in experimental chimaeras formed from aggregation of embryos of different genotype. Same species as a
 d Growth and differentiation of trophoblast in vivo and in vitro. Same species as a
 McLEAN, J. M.; M.D. – Anat. Dept., The University, MANCHESTER M13 9PL, England
 a Development of immunological mechanisms in the foetus. (Mammalia)

- b Immunology of the maternal-foetal relationship. (Mammalia)
 MacLEAN, N.; Ph.D. – Dept. of Biol., Univ., SOUTHAMPTON SO9 5NH, England
- a Developmental changes in haemoglobin, and the control of its synthesis. *Xenopus laevis* (Anura), *Mus musculus*, *Rattus spec.* (Rodentia), *Gallus domesticus* (Aves)
- b Chromatin activation and repression during development.
 McMASTER, G.; Lic.biol. – Inst. Suisse de Rech. Exp. sur le Cancer, Unité de Biol. du Dével., ch.Boveresses, 1066 EPALINGES, Switzerland
- a Quantitation of total DNA, RNA and proteins, and characterization of cytoplasmic polyadenylated mRNAs in stage 1-13 blastoderm. *Gallus gallus* (Aves) (with S. P. MODAK)
 MacMILLAN, G. J.; Ph.D. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
- a Control of pigment pattern formation: interactions among chromatoplasts and between these cells and their surrounding tissues (transplantation; tissue culture; wild-type and mutant albino periodical). *Xenopus laevis* (Anura)
- b Determination of neural crest cells. Same species as a
 MADEN, M.; B.Sc. – Devl. Biol. Group, Sch. of Biol. Sci., Univ. of Sussex, BRIGHTON BN1 9QG, England
- MÄDER, M.; Dr. – Bot. Inst., Univ. Heidelberg, Hofmeisterweg 4, 69 HEIDELBERG, B.R.D. (Germany)
- a Enzymatic differentiation of tissue in whole plants, tissue cultures and protoplasts; localisation of peroxidases during cell development. *Nicotiana tabacum* (Solanaceae)
 MADJEREK, Z. S.; Dr., Prof. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Experimental studies on genito-urinary tract development. *Mus spec.* (Rodentia)
- b Influence of fetotoxic and teratogenic agents on decidual reaction. *Rattus spec.* (Rodentia)
 MAEHR, R.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Characterization of chromatin. *Chironomus spec.* (Diptera)
- b Ion sensitive gene activation of polytene salivary gland nuclei determined by RNA and protein synthesis. *Chironomus thummi*, *C. tentans* (Diptera)
 MAISONHAUTE, C. – Lab. de Zool., Univ. de Paris XI, Centre d'Orsay, 91405 ORSAY, France
- a Effect of alpha-amanitin in early embryogenesis (cleavage till early gastrula). *Leptinotarsa decemlineata* (Coleoptera)
 MAJORCA (MONTELEONE), Ms. A.; Dr.Sci. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- MÄKINEN (LÖNNBERG), Ms. P.-L.; M.Sc. – Dept. of Forensic Med., Univ. of Turku, Kiinamyllynkatu 10, 20520 TURKU 52, FINLAND
- a Biochemical characterization of enzymes appearing in early wound healing. *Rattus spec.*, *Cavia spec.* (Rodentia) (with J. RAEKALLIO)
- c Biochemistry of vascular response in experimental wound healing. Same species as a, and *Homo sapiens* (Primates) (with J. RAEKALLIO)
 MALAPRADE, Ms. D. – Lab. d'Embryol., Univ. de Nancy I, B.P.1080, 54019 NANCY Cedex, France
- a Fonction hypophysaire somatotrope au cours de la vie foetale et néonatale. *Homo sapiens* (Primates)
- MALCHOW, D. W. H.; Ph.D. – Biozentrum der Univ. Basel, Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Chemotaxis and aggregation; solubilization and function of receptor. *Dictyostelium discoideum* (Acrasiales)
- MAŁECKA, Ms. J. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka St.52, 31-044 KRAKÓW, Poland
- MALET, P.; M.D., Prof. – Lab. d'Histol.-Embryol.-Cytogénét., Fac. de Méd., B.P.38, 63001 CLERMONT-FERRAND Cedex, France
- a Morphogenesis and cytochemistry of perinatal and adult myocardium in cell culture; pharmacological study. *Rattus spec.* (Rodentia)
- b Chromosome ultrastructure. *Homo sapiens* (Primates)
 MALIKOVA, Ms. I. G. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St.5, LENINGRAD 199164, U.S.S.R.
- a Restoration processes at different stages of ontogenesis. *Dinophilus spec.* (Archannelida), *Pygospio elegans* (Polychaeta)
- MALININA, Ms. N. A.; Cand.biol.sci. – Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of USSR, Profsojuznaya St.7 (I), MOSCOW 117312, U.S.S.R.
- a Developmental study of mutant gene effects on lens crystallins. *Mus musculus* (Rodentia)
 MANCINO, G.; Dr.Biol., Prof. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy
- a Development and functionality of the gonads in hybrids. *Triturus spp.* (Urodela)
- b Lampbrush chromosomes. Same species as a
- c Chromosomal aspects of oogenesis. (Nudibranchia, Gastropoda)
 MANCUSO, V.; D.Sc., Prof. – Ist. di Biol. Gen., Univ. di Palermo, Via Divisi 83, 90133 PALERMO, Italy
- a Histochemistry and ultrastructure of oogenesis and embryology. (Asciidae) (with M. GIANGUZZA and G. DOLCEMASCOLO)
 MANDARON, P. M.; D.Sc. – Lab. de Zool., Dépt. de Biol., Univ. Sci. et Méd. de Grenoble, B.P.53, 38041 GRENOBLE, France

- a Mechanisms of evagination and differentiation of imaginal discs in different culture media.
Drosophila melanogaster (Diptera)
 b Effect of ecdysteroids on DNA, RNA, and protein synthesis in in vitro cultured imaginal discs.
 Same species as a
 c Cell culture of imaginal discs. Same species as a
 d Scanning electron microscopy of cell surface modifications during in vitro evagination of imaginal discs. Same species as a
 e Microcinematography of in vitro evagination of the discs. Same species as a
 f Protein synthesis during in vitro development of imaginal discs (electrophoresis). Same species as a
MANDEL, P.; Prof. – Ctr. de Neurochim., C.N.R.S., 11 rue Humann, 67085 STRASBOURG Cedex, France
MANDYSOVÁ, Ms. E.; M.D. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
 a Differentiation of small intestine epithelium during the last days of fetal development (electron microscopy). *Rattus* spec. (Rodentia)
MANELLI, H.; Ph.D., Prof. – Ist. di Zool. “F. Raffaele”, Univ. di Roma, Viale dell’Università 32, 00161 ROMA, Italy
MANFREDI ROMANINI, Ms. M. G.; Ph.D., Prof. – Inst. of Histol., Embryol., and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
 a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). *Rattus rattus* (Rodentia)
 b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
MAŃKOWSKA, Ms. E.; Mgr. – Lab. of Exp. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
 a The effect of petroleum derivatives, especially xylene, on pregnancy. *Rattus* spec. (Rodentia)
 b The effect of single free amino acids on pregnancy. Same species as a
MANN, S. L.; M.B., Ch.B. – Dept. of Anat., Med. Sci. Inst., Univ. of Dundee, Hawkhill, DUNDEE DD1 4HN, Scotland, U.K.
 a Cell population and dynamics of developing nucleus habenularis (diencephalon). (Rodentia)
MANN, T. R. R.; M.D., Ph.D., D.Sc., Prof. – A.R.C. Unit of Reprod. Physiol. and Biochem., Anim. Res. Stat., 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
MANNING, Ms. M. J.; Ph.D. – Dept. of Zool., Univ. of Hull, HULL HU6 7RX, England
 a Maturation of immunocompetence correlated with development of the lymphoid tissues: removal of the thymus and exposure to antigenic stimulation (allografts, protein antigens, etc.) at different larval stages; in vitro studies of the immunological capabilities of lymphocytes. *Xenopus laevis* (Anura)
MANSUETO (BONACCORSO), Ms. C.; Dr.nat.sci., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
 a Investigations on embryonic development by use of radio-isotopes. *Ciona intestinalis* (Asciidae)
 b RNA synthesis in egg development. *Ciona intestinalis*, *Ascidia malaca*, *Clavellina lepadiformis* (Asciidae)
 c Egg stimulation by ionophore. Same species as a
MANUKHIN, B. N.; Dr.biol. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R.
 a Uptake of neurotransmitters by early embryos. (Echinoidea)
MARAUD, R.; D.Méd., D.Sc., Prof. – Lab. d’Histol. et d’Embryol., Univ. de Bordeaux II, 146 rue Leo-Saignat, 33076 BORDEAUX Cedex, France
 a Differentiation of the genital tract. *Gallus gallus* (Aves)
 b Physiology of the embryonic thyroid. Same species as a
MARCEL, R.; D.Sc. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D’ASCQ, France
 a Biochemistry of trophic factor and specific inhibitor of cephalic and caudal regeneration. *Eisenia foetida* (Oligochaeta)
 b Ultrastructure of nerve cells during regeneration. Same species as a
 c Immunofluorescence of factors governing morphogenesis. Same species as a
MARCHAL-SEGUAULT, Ms. D. – Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d’Orsay, Bât.442, 91405 ORSAY, France
 a Effects of organochlorine and organophosphorus insecticides on development and metamorphosis. *Bufo bufo*, *Xenopus laevis* (Anura)
MARCHAL, L.; Biol.CNRS – Lab. de Biol. Méd., Univ. de Nancy I, B.P.1080, 54019 NANCY Cedex, France
 a Histonégèse des cellules B du pancréas. *Rattus norvegicus* (Rodentia)
MARCHAND, C. R.; Dr. 3e Cycle – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France
 a Histophysiology des testicules et de l’hypophyse des hybrides intergénériques stériles comparée à celle des canards fertiles. *Cairina moschata*, *Anas platyrhynchos* (Aves) (avec L. GOMOT)
MARILLEY, Ms. M. – Lab. d’Histol. et Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 rte Léon Lachamp, 13288 MARSEILLE Cedex 2, France
 a DNA synthesis in regenerating tissue: 1. control; 2. release in previously quiescent cells; 3. variations in DNA polymerase activity during regeneration. *Owenia fusiformis* (Polychaeta)
MARIN (LEWIN), Ms. L.; D.Sc. – Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49 bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

- a Morphogenèse du poumon: 1. déterminisme de la maturation des structures spécifiques de l'épithélium (ultrastructure); 2. évolution du métabolisme du tissu pulmonaire (biosynthèse des lipides, activité enzymatique). *Gallus gallus* (Aves), *Rattus spec.* (Rodentia) (avec F. DAMERON)
MARINELLI, Ms. M.; Dr. — Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy
 a Ultrastructure of the cocoon. *Dugesia lugubris* (Turbellaria)
 b Action of antiandrogens on the ultrastructure of male genital organs. *Cavia porcellus* (Rodentia)
 c Action of magnetic field on regeneration. Same species as a
MARINI, Ms. M.; Dr.Biol. — Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
 a Growth and differentiation of the subcommissural organ. *Gambusia spec.*, *Jordanella spec.* (Teleostei)
 b Differentiation of the dorsal cells in the spinal cord. *Crenilabrus spec.*, *Hippocampus spec.* (Teleostei)
 c Neurosecretion during development. Same species as a
MARKENS, I. S.; Dr. — Orthodont. Dept., Dent. Sch., State Univ. of Utrecht, Sorbonnelaan 16, "de Uithof", UTRECHT, Netherlands
 a Experiments on persistence of cranial sutures till old age; possible causes: bone movements or sutural tissue properties (transplantation of bone into suture). *Rattus norvegicus* (Rodentia) (with H. A. J. OUDHOF)
MARKOVA, Ms. L. N. — Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R.
 a The products of enzymic deamination of serotonin and catecholamines as potential regulators of cleavage divisions. *Strongylocentrotus nudus*, *S. intermedius* (Echinoidea) (with G. A. BUZNIKOV)
MARRARO (CARNAZZA), Ms. M. L. — Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
 a Structural changes of allantoic membrane epithelium submitted to the action of different agents. *Gallus domesticus* (Aves)
 b Pineal gland homoplastic graft in chorioallantoic membrane. Same species as a
MARSHAK, Ms. T. L. — Lab. of Developm. Cytogenet., Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R.
MARSTON, J. H.; Ph.D., MRCVS — Dept. of Anat., Med. Sch., Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
 a Peri-implantation development and physiology including embryo transfer. *Macaca mulatta* (Primates)
 b Control of ovulation. *Macaca mulatta*, *Homo sapiens* (Primates)
MARTELLY, Ms. I.; Dr. 3e Cycle — Lab. de Biol. Anim., Univ. Paris XII (Val de Marne), av. du Gén. de Gaulle, 94000 CRÉTEIL, France
 a Quantitative and qualitative study of RNA and protein synthesis during regeneration; mechanisms of their activation. *Planariidae* (Turbellaria)
MARTHY, H.-J.; Ph.D. — Lab. Arago, Univ. de Paris VI, 66650 BANYULS-sur-Mer, France
 a Determination, regulation, localization, and stability of primordial pattern. *Loligo vulgaris* (Cephalopoda)
MARTIN (FORGET), Ms. C.; D.Sc. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
 a Origin of erythropoietic stem cells studied in interspecific chimeras. *Gallus gallus*, *Coturnix c. japonica* (Aves)
MARTIN, G. — Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
 a Contrôle neurohumoral de la différenciation sexuelle et de la mue. (Isopoda, Crustacea)
 b Nauplius eye of embryos. (Oniscoidea, Isopoda)
MARTIN, R. P.; Dipl. d'Etud.Approf. — Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
 a Renouvellement et différenciation des cellules de l'épithélium intestinal. *Ambystoma mexicanum* (Urodela)
MARTÍNEK, J.; M.D. — Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
 a Cytochemistry and electron microscopy of ova. *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
 b Fine structure of the blastocyst; the role of nucleoli in early differentiation of blastodermic vesicle. Same species as a
MARTINOVITCH, P. N.; Ph.D. — Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. "Boris Kidrič", P.O.Box 522, 11001 BEOGRAD, Yugoslavia
MARTY, R. J. L.; Dr.Méd., Dr.Sci., Prof. — Lab. de Neurophysiol., Univ. des Sci. et Tech. du Languedoc, Place E. Bataillon, 34060 MONTPELLIER Cedex, France
 a Neurophysiologie. 1. Maturation périnatale du système auditif (stimulation électrique de la cochlée; stimulation tonale). 2. Maturation postnatale du système vestibulaire. 3. Involution expérimentale et plasticité du système auditif. *Felis catus* (Carnivora), *Oryctolagus cuniculus* (Lagomorpha)
 b Neuroanatomie. 1. Maturation périnatale du cortex cérébral: synaptogénèse. 2. Prolifération et migrations postnatales de la névroglié. 3. Dégénérescence postnatale du tractus optique et gliose réactionnelle. *Rattus norvegicus*, *Felis catus* (Mammalia)

- MASTROLIA, Ms. L.; Dr.biol.sci. – Ist. di Zool. “Federico Raffaele”, Viale dell’Università 32, 00161 ROMA (7), Italy
- MATEJKÁ, M.; Dr.Med., C.Sc. – Inst. of Histol and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEN, Czechoslovakia
- a Morphogenesis of the genital organs from an evolutionary standpoint. (Amniota, incl. Homo sapiens)
- MATO, J. M.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Role of cyclic nucleotides during chemotaxis. *Dictyostelium spec.* (Acrasiales)
- MATUŠEWSKI, B.; Ph.D. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
- a Oogenesis. (Cecidomyiidae, Diptera), (Scarabeidae, Coleoptera)
- b Extrachromosomal DNA and its role in oogenesis. (Staphylinidae & Gyrinidae: Coleoptera)
- MAUCHAMP, B. L.; Ing. – Lab. de Zool., École Norm. Supérieure, 46 rue d’Ulm, 75230 PARIS Cedex 05, France
– INA Paris-Grignon, Centre Grignon, 78 THIVerval-Grignon, France
- a Hormonal control of wing imaginal disc development. *Pieris brassicae* (Lepidoptera)
- b Biochemistry of diapause. Same species as a
- c Ultrastructural aspects of scale development. Same species as a
- MAUGER (GIRARD), Ms. A.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France
- a Role of spinal cord in feather morphogenesis; cutaneous nerve supply; neurotaxis. *Gallus domesticus* (Aves)
- b Morphogenetic role of early somitic mesoderm in limb bud differentiation. Same species as a
- c Origin of limb muscles. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- d Scanning electron microscopy of the epidermis during feather morphogenesis. Same species as a
- e Microcinematography of skin cells cultured in vitro. Same species as a
- MAYER, R. J.; Ph.D. – Dept. of Biochem., Univ. Hosp. Med. School, Clifton Blvd., NOTTINGHAM NG7 2UH England
- a Turnover of lipogenic enzymes and casein during hormonally stimulated mammary gland differentiation and in adipose tissue in vitro. *Oryctolagus cuniculus* (Lagomorpha), *Ovis aries* (Artiodactyla)
- b Studies on mitochondrial enzyme turnover (cytochrome oxidase and monoamine oxidase) in regenerating liver and in neonatal development. *Rattus spec.* (Rodentia)
- MAYS, U.; Dr.rer.nat. – Zool. Inst. der Univ., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)
- a RNA transport in the egg follicle, especially in meroistic ovaries (radioisotopes, electron microscopy). *Pyrrhocoris apterus* (Heteroptera)
- MAZABRAUD, A.; Dr. 3e cycle – Centre de Génét. Moléc. du CNRS., 91190 GIF-sur-YVETTE, France
- a Mécanismes biochimiques de l’oogenèse. *Xenopus laevis* (Anura)
- MAZHUGA, P. M.; Dr.Biol., Prof. – Dept. of Cytol. and Histogen., Inst. of Zool., Acad. of Sci. of the Ukraine, Vladimirskaya St.51/53, Apt.89, 252003 KIEV, U.S.S.R.
- a Principles of genesis, and cytological peculiarities of some derivatives of mesenchyme: the peculiarities of endochondral and perichondral osteogenesis. Domestic and laboratory animals (Mammalia), *Homo sapiens* (Primates)
- b Onto- and phylogenesis of the blood-vascular trunks of the extremities. Same species as a
- c Development of the blood-vascular bed of the joint capsule. Same species as a
- d Histogenesis of blood vessels; comparative hemopoiesis. Same species as a
- e The structural and functional differentiation of cells in chondrogenesis and osteogenesis. (Mammalia)
- f Utilization of cells and matrix substances during enchondrial osteogenesis (autoradiography, histochemistry, electron microscopy). *Oryctolagus cuniculus* (Lagomorpha), *Rattus spec.* (Rodentia)
- g Osteoblast sources in periosteal and endochondral osteogenesis (autoradiography, cytophotometry, electron microscopy)
- h Blood capillaries and reticulo-endothelial system of the bone marrow (cytology, electron microscopy, tissue culture, autoradiography, cytophotometry)
- i Structural mechanisms of endochondral process (histology, histochemistry, autoradiography)
- j Transformation of blood capillaries into sino-capillary system of the bone marrow (cytology, histology)
- MAZZUCCO, K.; Dr.phil. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, 1090 WIEN, Austria
- a Influence of collagen on cell proliferation and differentiation. (Rodentia)
- MEER, J. M. van der; Drs. – Dept. of Zool., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Normal development. *Callosobruchus maculatus* (Coleoptera)
- b Pattern formation: role of special ooplasmic regions in the spatial and temporal differentiation of blastoderm cells; underlying molecular mechanisms. Same species as a
- MEINIEL (BOUTRON), Ms. A.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Embryonic development of the pineal gland (electron microscopy, Falck and Hillarp method, autoradiography). (Reptilia; Aves; Mammalia)
- b Parapineal organ (same methods as a). *Lampræta planeri* (Cyclostomata).
- MEINIEL, R.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
- a Effect of anticholinesterasic properties of organophosphate insecticides on morphogenesis (light

- a and electron microscopy, histochemistry). *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- b Embryotoxic effect of parathion on biogenic amines (catecholamines) and glycogen (histochemistry, electron microscopy) *Gallus domesticus* (Aves)
- c Biochemistry of cholinesterases during induction and prevention of axial teratogenesis. (Aves)
- MEISTER, Ms. G.; Dr. – Zool. Inst. der Westf. Wilhelms Univ., Hüfferstr. 1, 4400 MÜNSTER, B.R.D. (Germany)
- a Ultrastructure of embryonic blood cells (vacuolized round cells). *Loligo vulgaris* (Cephalopoda)
- b Scanning electron microscopy on the radula of late embryo and newly hatched larvae. *Loligo vulgaris*, *Sepia officinalis*, *Eledone cirrosa* (Cephalopoda)
- MELEHOVA, Ms. O. P.; Cand.scient. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Processes involving free radicals in normal and pathological development. *Rana temporaria*, *R. esculenta* (Anura) and other Vertebrata
- MELLER, K.; Dr.med., Prof. – Inst. für Anat.I, Arb.gr. für Exp. Cytol., Ruhr-Univ., Universitätsstr. 150, MA 5/46, Postfach 102148, 463 BOCHUM, B.R.D. (Germany)
- a Development of retina and central nervous system, especially cerebral cortex and cerebellum (electron microscopy, autoradiography, tissue culture). *Gallus domesticus* (Aves), *Mus musculus* (Rodentia)
- b Protein synthesis of differentiating nerve cells (autoradiography). *Gallus domesticus* (Aves)
- c Cell aggregation, cell differentiation, and synaptogenesis in the central nervous system (tissue culture, transmission and scanning electron microscopy, freeze-etching, autoradiography). Same species as a
- MENKES, B.; Dr.med., Prof. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bd. Mihai Viteazul 24, 2900 TIMIȘOARA, Rumania
also: Dept. of Med. Biol., Med. Biol., Med. School, P-ța 23 August 1, 1900 TIMIȘOARA, Rumania
- a The role of normal and experimentally induced necrosis in teratogenesis
- b Cinematographical studies on growth and differentiation processes of the embryonic axial organs. *Gallus domesticus* (Aves)
- c The influence of exogenous factors on embryonic development; prenatal pathology. Same species as b
- d Organogenesis in the embryo. *Homo sapiens* (Primates)
- e Development of cerebral vesicles. Same species as b
- MERCIER (PAROT), Ms. L.; Dr.Sci. – Lab. d'Embryol., U.E.R. Bioméd., 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
- a Térotogénèse par sulfamides hypoglycémiants, antimétabolites. *Rattus spec.* (Rodentia) (avec H. TUCHMANN-DUPLESSIS)
- b Influence de la cortisone sur la gestation et le développement foetal. Même espèce comme a
- c Influence des alcaloides du Rauwolfia, de la réserpine et de la déséropidine sur le développement. Même espèce comme a (avec H. TUCHMANN-DUPLESSIS)
- d Influence des neuroleptiques sur les malformations congénitales. *Rattus spec.*, *Mus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- e Diabète expérimental et grossesse. (Mammalia)
- f Influence des antimitotiques, des anticonvulsants et de la prostaglandine F_{2α} sur la gestation. Même espèce comme d (avec H. TUCHMANN-DUPLESSIS)
- g Mécanismes d'action de substances embryotoxiques (transfert d'oeufs). (Rodentia) (avec C. ROUSSEL)
- MERKER, H.-J.; Dr.med., Prof. – Anat. Inst. der Freien Univ. Berlin, Kön.-Luise-Str. 15, 1 BERLIN 33, B.R.D. (Germany)
- MERKLE, U.; Dr.med., Prof. – Anat. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 91, 8520 ERLANGEN, B.R.D. (Germany)
- a Spermatogenese und Sertoli-Zellen. *Rattus spec.* (Rodentia)
- MESHCHERYAKOV, V. N.; Cand.scient. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Spatial organization of spiral cleavage: symmetry; nature of cell contacts; spindle-cortex interactions. *Lymnaea stagnalis*, *Physa spp.*, *Aplexa hypnorum*, *Radix peregra* (Gastropoda)
- b Shell morphogenesis: correlation with cleavage asymmetry. *Lymnaea stagnalis*, *Physa acuta* (Gastropoda)
- c Long-term culture of embryos with vitelline membranes removed. *Lymnaea stagnalis* (Gastropoda)
- d Glycerinated models of eggs. Same species as c
- MESSAGE, M. A.; Ph.D. – Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Development of muscle, primarily with histochemical techniques. *Xenopus laevis* (Anura), *Mus musculus*, *Rattus norvegicus* (Rodentia)
- b Development of tissue culture techniques for study of myogenesis.
- c Computer simulation of organogenesis with particular reference to limbs
- MESTRE, J.-C.; Prof. – Lab. de Biol. Cell., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France
- a Morphology and physiology of embryoids originating from callus. (Angiospermae)
- b Physiological and morphological relations of the embryo with its surroundings during development *in situ*. (Angiospermae)
- MESTRES, P.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM 1, B.R.D. (Germany)

- a Development of the pituitary. *Rattus norvegicus* (Rodentia)
 b Influences of hormones and drugs on neurogenesis and sexual differentiation of the hypothalamus (transmission and scanning electron microscopy, histochemistry). Same species as a
 c Cell arrangement and cell contacts in early stages of development; cytochemistry of the cell surface. *Gallus gallus* (Aves)
METAFORA, S.; Dr. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, 80072 ARCO FELICE (Napoli), Italy
MEUSY, J. J.; Dr. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
 a Electrophoresis and immunochemistry of the female specific protein: vitellogenin. *Orchestia gammarellus* (Amphipoda, Crustacea)
 b Androgenic hormone (Crustacea)
MGLINETZ, V. A.; Dr. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.
 a Determination of imaginal disc cells in normal and mutant strains. *Drosophila melanogaster* (Diptera)
 b Interaction of homoeotic and non-homoeotic genes during development. Same species as a
 c Temperature sensitivity of homoeotic and non-homoeotic mutants. Same species as a
 d Pleiotropy of homoeotic genes. Same species as a
MICHAEL, Ms. P.; B.Sc., M. (phil) – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
 a Origin and migration of primordial germ cells studied in xenoplastic recombinates of urodelean and anuran blastulae. *Triturus alpestris*, *Ambystoma mexicanum* (Urodea), *Xenopus laevis*, *Bombina orientalis*, *Discoglossus pictus*, *Rana lessonae*, *R. pipiens* (Anura)
MIDDLETON, C. A.; B.Sc. – Dept. of Zool. and Comp. Anat., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
 a Locomotion and behaviour of epithelial cells in tissue culture. *Gallus gallus* (Aves), *Mus musculus* (Rodentia)
MIKHAÏLOV, A. T.; Cand.biol.sci. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St.26, MOSCOW 117334, U.S.S.R.
 a Developmental and biochemical studies on the inductive capacities of the retina during embryogenesis. *Rana temporaria* (Anura), *Gallus domesticus* (Aves)
 b Biochemistry and immunochemistry of the retinal protein structure during optic cup formation. *Gallus domesticus* (Aves)
 c Immunochemistry of certain lens proteins in adults and embryos. *Scylliorhinus canicula* (Elasmobranchii), *Rana temporaria* (Anura), *Gallus domesticus* (Aves)
MIKULSKA, Ms. I.; D.Sc., Prof. – Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87-100 TORUŃ, Poland
 a Teratogenesis caused by abnormal temperature. (Araneae, Arachnida)
 b Gametogenesis. *Tegenaria atrica* (Araneae, Arachnida)
MILAIRE, J.; M.D., Prof. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 rue aux Laines, 1000 BRUXELLES, Belgium
MILANO-GRASSI, Ms. E.; Dr.biol.sci. – Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA (7), Italy
MILKOVIĆ (ŽULJ), Ms. K.; Ph.D., Prof. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
 a Development and function of the pituitary-adrenocortical system in foetus and neonate (biochemistry, histology, histochemistry). *Rattus norvegicus* (Rodentia) (with R. KLEPAC, M. PERUZOVIĆ and J. PAUNOVIĆ)
 b Effects of perinatal influences, especially adrenocorticoids, on emotionality, active and passive avoidance conditioning. Same species as a (with M. PERUZOVIĆ and J. PAUNOVIĆ)
MINGANTI, A.; Dr., Prof. – Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
 a Effects of cholinesterase inhibitors on development (Asciidiacea; Echinoidea)
 b Acetylcholine receptors in eggs and early embryos. Same species as a
MIRCOV, Ms. O.; M.D. – Dept. of Med. Biol., Med. School, P-ța 23 August 1, 1900 TIMIȘOARA, Rumania
 a Development of facial primordia. *Gallus domesticus* (Aves)
 b Teratogenesis
MISCHKE, D.; Dipl.Biol. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
 a Isolation and characterization of chromosome-sized Y DNA from eye-antenna-discs. *Drosophila hydei* (Diptera)
 b Processing of ribosomal RNA from testes. Same species as a
MITASIOV, V. I.; Cand.biol.sci. – Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a Cytological changes in pigment epithelium cells in the course of their transformation into neural retina during eye regeneration: RNA and DNA synthesis, cell cycles, the synthesis of general and specific protein products. *Triturus cristatus*, *T. vulgaris*, *Pleurodeles waltlii* (Urodea)
 b Regeneration of the neural retina with special reference to S-100 protein. *Triturus cristatus* (Urodea) (with L. I. KOROCHKIN and S. M. SVIRIDOV, Novosibirsk)
 c Development of regional differences in neural retina and pigment epithelium (synthesis of DNA, RNA). *Acipenser stellatus*, *A. güldenstädti* (Chondrostei) (with O. G. STROEVA and E. A. BABURINA)

- MITOLO, V.; M.D. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy
- a Changes of spinal ganglia and spinal cord after increase or decrease of the peripheral field of innervation. *Gallus domesticus* (Aves)
 - b Growth models, a general study
 - c Computer simulation of growth and morphogenesis of the limb buds. Same species as a
 - d Growth of spinal cord. Same species as a
- MITSKEVICH, M. S.; Dr.Biol., Prof. – Inst. of Developm. Biol., Acad. of Sci. of the U.S.S.R., Vavilov St. 26, 117334 MOSCOW, U.S.S.R.
- a Hypothalamic control of thyroid function in fetus and neonate. *Oryctolagus cuniculus* (Lagomorpha), *Cavia porcellus*, *Rattus spec.* (Rodentia)
 - b Influence of encephalectomy on adrenocortical and thyroid function in the fetus. Same species as a
- MOCQUARD, J.-P.; Dr. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
- a Etude statistique de la croissance et de la mue; action des facteurs externes sur les systèmes neuro-sécrétateurs. *Porcellio dilatatus*, *Ligia oceanica* (Isopoda, Crustacea)
 - b Recherches sur l'expression mathématique des lois de la croissance relative, plus particulièrement des organes soumis aux hormones sexuelles. Same species as a
- MOCZAR, Ms. M.; Ph.D. – Lab. de Biochim. du Tissu Conjonct., Univ. de Paris XII, 6 rue du Gén.Sarrail, 94000 CRÉTEIL, France
- a Glycoproteins of aorta muscle cell membranes and their interaction with extracellular macromolecules (collagen, proteoglycan, elastin); biosynthesis of these macromolecules in aorta; age changes in macromolecular interactions (organ and cell culture). *Oryctolagus cuniculus* (Lagomorpha), *Sus scrofa domesticus* (Artiodactyla)
 - b Regeneration of elastic tissue. *Canis familiaris* (Carnivora)
- MODAK, S. P.; Dr.Sci.Biol. – Inst. Suisse de Rech. Exp. sur le Cancer, Unité de Biol. du Dévél., ch.Boveresses, 1066 EPALINGES, Switzerland
- a Isolation and characterization of the nuclear and cytoplasmic non-mitochondrial DNA, synthesized during erythropoiesis. *Anas platyrhynchos* (Aves)
 - b Qualitative and quantitative changes in the genome during lens fiber cell differentiation
 - c Factors controlling de- and redifferentiation of cultured iris epithelial cells, studied by cell injection combined with immunofluorescence for gamma crystallin. *Notophthalmus viridescens* (Urodela) (with T. YAMADA)
 - d Quantitation of total DNA, RNA and proteins, and characterization of cytoplasmic polyadenylated mRNAs in stage 1-13 blastoderm. *Gallus gallus* (Aves) (with G. McMMASTER)
 - e Size of chromatin subunits in epithelial and fiber cell population of developing lens; characterization of various chromatin proteins. Same species as d (with D. W. APPLEBY)
- MODLINSKI, J. A.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak. Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Microsurgery of early embryos. *Mus musculus* (Rodentia)
 - b Fertilization and early development. Same species as a
- MOFFAT, D. B.; M.D., Prof. – Dept. of Anat., Univ. Coll., P.O.Box 78, CARDIFF CF1 1XL, Wales, U.K.
- a Postnatal development of kidney. *Rattus spec.* (Rodentia), *Homo sapiens* (Primates)
- MOHALLAL, M. E. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Enzyme histochemistry and ultrastructure of the placenta during development and effect of fetectomy and prostaglandins on placenta development. *Rattus norvegicus* (Rodentia)
- MOHR, H.; Dr.rer.nat., Prof. – Biol. Inst.II, Lehrst. für Bot., Univ., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)
- a Mechanism of phytochrome action at the level of phytochrome-mediated enzyme induction and enzyme repression, and its relation to development. *Sinapis alba* (Cruciferae)
- MOLEN, Ms. L. G. van der; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Changes in populations of organelles during cellular differentiation (E. M., cytochemistry, biochemistry). *Calliphora erythrocephala* (Insecta)
- MOLOTKOVA, Ms. L. F. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- MONESI, V.; M.D., Prof. – Inst. di Istol. ed Embriol. Gen., Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
- a RNA and protein synthesis in differentiating spermatozoa. *Mus musculus* (Rodentia)
 - b Somatic-germ cell interaction in spermatogenesis: biochemistry and function of Sertoli cells; germ cell-Sertoli cell culture. Same species as a
- MONK, Ms. M.; Ph.D. – MRC Mammal. Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
- a Simultaneous measurement of the activity of enzymes coded for by genes on the X-chromosome and on autosomes to determine whether or not both X-chromosomes are active during pre-implantation development. *Mus musculus* (Rodentia)
 - b Factors involved in the regulation of implantation, studied in a culture system. Same species as a
- MONNIER, M.; Dr. – Lab. d'Histophysiol. Végét., 12 rue Cuvier, 75005 PARIS, France
- a Development of the immature embryo cultivated in vitro. *Capsella bursa pastoris* (Cruciferae)
 - b Development of the mature embryo cultivated in vitro. *Phaseolus vulgaris* (Papilionaceae)
- MONROY, A.; M.D., Prof. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy

- a Physiology of fertilization. *Ciona intestinalis*, *Ascidia malaca*, *Phallusia mammillata* (Asciidae)
 b Control of cell division in the embryo; role of cell interactions. *Paracentrotus lividus*, *Sphaerechinus granularis* (Echinoidea)
- MOOLENAAR, W. H.; Drs. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
 also: Physiol. Lab., State Univ., Wassenaarseweg 62, LEIDEN, Netherlands
- a Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, *Mus musculus* (Rodentia) (with J. G. BLUEMINK, S. W. de LAAT, P. T. van der SAAG and S. A. NELEMANS)
- MOOR, R. M.; Ph.D. – A.R.C. Unit of Reprod. Physiol. and Biochem., Univ. of Cambridge, 307 Huntingdon Rd., CAMBRIDGE, CB3 0JQ, England
- MOORE, D.; Ph.D. – Dept. of Bot., Univ., MANCHESTER M13 9PL, England
- a Metabolic and enzymological studies of sporophore development, especially nitrogen metabolism and identification of enzyme regulatory events which can be related to specific aspects of morphogenesis. *Coprinus cinereus* (Fungi)
- b Mutants in genes determining enzymes known to be involved in sporophore morphogenesis (polymorphic variants and electrophoretic mapping). Same species as a
- MOORES, G. R.; Ph.D. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K.
- a Surface properties and behaviour of embryonic cells. *Gallus gallus* (Aves)
- MORATA, G.; Ph.D. – Sect. Devl. Genet., Inst. of Genet. CSIC, Ctr. of Molec. Biol., Univ. Autónoma de Madrid, Canto Blanco, MADRID 34, Spain
- a Heredity of determinative decisions in clones of imaginal disc cells. *Drosophila melanogaster* (Diptera)
- MOREAU, M.; Lic.Sci. – Stat. Biologique, place Georges-Teissier, 29211 ROSCOFF, France
- a Biophysical and biochemical membrane changes during meiosis reinitiation; analysis of maturation promoting factor (microinjection). *Xenopus laevis* (Anura), *Marthasterias glacialis* (Asteroidea)
- b Cell contacts during early embryogenesis. *Sphaerechinus granularis* (Echinoidea), *Patella vulgata* (Gastropoda), *Dentalium dentale* (Scaphopoda)
- MOREAU, Ms. N.; Dr. 3e Cycle – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivry, 67 rue M. Günsbourg, 94200 IVRY-sur-SEINE, France
- a Biosynthesis of endogenous proteins during oogenesis. *Pleurodeles poireti* (Urodea)
- MORGAN (WRIGHT), Ms. M.; Ph.D. – Dept. of Environm. Sci., Plymouth Polytechnic, Drake's Circus, PLYMOUTH PL4 8AA, England
- a Morphology and normal table from fertilization to hatching. *Salmo gairdneri* (Teleostei)
- b Effect of temperature on early development. Same species as a
- MORGAN, P. R.; B.Sc., B.D.S. – Dept. of Dent. Pathol., London Hosp. Med. Coll., Turner St., LONDON E1 2AD, England
- a Ultrastructure of the developing palate and early cleft palate. *Rattus spec.* (Rodentia)
- MORIN, Ms. J. – Lab. d'Histol.-Embryol., Fac. de Méd., Bd.Winston Churchill, B.P.38, 63001 CLERMONT-FERRAND Cedex, France
- a Light and electron microscopic studies of chromosomes after different treatments. (Mammalia)
- MORRIS, B.; Ph.D. – Dept. of Zool., Univ. of Nottingham, NOTTINGHAM, England
- a Antibody absorption by neonates. *Rattus norvegicus* (Rodentia)
- b Electron microscopy and physiology of postnatal gastric and intestinal development. Same species as a
- MORRIS, I. G.; Ph.D. – Dept. of Zool., Univ. Coll. of N. Wales, BANGOR, Caerns., Wales, U.K.
- a Transmission of serum proteins across foetal membranes and neonate gut. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- MORRISS, Ms. G. M.; Ph.D. – Dept. of Human Anat., Univ. of Oxford, South Parks Rd., OXFORD OX1 3QJ, England
- a Mechanisms of normal and abnormal development in early postimplantation embryos in vivo and in vitro. *Rattus spec.* (Rodentia)
- b Normal and abnormal development of neural tube, face and ear. Same species as a
- MOSNA, Ms. G.; Dr. – Ist. di Genet., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy
- a Attempts to obtain cells growing in a defined medium. *Drosophila melanogaster* (Diptera)
- b Cloning of established cells. Same species as a
- MOUTON, Ms. C.; D.E.A. – Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
- a Cytological aspects of posterior regeneration, autoradiography of DNA synthesis. *Allolobophora icterica* (Oligochaeta)
- MOUZE, M. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D'ASCQ, France
- a Étude descriptive de la croissance de l'oeil; étude expérimentale des facteurs morphogénétiques et hormonaux qui contrôlent cette croissance. *Aeshna cyanea*, *Anax imperator* (Odonata)
- MOYSE, J.; Ph.D. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.
- MRÁZKOVÁ (ŠEVČÍKOVÁ), Ms. O.; MUDr. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
- a Prenatal development of limb vascularisation, *Homo sapiens* (Primates)
- MUISWINKEL, W. B. van; Ph.D. – Dept. of Exp. Anim. Morphol. and Cell Biol., Agric. Univ., "Zodiac", Marijkeweg, WAGENINGEN, Netherlands
- a Time and place (organ) of origin of cell types involved in the immune response (plaque-test of Jerne, scale-transplantation, immuno-electrophoresis, histology, immunofluorescence, etc.).

- Cyprinus carpio, Barbus conchonius (Teleostei)
MULAREK, Ms. O.; M.D. – Inst. of Neurol. and Sensory Organs, Med. Acad., Przybyszewskiego St. 49, 60-355 POZNAŃ, Poland
- a Histochemistry of glia cells in the developing nervous system. *Rattus norvegicus* (Rodentia)
MÜLLER, Ms. F.; Dr.rer.nat. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASFL, Switzerland
- a Effect of LSD on development of the embryonic nervous system. *Mesocricetus auratus* (Rodentia)
- b Development of the dural arteries. *Homo sapiens* (Primates)
MÜLLER, J. P.; M.Sc. – Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivry, 67 rue M. Günsbourg, 94200 IVRY-sur-SEINE, France
- a Nuclear ribonucleoprotein particles in oocytes. *Pleurodeles poireti* (Urodea)
MÜLLER, M.; D.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Regulation of compensatory growth. *Rattus norvegicus* (Rodentia)
- b Experimental teratology. Same species as a (with C. HERMAN)
- c Genetic and environmental factors in development and foeto-placental complex. Same species as a (with C. HERMAN)
- MÜLLER**, W. A.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, B.R.D. (Germany)
- a Role of morphogens and neurotrophins in morphogenesis (metamorphosis, regeneration). *Hydractinia* spec., *Hydra* spec. (Hydrozoa), *Cassiopea* spec. (Scyphozoa)
- b Polar morphogenesis and RNA metabolism in early development. *Hydractinia* spec. (Hydrozoa)
- c Membrane ATPases and ion exchange in development (embryogenesis, metamorphosis). Same species as b
- d Factors releasing settlement and metamorphosis. (lower Invertebrata, especially Coelenterata)
- MULNARD**, J. G.; M.D., Prof. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 rue aux Laines, 1000 BRUXELLES, Belgium
- MUÑOZ CUEVAS**, A. – Lab. Souterrain du C.N.R.S., 09410 MOULIS, France
- a Différenciation, régression et ultrastructure des yeux. *Ischyropsalis* spec. (Phalangida, Arachnida)
- MUNTZ (REID)**, Ms. L.; Ph.D. – Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England
- a Comparative studies on the structural development of nerves and muscles. *Xenopus laevis*, *Eleutherodactylus martinicensis*, *Rana temporaria* (Anura), *Triturus* spec. (Urodea)
- b Electron microscopy of muscle development and degeneration. Same species as a
- MURASHOVA**, Ms. A. I. – Lab. of Embryol., Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- MURBACH**, Ms. V. E.; Lic.Phil.II – Zahnärztl. Inst., Abt. Orale Strukturbiol., Univ. Zürich, Plattenstrasse 11, 8028 ZÜRICH, Switzerland
- a Development of oral tissues, especially tooth papilla, pulp and mucous membrane (microscopy, stereology, 3-dimensional reconstructions). *Homo sapiens* (Primates)
- MUSY**, J. P.; M.D. – Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérrolles, 1700 Fribourg, Switzerland
- a Cytophotometry on embryonic fibroblasts: DNA content as a function of oxygen concentration. *Gallus domesticus* (Aves)
- MUTOLO**, V.; M.D., Prof. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Cell interactions in embryos. *Paracentrotus lividus* (Echinoidea)
- b Ribosomal and mitochondrial RNA synthesis in embryogenesis. Same species as a
- c RNA synthesis in regenerating liver, especially mitochondrial RNA. *Rattus* spec. (Rodentia)
- MYLVAGANAM**, R.; M.Sc. – Immunol. Unit, Dept. of Bacteriol., Univ. of Aberdeen, Foresterhill, ABERDEEN AB9 2ZD, Scotland, U.K.
- a Immunological aspects of insulin therapy in diabetic pregnancies. *Cavia porcellus* (Rodentia), *Homo sapiens* (Primates)
- MYSTKOWSKA-BACZKOWSKA**, Ms. E. T.; Dr.biol. – Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Medical Academy, Karowa 2, 00-315 WARSZAWA, Poland
- a Embryonic development. *Clethrionomys glareolus* (Rodentia)
- b Interspecific chimaeric embryos. *Mus musculus*, *Clethrionomys glareolus* (Rodentia)
- NAAKTGBOREN**, C.; Dr. – Dept. of Obstet. and Gynecol., Wilhelmina Gasthuis, Le Helmerstr. 104, AMSTERDAM, Netherlands
- a Electrophysiology of the uterus in the perinatal period, studied *in vivo*. *Canis familiaris* (Carnivora), *Ovis aries*, *Sus scrofa* (Artiodactyla), *Oryctolagus cuniculus* (Lagomorpha)
- c Psychogenetic influences on uterine physiology and fetal development. Same species as a
- NADAL**, Cl.; Dr. Méd., D.Sc. – Unité de Physiol. Cell., U22, INSERM, Inst. du Radium, Bâtiment 110, 91405 ORSAY, France
- a Substances regulating the number of hepatic cells during life and the regeneration after partial hepatectomy. *Rattus norvegicus* (Rodentia)
- b Hepatic polyploidy, its development during life and its control system. Same species as a
- c Appearance of a hepatocyte mitosis inhibiting system at the slowing down of the growth, characteristic of the transition towards the adult state. Same species as a
- NAGEL**, J.; D.Sc. – Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France
- a Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. *Rattus norvegicus* (Rodentia) (with R. L. JACQUOT, M. D. NAGEL and C. BILLAT)
- NAGEL**, Ms. M. D.; Dr. 3e cycle – Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France

- a Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. *Rattus norvegicus* (Rodentia) (with J. NAGEL, C. BILLAT and R. L. JACQUOT)
 NAGL, W., Dr., Prof. – Div. of Cell Biol., Dept. of Biol., Univ., P.O.Box 3049, 6750 KAISERSLAUTERN, B.R.D. (Germany)
- a Ultrastructural differentiation, and synthesis of DNA and RNA in the development of the oocyte and the ovarian nutritive tissue. *Gerris najas* (Heteroptera)
 b Autolysis of the embryonal suspensor (ultrastructure, cytochemistry). *Phaseolus coccineus* (Papilionaceae). *Tropaeolum majus* (Tropaeolaceae)
 NAMUR, Ms. P.; D.E.A. – Lab. d'Embryol., Dépt. de Biol.-Ecol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
- a Etude expérimentale de l'action d'antimétabolite au cours du développement précoce du germe. *Ambystoma mexicanum* (Urodea)
 NANDAKUMARAN, M.; M.Sc. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Placental transfer of betamimetics (in vitro perfusion). *Homo sapiens* (Primates)
 NARDI, Ms. I.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy
- a Mitotic and lampbrush chromosomes; DNA analysis and in situ RNA/DNA hybridization (Urodea)
 NARDI VILARDAGA, J. – Dept. of Anat., Univ. of Barcelona, C/Casanova 143, BARCELONA 11, Spain
- a Influence of extrinsic factors on joint development. (Aves)
 b Interaction between membranous and cartilaginous developing bones in vivo and in vitro. (Aves)
 NAVARATNAM, V.; Ph.D. – Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Ontogenesis of cholinesterase and mono-amine activity in cardiac innervation. (Mammalia). *Homo sapiens* (Primates)
 b Differentiation of sympathetic ganglia. *Rattus spec.* (Rodentia)
 NAYLOR, E.; Ph.D., Prof. – Dept. of Marine Biol., Univ. of Liverpool, PORT ERIN, Isle of Man, U.K.
- a Developmental aspects of behaviour. *Carcinus maenas*, *Callinectes sapidus*, *Macropipus spec.* (Decapoda, Crustacea)
- NEDVÍDEK, J.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Nucleic acids and subcellular particles in oogenesis and early development. (Amphibia) (with V. HABROVÁ)
 b Transplantation of nuclei in relation to nucleic acids and proteins. (Amphibia) (with F. SLÁDEČEK and A. ROMANOVSKÝ)
- NEEDHAM, A. E.; D.Sc. – Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
- a Review of regeneration and general metabolism
 NELEMANS, S. A.; Drs. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalaan 8, 3584 CT UTRECHT, Netherlands
- a Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, *Mus musculus* (Rodentia) (with J. G. BLUËMINK, S. W. de LAAT, P. T. van der SAAG and W. H. MOOLENAAR)
- NELLEN, W.; Dipl.Biol. – Inst. für Allgem. Biol. der Univ., Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Processing of genetic information; isolation of mRNA and in vitro translation systems. *Drosophila hydei* (Diptera)
 b Specific changes in ribosomal subunits depending on the method of isolation. Same species as a
- NELSON, L.; Fil.kand. – Dept. of Zoophysiol., Univ. of Umeå, 901 87 UMEÅ, Sweden
- a Mitochondrial differentiation during ontogenesis. *Xenopus laevis* (Anura)
- NETZEL, H. E. M.; Dr. – Inst. für Biol.III, Univ., Auf der Morgenstelle 28, 7400 TÜBINGEN, B.R.D. (Germany)
- a Shell formation: secretion and morphogenesis. *Arcella dentata*, *Centropyxis discoides*, *Difflugia oviformis* (Rhizopoda)
 b Cytomorphogenesis: division and regeneration of thecae; cyst formation. *Gonyaulax polyedra*, *Peridinium cinctum* (Dinophyceae)
- NEUBERT, J.; Dr.rer.nat. – Inst. für Flugmedizin der DFVLR, Kölnerstr. 70, 53 BONN-Bad Godesberg, B.R.D. (Germany)
- a Effect of simulated weightlessness on ultrastructure of the embryonic vestibular organ. (Anura) (with W. BRIEGLEB)
 b Teratogenic and genetic anomalies induced by simulated weightlessness (fast running clinostat). *Tribolium confusum* (Coleoptera) (with W. BRIEGLEB)
- NEUMANN, D.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Weyertal 119, 500 KÖLN 41, B.R.D. (Germany)
- a Timing of pupation and emergency by physiological clock mechanisms. *Clunio marinus* (Chironomidae, Diptera)
 b Growth and reproduction rate under the influence of photoperiod and daily fluctuations of temperature. *Chaoborus vitripennis* (Diptera), *Daphnia longispina* (Cladocera, Crustacea)
- NEVILLE, P. A. J.; Dr.d'Etat, Prof. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St.-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Leaf morphogenesis: 1. regeneration; 2. growth. *Gleditsia triacanthos* (Leguminosae)

- b Apical dominance and growth correlations between buds. Same species as a
 c Vascular histogenesis: 1. working of normal cambium; 2. neoformation of cambium. Same species as a
 d Determination of flowering and flower morphogenesis (microsurgical method) *Pisum sativum* (Leguminosae)
 e Seed dormancy and germination. *Olea europaea* (Oleaceae), *Quercus ilex* (Fagaceae)
 f Root morphogenesis: 1. regeneration; 2. tropism control. *Quercus ilex* (Fagaceae)
 NEW, D. A. T.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
 a Development of methods for growing embryos in culture. *Rattus* spec., *Mus musculus* (Rodentia)
 b Growth and differentiation of the placenta. (Rodentia)
 c Teratogenic effects of hyperthermia, excess glucose and steroid hormones
 NEWTH, D. R.; Ph.D., Prof. – Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.
 a Properties of primordial germ cells. *Xenopus laevis* (Anura)
 b Transplantation immunobiology. Same species as a
 NEYFAKH, A. A.: Dr.biol., Prof. – Lab. of Biochem. Embryol., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 NGOC-HO, Ms. N.; Dr. 3e cycle – Dept. of Zool., Brit. Museum (Nat.Hist.), Cromwell Rd., LONDON SW7 5BD, England
 a Larval development. (Thalassinidea, Decapoda, Crustacea)
 NICOLAS, P. B. G.; Dr. – Dépt. de Biol. Gen. et Appl., Univ. de Lyon 1, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
 a Genetics of chloroplast development mutants. *Euglena gracilis* (Euglenophyceae)
 NICOLET, G.; D.Sc. – Lab. d'Embryol. Expér., Inst. d'Histol., Univ. de Genève, 20 rue de l'Ecole de Médecine, 1211 GENÈVE 4, Switzerland
 NICOTRA, Ms. A.; Dr.biol.sci. – Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA (7), Italy
 NIE, C. J. van; D.V.M. – Lab. of Anat. and Embryol., Free Univ., v.d. Boechorststr. 7, AMSTERDAM-Z., Netherlands
 a Ontogenetic malformations of the heart. *Sus scrofa*, *Bos taurus* (Artiodactyla)
 b Pathological development of heart and vessels. Same species as a
 c Pathological development of bone. *Sus scrofa* (Artiodactyla)
 d Teratology. (Mammalia), *Homo sapiens* (Primates)
 e Development of the subneural apparatus. *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
 f Regeneration of terminal nerves and motor end plates. Same species as e
 NIELSEN, Cl.; Dr.phii. – Marine Biol. Lab., Univ. of Copenhagen, Strandpromenaden, 3000 HELSINGØR, Denmark
 a Developmental biology. *Crisia* spec., *Alcyonium* spec., *Hippodiplosia* spec., *Bugula* spec., *Fenestrulina* spec. (Ectoprocta)
 NIEMIERKO, Ms. A. – Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
 a Early development of eggs; experimental induction of chromosomal aberrations. *Mus musculus* (Rodentia)
 b Experimental induction of triploidy (in vivo and in vitro) and postimplantation development of triploid embryos. Same species as a
 NIEUWKOOP, P. D.; Phil.Dr., Prof. – Hubrecht Lab., (Intern. Embryol. Inst.), Uppsalaan 8, 3584 CT UTRECHT, Netherlands
 a Comparative study on the origin of primordial germ cells and mesoderm formation, and phylogenetic implications. (lower Vertebrata incl. Reptilia) (with L. A. SUTASURYA and co-workers, Bandung, Indonesia)
 b Analysis of dorso-ventral and cranio-caudal polarity in mesoderm induction. *Ambystoma mexicanum* (Urodela) (with E. C. BOTERENBROOD and K. HARA)
 c Origin of dorso-ventral polarity of the egg. *Discoglossus pictus*, *Xenopus laevis* (Anura) (with K. HARA and G. A. UBBELS)
 NIGON, V.; D.Sc., Prof. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon 1, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
 a Biochemistry and genetics of chloroplast differentiation. *Euglena gracilis* (Euglenophyceae)
 b Erythrocyte differentiation. *Gallus domesticus* (Aves)
 NIIZAWA, N.; M.D. – Lab. of Embryol. and Cytogenet., Univ. Clinic of Gynecol. and Obstet., Geneva Univ., 20 rue Alcide-Jentzer, 1211 GENÈVE 4, Switzerland
 NIJWEIDE, P. J.; Dr. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands
 a Calcium and strontium metabolism of embryonic calvarium periost. *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
 b Metabolism and hormonal sensitivity of cultured bone cells derived from embryonic calvaria. *Gallus domesticus* (Aves)
 c Effects of gamma-irradiation on bone and cartilage. *Mus musculus* (Rodentia)
 NIKITIN, N. S.; Cand.biol. – Vet. Inst., Nijegorodgky St., LENINGRAD, U.S.S.R.
 NIKITINA, Ms. L. A.; Cand.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 NORDLING, S.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with J. J. WARTIOVAARA, L. O. SAXÉN, E. LEHTONEN, P. EKBLOM and J. SALONEN)
 NORRGREN, G.; Fil.kand. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
 a Factors stimulating axon outgrowth in vitro
 NÖTHIGER, R.; Dr.phil., Prof. – Zool.-vergl. Anat. Inst., Univ. Zürich, Käntlergasse 16, 8006 ZÜRICH, Switzerland
 a Sex determining genes studied at the cellular level. *Drosophila melanogaster* (Diptera)
 b Genetic analysis of determination by means of induced mitotic recombination. Same species as a
 NOULIN, G. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
 a Contrôles endocrines de la formation et de l'évolution des régénérants d'appendices locomoteurs. (Isopoda, Crustacea)
 b Etude expérimentale de la production d'appendices surnuméraires. (Isopoda, Crustacea)
 NOWAKÓWNA-SEMBRAT, Ms. J.; Ph.D. – Inst. of Zool., Univ. of Wrocław, ul.Sienkiewicza 21, 50-335 WROCŁAW, Poland
 a Cytology and cytochemistry of partial metamorphosis. *Triturus spec.* (Urodea)
 b Cytology and cytochemistry of gametogenesis. *Embletonia pallida* (Opistobranchia, Gastropoda)
 NÜBLER-JUNG, Ms. K.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Katharinenstr. 20, 78 FREIBURG, B.R.D. (Germany)
 a Function of the intersegmental region in pattern reconstitution (transplantation). *Dysdercus intermedius* (Heteroptera)
 b Pattern formation in imaginal discs (combination experiments). *Drosophila hydei* (Diptera)
 NUSS, Ms. E.; Dr.rer.nat. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
 NÜSSLIN-VOLHARD, Ms. C.; Dr.rer.nat. – Biol. Inst. I. (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
 a Pattern formation in early embryogenesis: maternal effect mutants (bicaudal etc.). *Drosophila melanogaster* (Diptera)
 NYIRI, S.; M.D. – Dept. of Ophthalmol., Univ. Med. Sch., Korányi S.16, SZEGED, Hungary
 a Developmental histochemistry and electron microscopy of the autonomic ground plexus. *Rattus rattus* (Rodentia) (with B. CSILLIK, E. KNYIHÁR, M. GAJÓ and G. KÁLMÁN, Dept. of Anat.)
 NYITRAY, Ms. M. – Res. Inst. for Pharm. Chem., P.O.Box 82, 1325 BUDAPEST, Hungary
 a Effect of clofibrate and phenobarbital Na administered to pregnant and lactating mothers on offspring: mortality, hepatomegaly; study of critical time and liver histology. *Rattus norvegicus* (Rodentia)
 ODEIGHAH, P. C. G. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 O'DELL, D. S.; Ph.D. – Dept. of Zool. and Comp. Anat., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
 a Biochemistry of the transitions between the amoeboid and the flagellate stages. *Naegleria gruberi* (Rhizopoda)
 b Cell surface membranes: changes after fertilization and during early development. *Paracentrotus lividus* (Echinoidea); various spp. (Asciidae)
 c Developmental biology. Various spp. (Mesozoa)
 OGORZAŁEK, A.; Ph.D. – Inst. of Zool., Univ. of Wrocław, ul.Sienkiewicza 21, 50-335 WROCŁAW, Poland
 a Oogenesis (autoradiography). *Drosophila melanogaster* (Diptera)
 b Cytochemistry of oogenesis. *Nepa cinerea*, *Ranatra linearis*, *Naucoris cimicoides* (Heteroptera)
 OJEDA SAHAGUN, J. L.; Dr. Med., Prof. – Serv. de Embriol. Exper., Dept. de Anat., Fac. de Med., SANTANDER, Spain
 a Biochemical and ultrastructural effects of barbituric compounds on the embryo. *Gallus domesticus* (Aves)
 b Cell death in the developing central nervous system (stage 7-20 H.H.; electron and optic microscopy). Same species as a
 OKKER-REITSMA, Ms. G. H.; Ph.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
 a Steroid production of placenta and embryo of different ages. *Mus musculus*, *Cavia porcellus* (Rodentia)
 OKSCHE, A.; Dr.med., Prof. – Zentrum für Anat. und Cytobiol., Justus Liebig Univ., Aulweg 123, 6300 GIESSEN, B.R.D. (Germany)
 a Development of neuroendocrine cell complexes (units) in the hypothalamus (neurohistology, electron microscopy, cytometry). (Aves, Mammalia)
 b Development of photo-neuro-endocrine systems: retino-hypothalamic connections; deep hypothalamic photoreceptor; pineal photoreceptor organs. (Vertebrata)
 OLIVEREAU, Ms. M. M. A.; D.Sc. – Lab. de Physiol., Inst. Océanographique, 195 rue Saint-Jacques, 75005 PARIS, France
 a Cytology and histochemistry of endocrine glands in relation with development, and after various experimental procedures. (Salmonidae, Teleostei)
 b Histophysiology of endocrine glands. (Anguillidae)
 c Effects of salinity on larvae; histophysiology of endocrine glands. *Pleurodeles waltl* (Urodea)
 OLIVO, O. M.; Prof. – Ist. di Anat. Umana Norm., Univ. di Bologna, Via Irnerio 48, BOLOGNA, Italy
 OPAS, Ms. J.; M.Sc. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przedmieście 26/28, 00-927 WARSZAWA, Poland

- a Cytokinesis in blastomeres from two-cell stage: 1. microcinematography; 2. ultrastructure after cytochalasin-B-treatment; 3. colcemid blocking; 4. contractility of glycerinated models. *Mus musculus* (Rodentia)
- b Changes of cortical properties of oocytes and fertilized eggs as revealed by cytochalasin B-induced blebbing. Same species as a
ORLOVA, Ms. I. I.; Cand.biol.sci. – Lab. of Embryol., Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- ORTOLANI, Ms. G.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- ORTS LLORCA, F.; Prof. – Dept. of Anat., Fac. of Med., Ciudad Univ., MADRID, Spain
- OSIPOV, V. V.; Dr. – Inst. of Med. Genet., Kashirskoye Chaussee 6a, MOSCOW 115478, U.S.S.R.
- a Genetic regulation of development of brain, eye, and limbs. *Mus musculus* (Rodentia)
- OSTROUMOVA, Ms. T. W. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Interaction between morphogenetic and metabolic processes in early embryonic development. (Hydrozoa; Echinoidea)
- OUDHOFF, H. A. J.; Dr. – Orthodont. Dept., Dent. Sch., State Univ. of Utrecht, Sorbonnelaan 16, "De Uithof", UTRECHT, Netherlands
- a Experiments on persistence of cranial sutures till old age; possible causes: bone movements or sutural tissue properties (transplantation of bone into suture). *Rattus norvegicus* (Rodentia) (with I. S. MARKENS)
- OYEN, H. van; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Development and correctibility of behaviour. *Rattus norvegicus* (Rodentia)
- OŻDZEŃSKI, W.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Differentiation of the somatic and germinal tissues of the gonad. *Mus musculus* (Rodentia)
- b Normal development. *Clethrionomys glareolus* (Rodentia)
- OZOH, P.; B.Sc. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Effects of pollutants on development. (Teleostei)
- PALA, Ms. M.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
- PALEČEK, J.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- PALÉN, K.; Fil.Kand. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3, 223 62 LUND, Sweden
- PALLADINI, G.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
- a Effects of heavy metals and food dyes on head regeneration. *Dugesia gonocephala* (Turbellaria)
- b Effects of heavy metals, food dyes and pollutants on development of nervous system. *Xenopus laevis* (Anura)
- PANELIUS, S.; Ph.D. – Dept. of Zool., Univ. of Helsinki, P. Rautatiekatu 13, 00100 HELSINKI 10, Finland
- PANIGEL, M.; Dr.Méd., D.Sc., Prof. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7ème étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
- a Physiology of fetal-maternal exchange. *Macaca mulatta*, *M. fascicularis*, *Papio cynocephalus* (Primates)
- b Ultrastructure of the placental membrane. (Primates)
- c Ultrastructure of trophoblast during pathological pregnancy. *Homo sapiens* (Primates)
- d Fetal visualization in utero (X-ray scanning, echotomography) (Primates)
- PANNESE, E.; M.D., Prof. – 2nd Inst. of Human Anat., Univ. of Milano, Via Mangiagalli 14, 20133 MILANO, Italy
- a Morphology and histochemistry at the electron microscope level of the degenerative events in embryonic spinal ganglia. *Gallus gallus* (Aves)
- b Membrane specializations in embryonic spinal ganglia, particularly cell junctions (freeze-fracture and lanthanum techniques). Same species as a
- PANOVA, Ms. I. G. – Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Dependence of DNA synthesis and cell proliferation in pigment epithelium of the retina upon general growth factors of the eye. *Rattus norvegicus* (Rodentia) (with O. G. STROEVA)
- PANTELOURIS, E. M.; Ph.D. – Biol. Dept., School of Biol. Sci., Univ. of Strathclyde, George St., GLASGOW G1 1XW, Scotland, U.K.
- a Immunobiology of the athymic mutant nude. *Mus musculus* (Rodentia)
- b Development of lymphoid tissues and immune responses. Same species as a
- c Biological aspects of ageing
- PAPAIOANNOU, Ms. V. E.; Ph.D. – Zool. Dept., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
- a Analysis of mutants in chimeras. *Mus musculus* (Rodentia)
- b Injection of teratocarcinoma cells into embryos. Same species as a
- PAPILLON, Ms. M. – U.E.R. de Biol.-Zool., Univ. Paris VI, 105 Bd. Raspail, 75006 PARIS, France
- a Influence of breeding temperature upon protein patterns in haemolymph, fat body, and oocytes (electrophoresis). *Schistocerca gregaria* (Orthoptera)
- b Effect of parasitisation by *Halameba locustae* on protein patterns and oocyte growth. Same species as a
- c Effects of breeding temperature upon ecdysone and juvenile hormone levels. Same species as a
- PARISI, E. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P.3042, 80100 NAPOLI, Italy
- a Enzymes controlling DNA synthesis in developing embryos. *Paracentrotus lividus* (Echinoidea)

- a Aggregation of single cells from normal and dystrophic newborn and embryonic animals with gyratory shaking; biochemistry of enzyme system differentiation of aggregates. *Mus musculus* (Rodentia)
- b Effect of light on muscle and nerve cells in tissue culture. Same species as a
- c Abnormal relationship between Schwann cells and axons in hereditary muscular dystrophy. Same species as a
- d Possible malfunction of muscle regeneration in Duchenne dystrophy (tissue culture). *Homo sapiens* (Primates)

PASCAUD, M.: Dr., Prof. – Lab. de Physiol. Metab. et Nutr., Univ. Paris VI, 9 quai Saint-Bernard, 75230 PARIS Cedex 05, France

- a Linoleic acid metabolism and renewal in the growing animal. *Rattus spec.* (Rodentia)

- b Transport of linoleic acid from the mother to the embryo. Same species as a

PASCUAL-MORENILLA, Ms. M. T.; M.D., Assoc. Prof. – Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain

- a Experimental embryology of the cerebellum. *Gallus gallus* (Aves)

PASKIN, N.; B.Sc. – Dept. of Biochem., Univ. Hosp. Med. School, Clifton Bd., NOTTINGHAM NG7 2UH, England

- a Protein degradation, using fatty acid synthetase, during differentiation of mammary gland in tissue culture as a model system. *Oryctolagus cuniculus* (Lagomorpha)

- b Role of protein turnover in developmental processes, differentiation, etc., using simple computer models

PASQUINI, P.; Ph.D., Prof. – Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA (7), Italy

PASSAPONTI, A.; M.D., Prof. – Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy

- a The development of the inguinal canal. *Homo sapiens* (Primates)

- b Mezzi facilitanti l'attaccamento di innesti omo- ed eteroplastici in embrioni. *Gallus domesticus* (Aves), *Rattus rattus* (Rodentia)

- c Capacità formativa degli epitelii di rivestimento nell'embrione. *Gallus domesticus* (Aves)

PASTEELS, J. J.; M.D., Prof.hon. (Emer.) – Avenue Delleur 35, 1170 BRUXELLES, Belgium

PATRICOLO, Ms. E.; Dr.nat.sci., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

- a Collagen in embryos. *Ciona intestinalis* (Asciidae)

- b Cellular aggregation. *Ciona intestinalis*, *Ascidia malaca* (Asciidae)

- c Metamorphosis. (Asciidae)

PAUL, J.; Ph.D. – Beatson Inst. for Canc. Res., Royal Beatson Mem. Hosp., 132 Hill St., GLASGOW G3 6UD, Scotland, U.K.

PAUNOVIĆ, Ms. J.; B.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box. 166, 41001 ZAGREB, Yugoslavia

- a Effects of perinatal influences on stress response, emotionality, and learning. *Rattus norvegicus* (Rodentia) (with K. MILKOVIĆ and M. PERUZOVIĆ)

- b Development and function of the pituitary-adrenocortical system in foetus and neonate (morphology and biochemistry). Same species as a (with K. MILKOVIĆ and R. KLEPAC)

PAUTOU (MÉRIC), Ms. M. P.: Dr.spéc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France

- a Development of dorso-ventral polarity in the hind limb. *Gallus gallus*, *Anas platyrhynchos* (Aves)

- b Kinetics of programmed cell death in the interdigital spaces. Same species as a

- c Relation between apical ectodermal ridge and proximo-distal growth in the limb bud. *Gallus gallus* (Aves)

PAVÉ, A.-G.; Ing., Dr.spéc. – Lab. de Biomét., Sect. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France

PAVIĆ, Ms. D.; B.C. – Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. "Boris Kidrić", P.O.Box 522, 11001 BEOGRAD, Yugoslavia

PAWLOWITZKI, J. H.; Dr.med., Prof. – Inst. für Humangenet., Westf. Wilhelms Univ., Vesaliusweg 12-14, 44 MÜNSTER, B.R.D. (Germany)

- a Prenatal diagnosis of genetic defects. *Homo sapiens* (Primates)

- b Malformation syndromes; delination and genetic counseling. Same species as a

PAYEN, Ms. G. G.; Dr. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France

- a Description and control of sex differentiation. *Pontastacus leptodactylus*, *Carcinus maenas*, *Callinectes sapidus*, *Rhithropanopeus harrisii*, *Menippe mercenaria*, *Ocypoda quadrata* (Decapoda, Crustacea)

- b Control of spermatogenesis. *Pontastacus leptodactylus* (Decapoda, Crustacea)

PAYS-DE SCHÜTTER, Ms. A. G.; Lic.Sc.Chim. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium

- a Effects of inhibitors and inductors on oocyte maturation. (Amphibia; Teleostei)

PEAUCELLIER, G.; Dr. 3e Cycle – Stat. Biol., place Georges-Tessier, 29211 ROSCOFF, France

- a Effects of various treatments and substances on maturation, meiosis, and early development, comparing fertilized and artificially activated eggs (cytology, metabolism, isotope study). *Sabellaria alveolata* (Polychaeta)

- b Reinitiation of meiosis by proteolytic enzymes: purification of proteases; early cytological and physiological changes. Same species as a

- PEDERSEN, K. J.; Ph.D. – Inst. of Gen. Zool., Univ. of Copenhagen, 15 Universitetsparken, 2100 COPENHAGEN Ø, Denmark
- a Formation of connective tissue filaments in regenerating animals. *Dugesia tigrina* (Turbellaria)
 - b Cytology and cytochemistry of starving animals. Same species as a
 - c Cellular basis for regeneration. *Lineus ruber* (Nemertea)
 - d Wound healing (scanning electron microscopy). Same species as a
- PEEL, Miss S.; Ph.D. – Dept. of Human Morphol., Univ. of Southampton, Med. Sch., Highfield, SOUTHAMPTON SO9 5NH, England
- a Cell proliferation and differentiation in placenta and female genital system. *Rattus* spec. (Rodentia) (with D. BULMER)
 - b Immunology of pregnant uterus. (Rodentia) (with D. BULMER)
- PEGRUM (HALL), Ms. S. M.; B.Sc. – Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Ultrastructure of cellular contacts in tissue culture. *Gallus gallus* (Aves), *Mus musculus* (Rodentia)
- PEHLEMANN, F.-W.; Dr., Prof. – Anat. Inst. der Univ., Olshausenstr. 40-60, 23 KIEL, B.R.D. (Germany)
- a Ultrastructural morphogenesis and functional morphometry of endocrine glands (adenohypophysis, adrenal, thyroid). *Rana temporaria*, *Xenopus laevis* (Anura)
 - b Ultrastructure of amitosis. *Rana temporaria* (Anura), *Homo sapiens* (Primates)
- PELLING, C.; Dr. – Max-Planck Inst. für Biol., Abt. Beermann, Spemannst. 34, 74 TÜBINGEN, B.R.D. (Germany)
- PELLINIEMI, L. J.; D.Med. – Lab. of Electr. Micr., Univ. of Turku, Kiinanmyllynkatu 10, 20520 TURKU 52, Finland
- a Development of the genital system in embryos. *Sus scrofa domesticus* (Artiodactyla)
 - b Development of embryonic prostate. *Homo sapiens* (Primates)
- PELLONI-MÜELLER, Ms. G.; Ph.D. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Localisation and accumulation of myofibrillar proteins in cultures of embryonic muscle (indirect immunofluorescence; electron microscopy). *Gallus domesticus* (Aves)
- PERISSEL, B. – Lab. d'Histo-Embryol. Cytogénét., Fac. de Méd., Bd. Winston Churchill, B.P.38, 63001 CLERMONT-FERRAND Cedex, France
- a Morphogenesis, cytochemistry, and autoradiography of perinatal and adult myocardium in cell culture; pharmacological study. *Rattus* spec (Rodentia)
 - b Ultrastructure and cytochemistry of perinatal and adult hepatic cells in subculture. Same species as a
- PERKOWSKA (MOSER), Ms. E.; Ph.D. – Zaulek 28, Zoliborz, 01 564 WARSZAWA, Poland
- a Histochemistry of an intra-nuclear structure, connected with production of nucleoli-like bodies in oocytes. *Geotrupes stercorarius*, *Aphodius fessor* and other spp. (Scarabaeidae, Coleoptera)
- PERRIARD, J. C.; Ph.D. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a In vitro myogenesis. *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
 - b Synthesis and degradation of muscle proteins. Same species as a
- PERRIER-BARTA, Ms. H.; D.E.S. – Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France
- a Electron microscopy of the foetal and perinatal pancreas. *Rattus norvegicus* (Rodentia)
- PERRY, Ms. M. M.; B.Sc. – Poultry Res. Ctr., Agric. Res. Coun., King's Bldgs., West Mains Rd., EDINBURGH EH9 3JS, Scotland, U.K.
- a Yolk transport mechanism in ovarian follicle. *Gallus domesticus* (Aves)
- PERSOV, G. M.; Dr.biol. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
- a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
- PERUZOVIĆ (GRADT), Ms. M.; Grad. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Development and function of the pituitary-adrenocortical system in foetus and neonate (biochemistry, histology, histochemistry). *Rattus norvegicus* (Rodentia) (with K. MILKOVIĆ)
 - b Effects of perinatal influences, especially adrenocorticoids, on emotionality, active and passive avoidance conditioning. Same species as a (with K. MILKOVIĆ and J. PAUNOVIĆ)
- PERZANOWSKA, Ms. A.; M.Sc. – Dept. of Comp. Anat., Jagellonian Univ., ul.Krupnicza 50, 30-060 KRAKÓW, Poland
- a Early development of contractile proteins. *Salmo trutta* (Teleostei)
- PÉTAVY, G. – Lab. d'Entomol. et d'Ecophysiol Exp., Univ. Paris XI (Paris-Sud), Bât.446, 91405 ORSAY, France
- PETERKA, M.; MUDr. – Inst. of Exp. Med., Dept. of Teratol., Czech. Acad. of Sci., Legerova 61, 120 00 PRAHA 2, Czechoslovakia
- a Pre- and postnatal development of abnormal morphogenetic systems. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- PETERS, Ms. H.; M.D. – Finsen Lab., Finsen Inst., 49 Strandboulevarden, 2100 COPENHAGEN Ø, Denmark
- a The effect of hormones (testosterone, oestrogen, gonadotropin) on ovarian development in infancy. *Mus musculus* (Rodentia)
 - b The role of FSH in follicle development. Same species as a
 - c Development of the ovary. *Homo sapiens* (Primates)

- PETERS, P. W. J.; M.V.D. – Dept. of Teratol. and Pharmacol. Pathol., Natl. Inst. of Public Health, P.O.Box 1, BILTHOVEN, Netherlands
- a Morphogenesis of malformations caused by retinoic acid: relation to dose and stage at treatment. *Rattus norvegicus* (Rodentia)
 - b Normal morphogenesis as standard for embryotoxicity procedures. Same species as a
 - c Induction of neural tube defects: relation between malformation and fetal protein levels in amniotic fluid and maternal serum
 - d Whole body micro-autoradiography in controlling placenta passage and distribution of labelled chemicals. Same species as a
- PETERS, T.; Dr.med., Prof. – Zentr. für Anat. und Cytobiol., Justus Liebig Univ., Aulweg 123, 6300 GIESSEN, B.R.D. (Germany)
- a Alterations in tissue differentiation after x-ray-treatment. *Triturus alpestris* (Urodela)
 - b Intravital microscopy of normal and x-ray-treated gastrulae and neurulae. Same species as a
- PETZELT, Ch. P.; Ph.D. – Inst. of Cell Res., German Canc. Res. Ctr., Im Neuenheimer Feld 280, Postfach 101949, 69 HEIDELBERG 1, B.R.D. (Germany)
- a Mitosis regulation by a Ca^{++} -ATPase during early development. (Echinodermata)
 - b Antimitotic agents other than antitubulins (cell cultures and Echinodermata)
- PETZOLDT, U.; Dr.rer.nat. – Fachber. Biol.-Zool., Univ. Marburg, Lahmberge, 3550 MARBURG, B.R.D. (Germany)
- a Protein patterns in early development. (Mammalia)
 - b Enzyme activation during embryogenesis. (Mammalia)
- PEXIEDÉR, T.; M.D., Assoc. Prof. – Inst. d’Histol. et d’Embryol., Univ. de Lausanne, 9 rue Bugnon, 1011 LAUSANNE, Switzerland
- a Tissue dynamics of heart morphogenesis. *Gallus domesticus* (Aves)
 - b Embryophysiology of the circulation in the aortic arches and the heart. Same species as a
 - c Cell death in the development of the heart. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
 - d Teratogenic mechanisms of cardiovascular malformations. *Gallus domesticus* (Aves), *Mus musculus*, *Rattus norvegicus* (Rodentia)
 - e Endocardial development under normal and modified hemodynamic conditions (scanning electron microscopy). Same species as a
- PFANNENSTIEL, H.-D.; Dr. – Zool. Inst. der Techn. Univ., Pockelstr. 10a, 3300 BRAUNSCHWEIG, B.R.D. (Germany)
- a Sexual differentiation and regeneration. *Ophryotrocha* spec. (Polychaeta)
 - b Endocrine control of gametogenesis, general aspects of oogenesis (electrophoresis, autoradiography, electron microscopy). Same species as a
- PFLÜGFELDER, O.; Dr.rer.nat., Prof. (Emer.) – Egilolfstr. 35, 7000 STUTTGART-Birkach, B.R.D. (Germany)
- PHILLIPS, I. D. J.; Ph.D. – Dept. of Biol. Sci., Washington-Singer Labs., Univ. of Exeter, EXETER EX4 6DY, England
- a Role of growth hormones in development, particularly in correlative phenomena such as apical dominance. *Helianthus annuus* (Compositae), *Phaseolus multiflorus*, *P. vulgaris*, *Pisum sativum* (Papilionaceae)
 - b Perception of gravity and the mechanisms of geotropic and epinastic responses. *Helianthus annuus* (Compositae) *Zebrina pendula* (Commelinaceae), *Phaseolus* spp. (Papilionaceae)
- PICARD, J. J.; M.D., Ph.D., Prof. – Lab. d’Embryol., Inst. de Zool., Univ. de Louvain, Sciences 12, 1348 LOUVAIN-LA-NEUVE, Belgium
- PICAUD, J. L. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
- a Cycle sexuel et son contrôle. *Ligia* spec., *Porcellio* spec. (Isopoda, Crustacea)
- PIEAU, Cl.; Lic.ès Sci. – Serv. d’Embryol. Expér., Inst. Pasteur, 20 rue des Moulins, 95110 SANNOIS, France
- PIERIK, R. L. M.; Dr., Ir. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O.Box 30, WAGENINGEN, Netherlands
- a Callus induction, callus culture and regulation of morphogenesis in isolated tissues. *Anthurium andraeanum* (Araceae), *Freesia* hybr. (Iridaceae), *Gerbera jamesonii* (Compositae), *Nerine bowdenii* (Amaryllidaceae), (Bromeliaceae)
- PIETZSCH-ROHR SCHNEIDER, Ms. I.; Dr.rer.nat. – Anat. Inst. der Univ., Olshausenstr. 40-60, 2300 KIEL, B.R.D. (Germany)
- a Ultrastructural development of the retina. *Haplochromis burtoni* (Cichlidae, Teleostei)
 - b Ultrastructural morphogenesis of supraependymal structures in the fourth ventricle. *Mus musculus* (Rodentia)
- PIHAN, J. C.; Agr. de Sci., D.Sc. – Inst. Européen d’Écol., 57000 METZ, France
- a Effects of heavy metals on the fecundity and embryonic development. *Daphnia magna* (Cladocera, Crustacea)
- PIJNACKER, L. P.; Ph.D. – Vakgroep Genetica, State Univ. of Groningen, Biol. Ctr., Vleugel A, Kerklaan 30, HAREN 8045, Netherlands
- a Oogenesis, spermatogenesis, spermogenesis, fertilization, and parthenogenesis. *Carausius morosus* (Phasmida); (Acari, Arachnida)
 - b Quantitative cytochemistry, also in relation to differentiation. Same species as a
- PILLERI, G.; Dr.med., Prof. – Brain Anat. Inst., Untere Zollgasse 71, (Walldau), 3072 OSTERMUNDIGEN-BE, Switzerland
- a Entwicklung des Gehirns. *Gastor canadensis* (Rodentia)
 - b Die Protuberantia sclerae am embryonalen Auge. *Homo sapiens* (Primates)

- c Ontogenese des Auges. *Balaenoptera physalus*, *B. acutorostrata*, *Megaptera novaeangliae*, *Delphinus delphis*, *Tursiops truncatus*, *Delphinapterus leucas* (Cetacea)
- d Regressive evolution of the eye. *Platanista indi*, *P. gangetica*, *Inia geoffrensis*, *Pontoporia blainvillei* (Platanistoidea, Cetacea)
- e Entwicklung der Körperform, dieselben Arten wie c
- f Ontogenese des Zentralnervensystems, dieselben Arten wie c
- g Ontogenesis (especially nervous system). *Globicephala melaena* (Odontoceti, Cetacea)
- h General ontogenesis. *Platanista gangetica*, *Pontoporia blainvillei* (Cetacea)
- i Ontogenese der instinktiven Bewegungen und ihr Wiederauftreten als neurologische Symptome bei Hirnkrankheiten. *Homo sapiens* (Primates)
- PIRKIĆ, A.; M.D. – Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia
- PIRIRNO, Ms. A. M. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a RNA synthesis in early development. *Paracentrotus lividus* (Echinoidea)
- b "Capping of RNA. Same species as a
- PLATONOV, E. S.; Cand.biol.scii. – Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of the USSR, Profsoyuznaya St. 7 (1), MOSCOW 117312, U.S.S.R.
- a Biochemistry and immunology of crystallins during lens development. *Mus musculus* (Rodentia)
- PLEEGING, J. H.; M.D. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, GRONINGEN, Netherlands
- a Topographical relationships in the intestine during ontogenesis. *Mus musculus* ((Rodentia))
- b The origin of the pronephric duct. Same species as a
- POLANI, P. E.; M.D., F.R.S., Prof. – Paediat. Res. Unit, Guy's Hosp. Med. Sch., Guy's Tower, LONDON SE1 9RT, England
- a Male and female meiosis. *Mus spec.*, *Acomys spec.*, *Microtus spec.* (Rodentia), *Homo sapiens* (Primates)
- b Developmental cytogenetics, especially origin of aneuploidy. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
- POLEŽHAEV, L. V.; Dr.biol., Prof. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- POLGE, C.; Dr. – A.R.C. Unit of Reprod. Physiol. & Biochem., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- POLL, N. E. van de; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Development and correctibility of behaviour. *Rattus norvegicus* (Rodentia)
- POLTEVA, Ms. D. G.; Cand.biol.scii. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Morphogenesis during somatic embryogenesis. *Obelia geniculata*, *O. flexuosa*, *O. lovenii*, *Coryne lovenii*, *Hydra oligactis* (Hydrozoa)
- PORCELLI, Ms. F.; Ph.D., Prof. – Inst. of Dom. Anim. Anat., Univ. of Milano, Via Celoria 10, 20100 MILANO, Italy
- a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitatieve histochemistry). *Rattus rattus* (Rodentia)
- b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
- PORTCH, P. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Cell migration within the embryo. *Gallus domesticus* (Aves) (with M. R. BELLAIRS)
- POSINOVEČ, Ms. J.; M.D., D.Sc., Prof. – Inst. of Histol. and Embryol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Anomalies of spermatogenesis due to disorders in testis development. *Homo sapiens* (Primates)
- b Appearance and pattern formation of reticulin fibers during ontogenesis of the testis. Same species as a
- c Embryonic development of the parotid gland. Same species as a
- POURTOIS, M.; M.D., Prof. – Inst. de Stomatol., Univ. Libre de Bruxelles, 322 rue Haute, 1000 BRUXELLES, Belgium
- POUWELS, Ms. E.; Dr. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, NIJMEGEN, Netherlands
- a Development of the cerebellum (light microscopy, electron microscopy). *Salmo gairdneri* (Teleostei)
- PRAT, Ms. M.; Ph.D. – Cell and Molec. Biol. Lab., Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeleglio 52, 10126 TORINO, Italy
- a Cell membrane differentiation; immunochemistry of surface macromolecules. *Mus musculus* (Rodentia)
- b Membrane-mediated growth control in BHK cells. *Mesocricetus auratus* (Rodentia)
- PRATT, C. W. McE.; M.D. – Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Development of skeletal tissue. Many spp. (Mammalia)
- PREDA, V. G.; M.D., Prof. – Chaire de Biol.-Histol., Inst. de Méd. et Pharm., Fac. de Méd., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania
- a Influence de la température d'incubation sur l'immunomorphologie de l'embryon. *Gallus spec.* (Aves)
- b Corrélation entre le foie en régénération et autres organes (surrénale, testicule). *Rattus spec.* (Rodentia)

- PRELIPCEANU, Ms. O.; ing. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Tissue culture; embryo culture. *Gallus domesticus* (Aves)
- PRESLEY, R.; M.B., B.Chir. – Dept. of Anat., Univ. Coll., P.O.Box 78, CARDIFF CF1 1XL, Wales, U.K.
- a Development of cranial structures: comparative correlation between embryology and palaeontology. (*Vertebrata*)
- PŘESLÍČKOVÁ, Ms. M. – Inst. of Pharmacol., Czech. Acad. of Sci., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
- a Technique of the morphological examination of implantation and placentation. *Homo sapiens* (Primates; Rodentia)
- PRESTIGE, M. C.; Ph.D. – Physiol. Dept., Med. School, Univ. of Edinburgh, Teviot Place, EDINBURGH EH8 9AG, Scotland, U.K.
- PRESTON, T. M.; B.Sc. – Dept. of Zool. and Comp. Anat., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
- a Morphogenesis. *Naegleria gruberi* (Rhizopoda)
- PREŠTOVÁ, Ms. A.; RNDr., CSc. – Inst. of Exper. Biol. and Ecol., Slovak. Acad. of Sci., Dúbravská č. 26, 88534 BRATISLAVA, Czechoslovakia
- a Function of green pigments in young embryos. *Linum usitatissimum* (Linaceae)
- b Embryogenesis in vitro and effect of growth substances and other factors on embryogenesis in vitro. Same species as a
- PRIESTER, W. de; Ph.D. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Electron microscopy of developmental stages. *Calliphora erythrocephala* (Diptera)
- b Morphological and functional alterations of organelles during metamorphosis. Same species as a
- PRIEUR, D. M.; Dr. 3e Cycle – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France
- a Pathology of larvae reared in laboratories and hatcheries. Various spp. (Lamellibranchia)
- PRITCHARD, D. J.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with R. M. CLAYTON, J. C. CAMPBELL and D. E. S. TRUMAN (Edinburgh), and D. S. McDEVITT (Philadelphia))
- b Ultrastructure, immunology and cell properties of lenses with normal and genetically modified cell membranes. Same species as a (with R. M. CLAYTON, and D. I. de POMERAI)
- c Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with R. M. CLAYTON, and D. I. de POMERAI)
- d In vitro analysis of transdifferentiation of neural and pigmented retina. *Gallus domesticus* (Aves) (with R. M. CLAYTON and D. I. de POMERAI)
- e In vitro analysis of teratogens. (with R. M. CLAYTON and D. I. de POMERAI)
- PROPPER, A. Y.; Dr.Sc. – Lab. de Zool. et Embryol., Fac. des Sci. et des Techn. de Besançon, place Maréchal Leclerc, 25030 BESANÇON Cedex, France
- a Mammary gland embryogenesis: 1. tissue interaction; 2. transmission and scanning electron microscopy. *Oryctolagus cuniculus* (Lagomorpha)
- b Heterospecific tissue interactions. (Aves; Mammalia)
- c Interactions between cancerous and embryonic mammary tissues. *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
- PROTASE (POPPER), Ms. A. – Chaire de Biol.-Histol., Inst. de Méd. et Pharm., Fac. de Méd., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania
- a Corrélation entre le foie en régénération et autres organes (surrénale, testicule). *Rattus spec.* (Rodentia)
- b Influence de l'hormone gonadotrope choriale sur l'action de l'insecto-fungicide Dipterex concernant l'appareil génital de l'embryon. *Gallus spec.* (Aves)
- PRZYBYLOK, Th.; Dr.rer.nat. – Inst. für Entw.physiол., Univ. zu Köln, Gyrhofst. 17, 5 KÖLN 41, B.R.D. (Germany)
- a Interaction of plant hormones in leaf morphogenesis. *Antirrhinum majus* (Scrophulariaceae)
- b Biochemistry and analytical chemistry of plant hormones and their enzymes. Same species as a
- PUCCI (MINAFRA), Ms. I. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Characterization of embryonic collagen and identification of its possible precursor. *Paracentrotus lividus* (Echinoidea)
- PUCCIA, E.; D.Sc. – Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Isolation of actin in eggs. *Ciona intestinalis* (Ascidia)
- b Ribosomal RNA synthesis during opercular regeneration. *Hydrodromes norvegica* (Polychaeta)
- c Cyclic nucleotides during embryonic development. *Discoglossus pictus* (Anura)
- PUELLES-LOPEZ, L.; M.D. – Dept. de Anat., Fac. de Med., BADAJOZ, Spain
- a Light and electron microscopy of neuroblast migrations. *Gallus gallus* (Aves)
- b Postmitotic neuroblast differentiation and migration patterns in optic tectum, retina and diencephalon. Same species as a
- c Guidance mechanism of motor neuroblast migrations. Same species as a
- PURI, E. C.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a In vitro myogenesis. *Gallus domesticus* (Aves)
- b Control of cell proliferation. Same species as a

- PYLILO, Miss I. V.; Cand.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, 199164 LENINGRAD, U.S.S.R.
- a Electron microscopy of regeneration. *Bolinopsis infundibulum*, *Mertensia ovum* (Ctenophora)
 - b Influence of starvation on integration of the organism and on regeneration. *Criodrilus lacuum* (Lumbricomorpha). *Aeolosoma variegatum* (Naidomorpha, Oligochaeta)
- RADZIKOWSKI, St.; M.Sc. – Inst. of Zool., Warsaw Univ., Krakowskie Przedmieście 26/28, 00-927 WARSZAWA, Poland
- RAEDLER, Ms. E.; Dr.med. – Abt. Neuroanat., Anat. Inst. der Univ., Martinstr. 52, 2000 HAMBURG 20, B.R.D. (Germany)
- a Development of retina and brain before and after administration of DNA and RNA blocking drugs. *Rattus spec.* (Rodentia)
- RAEKALLIO, J.; M.D., Prof. – Dept. of Forensic Med., Univ. of Turku, Kiinamyllynkatu 10, 20520 TURKU 52, Finland
- a Biochemical characterization of enzymes appearing in early wound healing. *Rattus spec.*, *Cavia spec.* (Rodentia) (with P. L. MÄKINEN)
 - b Biochemistry of vascular response in experimental wound healing. Same species as a, and *Homo sapiens* (Primates) (with P. L. MÄKINEN)
 - c Effect of ageing on the enzymes in wound healing. Same species as b
 - d Biological sequences in regeneration of subcutaneous connective tissue, using "Cellstic" method: cells in the exudate are harvested in cellulose sponge, inserted in silastic tubing (histology, histochemistry, biochemistry, immunofluorescence). *Homo sapiens* (Primates)
- RAEVEN, M. B. J. M.; Drs. – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands
- a Biochemistry of wall formation. *Schizophyllum commune* (Basidiomycetes, Fungi)
- RAFFIN, J. P.; Dr. – Équipe de Neuroembryol., Lab. d'Anat. Comp., Univ. Paris VII, 2 place Jussieu, 75221 PARIS Cedex 05, France
- a Experimental morphogenesis of optic center and pathways. *Gallus gallus* (Aves)
- RAFTELL, Ms. M.; Ph.D. – Dept. of Immunol., Wenner-Gren Inst. for Exp. Biol., Fack, 104 05 STOCKHOLM 50, Sweden
- a Immunochemical studies on the reappearance of fetal enzyme active membrane antigens in chemically (DMAB) induced hepatomas. *Rattus spec.* (Rodentia)
- RAGGHIANTI, Ms. M.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy
- a Mitotic and lampbrush chromosomes in hybrids. *Triturus spec.* (Urodea)
 - b Electrophoretic studies in embryos and larvae. Same species as a
 - c Immunochemical characterization of yolk precursors in blood and their role in yolk sphere formation. Same species as a
- RAGOZINA, Ms. M. N.; Dr.biol. – A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.
- a Embryogenesis. *Testudo graeca* (Chelonia)
- RAINERI, Ms. M.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
- a Histochemistry of biogenic amines in embryos. (Cirripedia & Branchiopoda: Crustacea)
 - b Cholinesterase and phosphatase isozymes in embryos and larvae. Same species as a
 - c Yolk metabolism in embryos and larvae. Same species as a
- RAJTOVÁ, Ms. V.; M.V.Dr. – Dept. of Normal Anat., Sch. of Vet. Med., Komenského 73, 041 81 KOŠICE, Czechoslovakia
- a Morphogenesis of the chondrocranium. *Ovis aries*, *Capra hircus* (Artiodactyla)
 - b Effect of single exposure to ionizing radiation on limb and chondrocranium development. *Ovis aries* (Artiodactyla)
- RAMADE, F.; Prof. – Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d'Orsay, Bât.442, 91405 ORSAY, France
- a Effects of pesticides, especially organochlorine insecticides, on neuroendocrine system and on development and maturation of reproductive organs. *Locusta migratoria* (Orthoptera), *Leucophaea maderae* (Blattodea)
- RAMIREZ, F.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Regulation of hemoglobin synthesis. *Homo sapiens* (Primates)
- RAMSAY (KUNZ), Ms. Y. W.; Dr.phil. – Unit Devl. Biol., Zool. Dept., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland
- a Ultrastructure and histochemistry during development of 1) retinal photoreceptors and choroid, and 2) the pseudobranch. *Poecilia reticulata* (Teleostei)
 - b Development of retinal photoreceptors under different light conditions. Same species as a
 - c Ultrastructure of the urinary bladder in the embryo. Same species as a
- RANSOM, R. J.; Ph.D. – Inst. für Biol. III, Univ. Freiburg, Schänzlestr. 9-11, 7800 FREIBURG, B.R.D. (Germany)
- a Development of the head imaginal disc: clonal analysis. *Drosophila melanogaster*, *D. hydei* (Diptera)
 - b Computer modelling of developing systems, both in specific instances (e.g. of subject a), and as more general abstract models
- RANZI, S.; Ph.D., Prof. – Lab. di Zool., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy
- RASHEDI, M.; D.Méd. – Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, Rue Leo-Saignat, 33076 BORDEAUX Cedex, France
- a Role of testis in differentiation of genital duct. *Gallus gallus* (Aves)

- RATCLIFFE, N. A.; Ph.D. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.
- RAUNICH, L.; Ph.D., M.D., Prof. – Ist. di Anat. Comp., Univ. di Ferrara, via L. Borsari 46, 44100 FERRARA, Italy
- a Experiments on skull morphogenesis. *Rana esculenta*, *Bufo bufo* (Anura)
- RAVEN, Chr. P.; Ph.D., Prof. (Emer.) – Rembrandtlaan 19, DOORN, Netherlands
- a Computer simulation of embryonic development. (with J. J. BEZEM, Zool. Lab., State Univ. of Utrecht)
- RAYNAUD, A.; Dr. ès Sci. – Serv. d'Embryol. Expér., Inst. Pasteur, 20 rue des Moulins, 95110 SANSOIS, France
- REDI, C. A.; Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
- a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). *Rattus rattus* (Rodentia)
 - b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
- REGARD, Ms. E. – Lab. de Biol.-Vertébr., Univ. Paris XI (Paris-Sud), Bât.441, 91405 ORSAY, France
- RELEXANS, J. C.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Sexual differentiation in hermaphrodites. *Eisenia* spec. (Oligochaeta)
 - b Regeneration. *Eisenia* spec. (Oligochaeta), *Salamandra* spec., *Triturus* spec. (Urodea), *Mus musculus* (Rodentia)
- REMBISZEWSKA, Ms. A.; B.Sc. – Dept. of Pathomorphol., Inst. of Obstet. and Gynecol., Med. School Warsaw, ul.Karowa 2, 00-315 WARSZAWA, Poland
- a Mitotic activity of thymocytes and number of PAS-positive reticular cells in thymus with reference to birth weight, gestational age, postnatal period of life and associated pathology of foetus and newborn. *Homo sapiens* (Primates)
- REMBOLD, H.; Dr.rer.nat., Prof. – Dept. of Insect Biochem., Max-Planck-Inst. für Biochem., 8033 MARTINSRIED b.München, B.R.D. (Germany)
- a Isolation of the determining principle responsible for queen bee establishment from royal jelly and from pupae and adults. *Apis mellifera* (Hymenoptera)
 - b Biochemical aspects of queen determination; comparative studies on endocrinology, enzyme activities, mitochondria, protein and nucleic acid synthesis in queens and workers. Same species as a
 - c Biochemistry and histology of juvenile hormone action in caste formation. Same species as a
 - d Biochemical function of biotin in development; metabolic studies with C14-pteridines. Same species as a
- RENKAWITZ, R.; Dipl.Biol. – Inst. für Allgem. Biol., Univ. Düsseldorf, Ulenbergstr. 127–129, 4000 DÜSSELDORF, B.R.D. (Germany)
- RENKAWITZ-POHL, Ms. R.; Dipl.Biol. – Inst. für Allgem. Biol., Univ. Düsseldorf, Ulenbergstr. 127-129, 4000 DÜSSELDORF, B.R.D. (Germany)
- RESSOUCHES (SELMÈS), Ms. A. P.; Dr.biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
- a Embryonic development. *Pisoides* spec. (Coleoptera)
 - b Ultrastructure of intracellular bacteroids. Same species as a
- REUVENI, O.; Ph.D. – Agric. Res. Org., Volcani Ctr., P.O.Box 6, BET-DAGAN, Israel
temporarily: Bot. Labs., Univ. of Leicester, Adrian Bldg., University Rd., LEICESTER LE1 7RH, England
- a Asexual reproduction by aseptic techniques. *Phoenix dactylifera* (Palmae), *Musa cavendish* (Musaceae), *Persea americana* (Lauraceae)
 - b The role of atmosphere in tissue and cell cultures
- REVERBERI, G.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- RÉVÉSZ-FERENCZY, Ms. E.; M.D. – Dept. of Anat., Div. of Appl. and Topogr. Anat., Univ. of Bern, 26 Buehlstr., CH-3012 BERN, Switzerland
- REYNAUD, G. R.; D.Sc. – Lab. de Morphogen. Exp. et Caryol., Univ. de Provence – Centre St. Charles, place Victor Hugo, 13331 MARSEILLE Cedex 3, France
- a Étude des relations entre soma et germe. (Aves)
- REYSS-BRION (DUCREAU), Ms. M.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49 bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Différenciation sexuelle; inversion du sexe après ovariectomie. *Gallus gallus*, *Coturnix c. japonica* (Aves)
- RIBBERT, D.; Dr.rer.nat. – Zool. Inst. der Univ., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)
- a Karyology and RNA spectra in egg follicle development (radio-isotopes, electrophoresis). *Calliphora erythrocephala* (Diptera)
 - b Chromosome cytology of germ line cells (polytene chromosomes). Same species as a
 - c Chromosome cytology of developing macrochaetes (trichogene cells). (Calliphorinae; Muscidae, Diptera)
 - d Disproportionate DNA replication in nurse cell nuclei of meroistic ovaries (hybridization technique). Same species as c
- RICHARD-MERCIER, Ms. N. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France

- a Control of sex differentiation. *Leptinotarsa decemlineata* (Coleoptera)
 RICHARDS, G. P. – Dept. of Genet., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EH, England
- RICHTER, K. H.; Ph.D. – Orthop. Klinik, Univ. Marburg, Schützenstr. 49, 355 MARBURG, B.R.D. (Germany)
- a Control of fibroblast proliferation by chalones. *Homo sapiens* (Primates)
 RICKENBACHER, J.; Dr.med., Prof. – Dept. of Anat., Histol., and Embryol., Univ. of Zürich, Gloriastr. 19, 8006 ZÜRICH, Switzerland
- a Functional and morphological differentiation of circulatory system. *Gallus gallus* (Aves)
 RICKWOOD, D.; Ph.D. – Dept. of Biol., Univ. of Essex, Wivenhoe Park, COLCHESTER, CO4 3SQ, England
- a Molecular aspects of development at the level of gene transcription. *Dictyostelium discoideum* (Acrasiales)
 RIEHL, R.; Dr. – Inst. für Allgem. und Spez. Zool., Stephanstr. 24, 6300 GIESSEN, B.R.D. (Germany)
- a Oogenesis, stages of oocytes, spermatogenesis (light, transmission and scanning electron microscopy, histo- and ultrahistochemistry). *Branchiostoma lanceolatum* (Cephalochordata)
 b Oogenesis, stages of oocytes, egg envelopes, follicle epithelium, formation of yolk (light and transmission electron microscopy, histochemistry, autoradiography, labelling of myofer). *Heterandria formosa* (Teleostei)
- RINALDI, Ms. A. M.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Negative nuclear control of RNA synthesis in early development. *Paracentrotus lividus* (Echinoidea)
 b Mitochondrial DNA replication. Same species as a
 c Mitochondrial RNA synthesis during development. Same species as a
- RINAUDO, M. T.; Prof. – Inst. of Biochem., Univ. of Turin, Via Michelangelo 27, 10126 TORINO, Italy
- a Protocollagen proline hydroxylase in embryonic eye, cartilage, and skin. *Gallus domesticus* (Aves)
 b B-hydroxybutyrate dehydrogenase in embryonic and neonatal brain. Same species as a
 c Glucose-6-phosphatase and fructosidiphosphatase in the embryonic heart. Same species as a
- RIPOLL, P.; Ph.D. – Sect. Devl. Genet., Inst. of Genet. CSIC, Ctr. of Molec. Biol., Univ. Autónoma de Madrid, Canto Blanco, MADRID 34, Spain
- a Clonal behaviour of zygotic lethals in imaginal discs. *Drosophila melanogaster* (Diptera)
 b Somatic cell genetics. Same species as a
- RISNES, S. – Dept. of Anat., Dent. Fac., Univ. of Oslo, P.O.Box 1052, Blindern, OSLO 2, Norway
- ROBECCHE GIACOBINI, M. G.; M.D. – Dept. of Human Anat., Univ. of Torino, Corso M.D'Azeglio 52, 10126 TORINO, Italy
- a Development of motor unit under experimental conditions (electron microscopy). *Gallus domesticus* (Aves)
 b Development of motor unit and myo-tendinous junctions under normal and experimental conditions (histochemistry, ultrastructure). Same species as a
- ROBERT, L.; M.D. – Lab. de Biochim. du Tissue Conjonct., Univ. de Paris XII, 6 rue du Gén.Sarrail, 94000 CRÉTEIL, France
- a Differentiation of mesenchymal tissues, cornea, and aorta; regulation of the biosynthesis of intercellular macromolecules: collagen, elastin, proteoglycan, and structural glycoproteins. (*Demospongiae*, *Porifera*), *Gallus domesticus* (Aves), *Mus musculus*, *Rattus spec.*, *Sus domesticus*, *Bos taurus*, *Homo sapiens* (Mammalia)
 b Molecular mechanism of cell free recognition (transplantation biology); role of structural glycoproteins. *Mus musculus* (Rodentia)
- ROBERTS, A. M.; Ph.D. – Dept. of Zool., Univ., BRISTOL BS8 1UG, England
- a Growth, anatomy and physiology of Rohon-Beard cells and sensory trigeminal ganglion cells in the embryo relating to development of behaviour. *Xenopus laevis* (Anura)
 b Organisation of hind-brain and spinal cord for the control of swimming in the late embryo (anatomy, electrical recording). Same species as a and others (Amphibia)
- ROBERTSON (PATON), Ms. E. M. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Development of imaginal buds. *Drosophila* spec. (Diptera)
- RODA, A. – Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
- a Electron microscopy of developing nervous system. *Gallus gallus* (Aves)
- RODE, B.; Ph.D., Prof. – Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, and Dept. of Pathol., Fac. of Dent., Univ. of Zagreb, "Dr. M. Stojanović", 41000 ZAGREB, Yugoslavia
- ROEST (WAGENAAR), Ms. J. A. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Light microscopy, electron microscopy, histochemistry, physiology, and experimental teratogenesis of heart development in the embryo. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with H. M. LAANE and J. A. LOS)
 b Cell interactions in the embryonic heart. *Gallus domesticus* (Aves) (with J. A. LOS)
- ROGUEDA (VIGNAU), Ms. J.; Dr.Biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Embryonic morphogenesis of the head. *Carausius* spec. (Phasmida)
 b Cephalic endocrine glands and embryonic regeneration. Same species as a (with B. FOURNIER)

- ROGULSKA, Ms. T.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak. Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Origin and fate of primordial germ cells. *Gallus domesticus* (Aves)
 - b Differentiation of the somatic and germinal tissues of the gonad. Same species as a, and *Mus musculus* (Rodentia)
 - c Regulative capacities of the embryo. Same species as a, and *Coturnix c. japonica* (Aves)
- ROHR, R.; Dr. – Lab. of Plant Cytol., Univ. of Nancy I, C.O.140, 54037 NANCY Cedex, France
- a Abnormal development of male and female gametophytes in vitro; effect of different media on growth; tissue culture of haploid and diploid callus produced by these gametophytes. *Ginkgo biloba*, *Taxus baccata* and other spp. (Gymnospermae)
- ROKYTA, R.; MUDr., CSc. – Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEN, Czechoslovakia
- a Interhemispherical connections between subcortical auditory centres, especially between medial geniculate bodies in development. *Felis domestica* (Carnivora), *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
 - b The influence of GABA (gamma-aminobutyric acid), GHB (gamma-hydroxybutyrate) and 3APS (3-aminosulphuric acid) on the cortical somesthetic response after stimulation of different parts of the somesthetic pathway during early postnatal development. *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
 - c Effect of GABA and GABA-like substances on specific and non-specific thalamocortical relations. *Rattus norvegicus* (Rodentia), *Felis domestica* (Carnivora)
- ROMANOVA, Ms. L. K.; Dr.med. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a The restoration of lungs and liver. *Mus musculus*, *Rattus norvegicus* (Rodentia)
 - b Surfactant system of lung
 - c Glycocalyx of cells
- ROMANOVSKÝ, A.; RNDr., D.Sc., Prof. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Proteins in early development. (Amphibia)
 - b Transplantation of nuclei in relation to nucleic acids and proteins. (Amphibia) (with F. SLÁDEČEK and J. NEDVÍDEK)
- ROMANOWSKA, Ms. E.; Dr. – Zool. Dept., Jagellonian Univ., Krupnicza 50, KRAKÓW, Poland
- a Oogenesis. (Apterygota, Insecta)
- ROMBOUT, J. H. W. M.; M.Sc. – Dept. of Exp. Anim. Morphol. and Cell Biol., Agric. Univ., "Zodiac", Marijkeweg, WAGENINGEN, Netherlands
- a Neural crest origin, function and regulation of endocrine cells in the intestine. *Barbus conchonius* (Teleostei)
- ROMIJN, H. J.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction of nerve cells and behaviour during maturation of the nervous system. *Discoglossus pictus*, *Rana esculenta* (Anura), *Rattus norvegicus* (Rodentia)
- RONCALI, Ms. L., M.D. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy
- a Modifications of vascular patterns during experimental twinning in the limb bud. *Gallus domesticus* (Aves)
 - b Modifications of vascular patterns following heterotopical grafts of limb bud apical ridge. Same species as a
 - c Vascular patterns of the spinal ganglia under normal and experimental conditions. Same species as a
 - d Relationships between degree of mitotic activity and denseness of vascular network under normal and experimental conditions. Same species as a
 - e Vascular patterns in the mesencephalon under normal and experimental conditions. Same species as a
 - f Vascular patterns in the cranial nerve ganglia. Same species as a
- ROOY, R. E. de; Dr. – Lab. of Med. Chem., Sylvius Labs., State Univ., Wassenaarseweg 72, LEIDEN 2405, Netherlands
- a Changes in amount and activity of the enzymes causing the synthesis and breakdown of brain lipids. *Rattus spec.* (Rodentia), *Bos taurus* (Artiodactyla), *Homo sapiens* (Primates)
- ROSATI LAMPERIELLO, Ms. F.; Prof. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy
- a Physiology of fertilization. *Ciona intestinalis*, *Ascidia malaca*, *Phallusia mammillata* (Asciidiaceae)
- ROSS, J. W. R.; B.Sc., M.B., Ch.B. – Dept. of Anat., Charing Cross Hosp. Med. Sch., Fulham Palace Rd., LONDON W6 8RF, England
- a Development of the eyelids. *Homo sapiens* (Primates)
- ROSTAND, J. – 29 rue Pradier, 92 VILLE D'AVRAY, France
- ROSTEDT, Ms. I. B.; Ph.D. – Centr. Publ. Health Lab., State Serum Inst., Mannerheimintie 166, 00280 HELSINKI 28, Finland
- a Heterogeneous inductors on embryonic ectoderm. *Gallus domesticus* (Aves)
 - b Early embryonic development including immunology. Same species as a
- ROSZCZYNSKA, Ms. G.; B.Sc. – Dept. of Pathomorphol., Inst. of Obstet. and Gynecol. Warsaw, ul.Karowa 2, 00-315 WARSZAWA, Poland
- a Mitotic activity of thymocytes and number of PAS-positive reticular cells in thymus with reference to birth weight, gestational age, postnatal period of life and associated pathology of foetus and newborn. *Homo sapiens* (Primates)
- ROTT, Ms. N. N.; Cand.biol.sci. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.

- a Changes of mitotic cycle in early embryogenesis as related to changes in ionic concentrations and intercellular communication. Misgurnus fossilis, *Salmo gairdneri*, *Cyprinus carpio* (Teleostei), *Ambystoma mexicanum* (Urodela)
- ROUSSEAU-MERCK, Ms. M. F.; Dr. 3e Cycle – Groupe de Rech. de Pathol. Pédiat., INSERM U77, Hôpital Necker Enfants Malades, 149 rue de Sèvres, 75730 PARIS Cedex 15, France
- a La différenciation et les potentialités de différenciation du néphroblastome, *Homo sapiens* (Primates): 1. associations in vitro avec des organes embryonnaires de *Gallus domesticus* (Aves) ou *Mus musculus* (Rodentia) inducteurs de l'organogénèse rénale normale; 2. mise en évidence d'antigènes particuliers aux tubes proximaux rénaux
- ROUSSEL, C.; Dr.Méd. – Lab. d'Embryol., U.E.R. Bioméd., 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
- a Mode d'action de certaines substances tératogènes (Triton WR 1339). (Mammalia)
- b Mécanismes d'action de substances embryotoxiques (transfert d'oeufs). (Rodentia) (avec L. MERCIER)
- ROUSSEV, G. K.; Dr., Prof. – Med. Res. Inst., Ovtcha Koupel, SOFIA 18, Bulgaria
- ROUX, Ch.; Dr.Méd., Prof. – Lab. d'Embryol. et de Cytogénét., Fac. de Méd. Saint-Antoine, 27 rue Chaligny, 75571 PARIS Cedex 12, France
- a Teratogenetic action of inhibitors of cholesterol synthesis. *Rattus spec.*, *Mesocricetus auratus*, *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- b Teratogenesis by irradiation. *Rattus rattus* (Rodentia)
- ROWSON, L. E. A.; F.R.C.V.S., – A.R.C. Unit of Reprod. Physiol. and Biochem., Anim. Res Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
- RUANO GIL, D.; Dr., Prof. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain
- a Development of neural retina and lens. *Gallus domesticus* (Aves)
- b Development of the ureter
- c Experiments on the development of the joints. Same species as a
- RUBTSOV, V. V. – A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave. 33, MOSCOW 117071, U.S.S.R.
- a Electron microscopy of egg membrane structure. (Teleostei)
- RUCH, J. V.; Dr.Méd., D.Sc., Prof. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France
- a Epithelial-mesenchymal interactions, mitosis, and differentiation in teeth. *Mus musculus* (Rodentia)
- RUNN, P.; Fil.kand. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Morphological aberrations in embryos exposed to pollutants. (Teleostei)
- RUSSO-CAIA, S.; Prof. – II. Chair of Histol. and Embryol., Fac. of Sci., Univ. of Roma, Città Universitaria, 00100 ROMA, Italy
- a Cytochemistry and autoradiography of mesonephros regression. (Aves; Mammalia)
- b Mechanism of metamorphosis: histolysis, especially lysosomal enzymes. *Musca domestica* (Diptera)
- c Ultrastructural observations on the presence of juxtaglomerular cells in the embryonic kidney. Same species as a
- d Cytochemistry and autoradiography of oogenesis, especially nucleic acid metabolism in nurse cells. (Diptera; Coleoptera)
- e Cytochemistry of lymphatic organs. (lower Vertebrata)
- RUSU, Ms. V. M. – Biol. Res. Cr., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania
- a Influence of unusual incubation temperature on development of antibody forming cells. *Gallus spec.* (Aves)
- RYABININA, Ms. Z. A.; Cand.biol.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a Regeneration of inner organs. *Mus musculus*, *Rattus norvegicus* (Rodentia)
- RYBERG, Ms. E.; M.Sc. – Wenner-Gren Inst. for Exp. Biol., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
- a Histochemistry and histology of an impulse conducting system in the pluteus. *Psammechinus miliaris* (Echinoidea)
- RYCZKOWSKI, M.; Doc., Dr. – Lab. of Plant Physiol., Inst. of Molec. Biol., Jagellonian Univ., Grodzka 53, 31-001 KRAKÓW, Poland
- a Respiration rate (Q02) of the developing fruit, ovule, embryo, coat and endosperm tissue in different environments. (Angiospermae)
- b Quantitative and qualitative changes of the pigments in the developing embryo. (Angiospermae)
- c Concentration gradients of low molecular compounds in the developing ovule. (Angiospermae)
- RYFFEL, G. U.; Ph.D. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahlstr. 8, 3012 BERN, Switzerland
- a Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. *Xenopus laevis* (Anura) (with R. WEBER)
- RYLAND, J. S.; Ph.D. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.
- RZEHAŁ, K.; Ph.D. – Dept. of Biol. and Embryol., Med. Acad., ul.Kopernika 7, 31-034 KRAKÓW, Poland
- a Movements of pigment and cytoplasm after fertilization. (Anura) (with G. A. UBBELS, Utrecht)
- b Cytokinesis of cleaving eggs. (Amphibia)
- c Teratogenic effects of insecticides. (Anura)

- SAAG, P. T. van der; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaan 8, 3584 CT UTRECHT, Netherlands
- a Biosynthesis of soluble proteins in early development (isoelectric focusing, autoradiography). (Amphibia) (with S. K. BRAHMA, State Univ. of Utrecht)
 - b Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, *Mus musculus* (Rodentia) (with J. G. BLUEMINK, S. W. de LAAT, W. H. MOOLENAAR and S. A. NELEMANS)
- SABBADIN, A.; Dr., Prof. – Ist. di Biol. Anim., Univ di Padova, Via Loredan 10, 35100 PADOVA, Italy
- a Germ cell origin and differentiation. *Botryllus schlosseri* (Ascidiae)
- SABELLI, B.; Dr. – Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLOGNA, Italy
- a Oogenesis in parthenogenetic and amphigonic eggs. *Daphnia* spec. (Cladocera, Crustacea)
 - b Regeneration and origin of germ cells. *Mercierella enigmatica* (Serpulidae, Polychaeta)
 - c Origin of germ cells and sex differentiation. *Sphaerium corneum* (Lamellibranchia), *Goniodiscus rotundatus* (Gastropoda)
- SACARRÃO, G. da FONSECA; D.Sc., Prof. – Fac. de Ciênc., Museu Bocage, Ruada Escola Politécnica, LISBOA-2, Portugal
no work on developmental biology in progress
- ŠAFANDA, J.; ing.chem. – Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEŇ, Czechoslovakia
- a Characteristics of the transport of 4-aminobutyric acid in developing brain. *Rattus* spec. (Rodentia)
- SAKUN, Ms. O. F.; Cand.biol.sci. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
- a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
- SALA, M.; Dr.biol., Prof. – Ist. di Biol. Anim., Univ di Padova, Via Loredan 10, 35100 PADOVA, Italy
- a Embryonic and adult hemoglobin. (*Anura*; Urodela)
 - b Developmental variations in parabiotic twins. *Rana dalmatina*, *R. esculenta* (*Anura*)
 - c Molecular aspects of neural induction. (Urodela)
 - d Effect of some drugs on early embryonic development. (Amphibia)
- SALAMATINA, Ms. N. V. – Dept. of Gerontol., Inst. of Exp. Morphol., Acad. of Sci. of the Georgian SSR, Digomi, TBILISI 380059, U.S.S.R.
- a Role of chemical intercellular interactions in the regulation of the rate of cell multiplication and intracellular synthesis, studied in cell cultures and in vivo. *Gallus domesticus* (Aves), *Rattus norvegicus*, *Mus musculus* (Rodentia)
 - b Cytogenetics of aged persons. *Homo sapiens* (Primates)
- SALAÜN, Ms. J.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Formation expérimentale d'embryomes homoplastiques et hétéroplastiques. *Gallus gallus* (Aves), *Rattus rattus* (Rodentia)
 - b Influence réciproque des cellules cancéreuses et embryonnaires réunies sur un même hôte. *Rattus rattus*, *Mus musculus* (Rodentia)
 - c Les capacités de différenciation des cellules embryonnaires et des cellules du tératocarcinome de Stevens. (Mammalia)
- SALMONS, S.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a The part played by impulsive activity in the late stage of differentiation of fast and slow skeletal muscle (electronic stimulators; physiology, biochemistry, and histochemistry). *Oryctolagus cuniculus* (Lagomorpha)
- SALONEN, J. E. K.; B.M. – Lab. of Exp. Embryol., III.Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with L. O. SAXÉN, J. J. WARTIOVAARA, E. LEHTONEN, S. NORDLING, and P. EKBLOM)
- SALVADOR, G. F.; Dr.-Ing. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Control of delta-aminolevulinic acid synthesis during chloroplast morphogenesis. *Euglena gracilis* (Euglenophyceae)
- SALVATORELLI, G.; Ph.D., Prof. – Ist. di Anat. Comp., Univ. di Ferrara, via L. Borsari 46, 44100 FERRARA, Italy
- a Factors in foetal erythropoiesis. *Gallus domesticus* (Aves)
 - b Erythropoiesis and leucopoiesis during metamorphosis. *Bufo bufo* (Anura)
 - c Embryonic and foetal erythropoiesis. *Cavia porcellus* (Rodentia)
 - d Purification and chemical identification of erythropoietic factor in embryonic liver extracts. Same species as a
- SALZGEBER, Ms. B.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Étude des effets tératogènes (malformations de membres) obtenus 1) par l'ypérite azotée (chloréthylamine), 2) par la thalidomide (phtalimidoglutarimide). *Gallus* spec. (Aves)
 - b Recherches sur la genèse des malformations de membres. *Gallus domesticus* (Aves)
- SAMARUT, J.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Development of haemopoietic stem cells. *Gallus domesticus* (Aves)

- SANDER, K.; Ph.D., Prof. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
- a Early stages of embryogenesis: epigenetics of segment pattern, blastokinesis. *Euscelis plebejus* (Cicadina, Homoptera), (Chironomidae, Diptera)
 - b Developmental physiology of embryonic mycetomes. *Euscelis plebejus* and other spp. (Cicadina, Homoptera)
- SANDOR, S.; Dr.med. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIȘOARA, Rumania
- a Experimental teratology and teratological screening. *Rattus norvegicus*, *Mus musculus* (Rodentia)
 - b Development of embryonic axial organs (somitogenesis). *Gallus domesticus* (Aves)
- SANFO, S.; M.Sc. – Lab. de Morphogen. Végét., Univ.d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
- a Control of leaf growth and of leaf sensibility to various inhibitors according to developmental stage. *Gleditsia triacanthos* (Leguminosae)
- SANTAMARIA, P.; Ph.D. – Biol. Inst. I (Zool.), Albertstr. 21a, 7800 FREIBURG, B.R.D. (Germany)
- a Analysis of wing development in scalloping mutants by means of somatic recombination: allele homozygosity at different times of development, and clonal analysis of the mutant wing. *Drosophila melanogaster* (Diptera)
 - b Analysis of embryo development by means of nuclear transplantation. *Drosophila melanogaster*, *D. simulans*, *D. erecta*, *D. subobscura* (Diptera)
- SANTORO D'ANGELO, Ms. L.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
- a Effects of gravity acceleration during growth of primary root. *Vicia faba* (Papilionaceae)
 - b Effects of l-asparaginase, strychnine, and veratrum during embryonic development. *Rana esculenta*, *Bufo vulgaris* (Anura)
 - c Effect of food dyes on embryos. *Xenopus laevis* (Anura)
- SANYAL, S.; Ph.D. – Dept. of Anat., Erasmus Univ., Postbox 1738, ROTTERDAM 3002, Netherlands
- SAUER, H. W.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)
- a Activities of isolated and endogenous nuclear RNA polymerases in relation to differential transcription in the developmental cycle. *Physarum polycephalum* (Eumycetozoa)
 - b Replication-transcription coupling in the mitotic cycle. Same species as a
- SAUNDERS, D. S.; Ph.D. – Dept. of Zool., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JT, Scotland, U.K.
- SAUSSEY, M.; D.Sc., Prof. – Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
- a Regeneration, sexuality and diapause. *Allolobophora icterica*, A. spp. (Oligochaeta)
- SAUZIN-MONNOT, Ms. M. J. – Lab. de Biol. Anim. A, Fac. des Sci., Univ. Paris-Sud, Bât.445, 91405 ORSAY, France
- SAXÉN, L. O.; M.D., Phil.lic., Prof. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with J. J. WARTIOVAARA, E. LEHTONEN, S. NORDLING, P. EKBLOM and J. SALONEN)
- SAXOD, R.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France
- a Experiments on the differentiation of cutaneous sensory corpuscles. *Gallus domesticus*, *Anas platyrhynchos* (Aves), *Mus musculus*, *Rattus rattus* (Rodentia)
 - b Development of cutaneous nerve supply and nerve compensation; neurotaxis. *Gallus domesticus* (Aves)
 - c In vitro associations of spinal ganglia and dermal mesenchyme for the study of development of cutaneous sensory end organs. Same species as a
- SAZHINA, Ms. M. V.; Cand.biol.sci. – Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of the USSR, Profsojuznaya St. 7 (I) MOSCOW 117312, U.S.S.R.
- a Developmental study of mutant gene effects on cell proliferation and differentiation. *Mus musculus* (Rodentia)
- SCARANO, E. – Lab. Intern. di Genet. e Biofis., Via G. Marconi 10, 80125 NAPOLI, Italy
- SCHÄFER, U. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Gene physiology, Y chromosome. *Drosophila* spp. (Diptera)
 - b Genetic regulation of differentiation; male germ line cells. *Drosophila hydei*, *D. neohydei* (Diptera)
 - c Magnification of ribosomal RNA genes in the Y chromosome. *Drosophila hydei* (Diptera)
- SCHARŁOO, W.; Ph.D., Prof. – Dept. of Popul. and Evol. Biol., Genet. Inst., State Univ., Transitorium III, Padualaan 8, UTRECHT, Netherlands
- SCHEDL, P.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Determination of imaginal discs using *Drosophila/Col E1* plasmid hybrids. *Drosophila melanogaster* (Diptera)
- SCHEIB (PFLEGER), Ms. D.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Experimental intersexuality: conditions and mechanism of transformation of male gonads by oestrogens and of female right gonads by ovariectomy. *Gallus domesticus*, *Coturnix c. japonica* (Aves)

- b Radioimmunoassay of in vitro steroid biosynthesis by embryonic gonads; experimental control. Same species as a
SCHELLER, K.; Ph.D. – Physiol.-Chem. Inst. I, Univ. Marburg, Lahmberge, 355 MARBURG 1, B.R.D. (Germany)
- a Changes in the developmental-physiological competence of fat body nuclei during postembryonic development; influence of ecdysteroids and juvenile hormone on the regulation of transcription; changes in gene expression during larval development. *Calliphora erythrocephala* (Diptera)
SCHERFT, J. P.; M.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Development and early stages of calcification of the diaphyseal bone collar of radii in 14-18-day-old embryos (electron microscopy). *Mus musculus* (Rodentia)
SCHERINI, Ms. E. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
- a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). *Rattus rattus* (Rodentia)
b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)
SCHERRER, K.; Dr., Prof. – Inst. de Rech. en Biol. Mol. du C.N.R.S., Univ. Paris VII, 2 place Jussieu (Tour 43), 75221 PARIS Cedex 05, France
- a Transcription of the globin genes in early development. *Gallus domesticus* (Aves)
b Abortive transcription of globin genes in erythroleukaemic cells. Same species as a
c Gene transcription in oocytes. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- SCHIEBLER, Th. H.; Dr.med., Prof.** – Dept. of Anat., Univ. of Würzburg, Koellikerstr. 6, 87 WÜRZBURG, B.R.D. (Germany)
- a Chemo-differentiation of different parts of the brain (e.g. nucleus ruber) by enzyme-histochemical and experimental methods. *Rattus norvegicus* (Rodentia)
b Development of the terminal vascular bed of the heart. *Rattus norvegicus* (Rodentia)
c Electron microscopy of the full-term placenta. *Homo sapiens* (Primates)
SCHILT, J.; D.Sc. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
- a Role of nervous system in pharynx induction. *Dugesia lugubris* (Turbellaria)
b Roles of territory and nervous system in regeneration. Same species as a
SCHLOOT, W.; Dr.rer.nat., Prof. – Inst. für Genet. und Humangenet., Univ. Bremen, Achterstr. NW2, 2800 BREMEN 33, B.R.D. (Germany)
- a Developmental genetics of various enzymes; prenatal diagnosis: genetic counselling. *Homo sapiens* (Primates)
b Influence of psychotropic drugs and metabolism in embryogenesis. *Oryctolagus cuniculus* (Lagomorpha)
- SCHMID, V. S.; Dr.phil.** – Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- a Differentiation potentialities of cells. (Hydrozoa)
b Tissue stability and metaplasia in the development of medusae buds. *Podocoryne carneata* (Hydrozoa)
c Factors controlling regeneration in medusae. (Hydrozoa)
- SCHMIDT, E. R.; Dr.** – Abt. Biol., Arb.gr. Entw.physiol. der Tiere, Ruhr-Univ., 4630 BOCHUM, B.R.D. (Germany)
- a Substructure of chromatin by enzyme degradation techniques. *Ephestia kuhniella* and other spp. (Lepidoptera)
b DNA and nuclear RNA in chromatin fractions. Same species as a
SCHMIDT, G. A.; Dr.biol., Prof. – A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.
- a Embryology. *Camelus bactrianus* (Artiodactyla)
b Factors of ontogenesis; evolution. Placentalia (Mammalia)
- SCHMIDT, G. H.; Dr.rer.nat., Prof.** – Inst. für Pflanzenkrankh. und Pflanzenschutz, Tech. Univ., Herrenhäuser Str. 2, 3 HANNOVER-Herrenhausen, B.R.D. (Germany)
- a Postembryonic development. several spp. (Orthoptera), *Formica polyctena*, *F. pratensis* (Hymenoptera) and others
b Caste determination. *Formica* spec. and others (Formicoidea, Hymenoptera)
- SCHNETTER, W.; Dr.rer.nat.** – Physiol. Lehrst., Zool. Inst. der Univ., Im Neuenheimer Feld 230, 69 HEIDELBERG, B.R.D. (Germany)
- a Early embryology. *Leptinotarsa decemlineata* (Coleoptera)
b Morphogenetic function of egg components; transplantation of nuclei and ooplasm. Same species as a
c Synthesis of RNA and protein during early embryogenesis. Same species as a
SCHOELLER (RACCAUD), Ms. J.; D.Sc., Prof. – Lab. de Physiol. des Insectes, Univ. Paris VI, 7 quai Saint Bernard, 75230 PARIS Cedex 05, France
- a Expériments sur la céphalogenèse larvaire et imaginaire. *Calliphora* spec. (Diptera)
b Etat de détermination des disques imaginaires. *Calliphora erythrocephala* (Diptera)
c Embryogénèse de mutants léthaux. *Drosophila* spec. (Diptera)
- SCHOPFER, P.; Dr.rer.nat., Prof.** – Biol. Inst.II der Univ., Lehrst. für Bot., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)
- a Physiological and molecular study of the control mechanisms involved in photomorphogenesis of seedlings. *Sinapis alba* (Cruciferae)
- SCHOUTEN, S. C. M.; Drs.** – Dept. of Popul. and Evol. Biol., Genet. Inst., State Univ., Transitorium III, Padualaan 8, UTRECHT, Netherlands

- SCHOWING, J.; D.Sc., Prof. – Dépt. d'Embryol. et Tératol. Exp., Inst. de Biol. Anim., Fac. des Sci., Univ. de Fribourg, 1700 FRIBOURG, Switzerland
- a Morphogenèse du crâne et induction céphalique. *Gallus gallus* (Aves)
 - b Action des alcaloïdes de liliacées sur la morphogenèse de la tête. *Gallus gallus* (Aves), *Mus musculus* (Rodentia)
 - c Lésions par substances toxiques. Espèces comme b
- SCHRAUWEN, J. A. M.; Drs. – Dept. of Bot., Sect. Molec. Developm. Biol., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Interaction processes after fusion of different strains. *Physarum polycephalum* (Myxomycetes)
- SCHROEDER, H. E.; Dr.med.dent., Prof. – Zahnärztl. Inst., Abt. Orale Strukturbiol., Univ. Zürich, Plattenstr. 11, 8028 ZÜRICH, Switzerland
- a Development of oral tissues, especially tooth papilla, pulp and mucous membrane (microscopy, stereology, 3-dimensional reconstructions). *Homo sapiens* (Primates)
- SCHULTHEISS, H.; Dr. – Zool. Inst.II, Univ. (T.H.) Kaiserstr. 12, Postfach 6380, 75 KARLSRUHE 1, B.R.D. (Germany)
- a Regulation of nitrogen metabolism by hormones during metamorphosis. *Ambystoma* spec. (Urodea), *Xenopus laevis* (Anura)
 - b Regulation of the skin diffusional permeability to water by hormones during metamorphosis. Same species as a
 - c Hormonal regulation of thyroid activity. *Ambystoma mexicanum* (Urodea)
- SCHUMACHER, G. H.; Dr.sc.med., Dr.med.dent., Prof. – Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr. 9, 25 ROSTOCK 1, D.D.R. (Germany)
- SCHÜPBACH, Ms. T. – Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- a Fate map of the genital disc in gynandromorphs. *Drosophila melanogaster* (Diptera)
 - b Larval hypoderm in gynandromorphs. Same species as a
- SCHÜRMANN, F. W.; Dr. – Lehrst. Exper. Morphol., Zool. Inst. der Univ. zu Köln, Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Metamorphosis of the brain: growth of mushroom bodies, synaptogenesis. *Apis mellifera* (Hymenoptera)
 - b Regeneration of motor neurons and sensory cells. *Acheta domesticus*, *Gryllus campestris* (Orthoptera)
- SCHWARTZ, V.; Dr.rer.nat., Prof. – Wolfgang Stock Str. 2, 7400 TÜBINGEN, B.R.D. (Germany)
- a Development of macronuclear anlagen. *Paramecium bursaria* (Ciliata)
- SCHWEIGER, H. G.; Dr.med., Prof. – Max-Planck-Inst. für Zellbiol., Anton-Dohrn-Weg, Postfach 1009, 294 WILHELMSHAVEN, B.R.D. (Germany)
- a Biochemical aspects of nucleo-cytoplasmic interrelationships. *Acetabularia* spec. (Chlorophyceae)
 - b Autonomy of chloroplasts. (Algae)
 - c RNA synthesis in nucleate and anucleate cells. (Algae)
 - d Cooperation between different subcellular components in morphogenesis. (Algae)
- SCHWOCHAU, M. E.; Dr.rer.nat., Prof. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
- a Molecular biology and genetics of the Y-chromosome. *Drosophila* spp. (Diptera)
- SCONZO, Ms. G. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a RNA synthesis in early development. *Paracentrotus lividus* (Echinoidea)
 - b Giant RNA in the cytoplasm of embryos. Same species as a
 - c "Capping" of RNA. Same species as a
- SCOPELLITI, R.; Dr.Biol.Sci. – Ist. di Zool. "F. Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
- SCRIBA, M. E. L.; Ph.D., Prof. – Inst. für Zool., Rhein.-Westf.-Techn. Hochschule, Kopernikusstr. 16, 51 AACHEN, B.R.D. (Germany)
- a Developmental abnormalities caused by lethal factors. *Drosophila melanogaster* (Diptera)
 - b Comparative histology of cortical granules in oocytes. (Teleostei)
- SEARLE, R. F.; Ph.D. – Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England
- a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
 - b Biology of the trophoblast. Same species as a
 - c Early embryonic development. *Mus musculus* (Rodentia)
- SEDDON, B.; Ph.D. – Dept. of Devl. Biol., Marischal Coll., Aberdeen Univ., ABERDEEN AB9 1AS, Scotland, U.K.
- a Sporulation characteristics in wild-type and antibiotic-negative mutants. *Bacillus brevis* (Bacteria)
- SEDLÁČEK, J.; M.D., Ph.D. – Res. Lab. of Psychiat., Div. of Embryophysiol. CNS, Charles Univ., Albertov 5, 12800 PRAHA 2, Czechoslovakia
- a Development of spontaneous and evoked phasic activity and of central excitation and inhibition in the central nervous system in the prenatal period. (Aves)
 - b Neuropharmacology of embryonic spontaneous motility. (Aves)
- SEICHERT, V.; MUDr. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
- a Experimental analysis of limb formation. *Gallus domesticus* (Aves)
- SEIDEL, F.; Dr.phil., Prof. (Emer.) – Zool. Inst. der Univ., Ketzerbach 63, 355 MARBURG/Lahn, W.Germany
- SEKERIS, C. E.; Ph.D., Prof. – Inst. of Cell Res., German Canc. Res. Ctr., Im Neuenheimer Feld 280, Postfach 101949, 69 HEIDELBERG 1, B.R.D. (Germany)

- a Transcription of chromatin from epidermis by insect DNA-dependent RNA polymerases.
 Calliphora erythrocephala (Diptera)
 b Translation of mRNA in an homologous in vitro system. same species as a
 c In vivo and in vitro synthesis of calliphorin and drosophilin: regulation of specific mRNA levels.
 (Diptera)
- SELLENS, M. H.; Ph.D. – Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England
 a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
 b Biology of the trophoblast. Same species as a
 c Early embryonic development. *Mus musculus* (Rodentia)
- SELLFR, Ms. M. J.; Ph.D. – Paediat. Res. Unit., Guy's Hosp. Med. Sch., Guy's Tower, LONDON SE1 9RT, England
 a Experimental teratology. (Mammalia)
 b Experimental production of chimaeras by tissue transplantation. Same species as a
 c Alpha-fetoproteins. *Homo sapiens* (Primates)
 d Genetics and aetiology of neural tube defects in the curly-tail mutant. *Mus musculus* (Rodentia)
- SELMAN, G. G.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Ultrastructural and experimental studies of cleavage and morphogenesis. *Triturus alpestris* (Urodea), *Xenopus laevis* (Anura)
- SEMBRAT, K.; Ph.D., D.Sc., Prof. (Emer.) – Inst. of Zool., Univ. of Wrocław, ul. Sienkiewicza 21, 50-335 WROCŁAW, Poland
 a Cytology and cytochemistry of partial metamorphosis. *Triturus* spec. (Urodea)
 b Cytology and cytochemistry of gametogenesis. *Embletonia pallida* (Opisthobranchia, Gastropoda)
- SENATORI, Ms. O.; Dr.biol.sci. – Ist. di Zool. "F. Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
 SENGEL, Ph.; D.Sc., Prof. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France
 a Mechanisms of feather pattern development. *Gallus domesticus* (Aves)
 b Ultrastructure of skin development and feather keratins. Same species as a
 c Behaviour of cultured embryonic dermal and epidermal cells. Same species as a
 d Scanning electron microscopy of dermal and epidermal cell morphology and contacts during feather development. Same species as a
- SENTIN, P.; Dr.méd., D.Sc., Prof. – Lab. d'Histol. et d'Embryol., Univ. de Montpellier, 2 rue Ecole de Médecine, 34060 MONTPELLIER Cedex, France
 ŠERMAN, D.; D.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Foetal proteins in differentiation. *Rattus norvegicus* (Rodentia) (with N. ŠKREB)
 b Protein patterns in embryo-derived teratocarcinomas and in host serum (polyacrylamide electrophoresis). *Mus musculus* (Rodentia)
 c Alphafetoprotein, lactate dehydrogenase, cytosol and chromosomal proteins during intrauterine development. *Homo sapiens* (Primates)
- SERRANTINO (DI DINO), Ms. G.; Dr.rer.nat. – Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
 a Development of the ciliary ganglion in normal and anencephalic embryos. *Homo sapiens* (Primates)
- SERRI, F.; M.D., Prof. – Dept. of Dermatol., Univ. of Pavia, Policlinico S. Matteo – P. le Golgi, 27100 PAVIA, Italy
 a Development of the hair. *Homo sapiens* (Primates)
- ŠEVALJEVIĆ (MIRKOVIĆ), Mrs. Lj.; Ph.D. – Lab. of Developm. Biochem., Inst. for Biol. Res., 29 Novembra 142, 11050 BEograd, Yugoslavia
- ŠEVČENKO, Ms.G.; MUDr. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
 a Development and cytodifferentiation of the oesophageal epithelium (light and electron microscopy). *Rattus rattus* (Rodentia)
- SEYDEWITZ, H. H.; Dr. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
 a Relations between electrolyte milieu and gene activities in giant chromosomes; electrophysiology, especially ion sensitive electrodes. *Chironomus thummi* (Diptera)
- SHERBET, G. V.; Ph.D. – Dept. of Biochem. Pathol., Univ. Coll. Hosp. Med. School, University St., LONDON WC1E 6JJ, England
 a Morphogenetic effects of follicle-stimulating hormone. *Gallus domesticus* (Aves) (with M. S. LAKSHMI)
 b Biochemical and biophysical characterization of the cell surface using natural pH gradients. (with M. S. LAKSHMI)
 c Epigenetic mechanisms and paraneoplastic phenomena. (with M. S. LAKSHMI)
- SHMUKLER, J. B. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a Role of serotonin in intercellular connections during cleavage divisions. *Scaphchinus mirabilis* (Echinoidea) (with G. A. BUZNIKOV)
- SHORO, A. A.; Ph.D. – Dept. of Anat., St. Thomas's Hosp. Med. School, LONDON SE1 7EH, England

- a Production of limb deformities and growth retardation in the fetus with neuromuscular blocking agents. *Rattus norvegicus* (Rodentia)
- b Role of the amniotic fluid & fetoprotein in the prenatal diagnosis of neural tube defects. *Homo sapiens* (Primates)
- SICHARULIDZE, Ms. T. A.; Cand.biol.sci. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.
- SIDOROVA, Ms. V. F.; Dr.Biol. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- a Growth and regeneration of the inner organs and their regulation. *Oryctolagus cuniculus* (Lagomorpha), *Mus musculus*, *Rattus norvegicus*, *Mesocricetus auratus* (Rodentia)
- SIEBERŠ, A. M.; Drs. – Bot. Lab., State Univ., Nonnensteeg 3, LEIDEN, Netherlands
- SIETSMAN, J. H.; Dr. – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands
- a Composition of the cell wall (chemical analysis, enzymatic degradation) in relation to development. *Schizophyllum commune* (Basidiomycetes, Fungi)
- b Biochemistry of wall formation. Same species as a
- SIEVERS, J.; Dr.med. – Abt. Neuroanat., Anat. Inst. der Univ., Martinstr. 52, 2000 HAMBURG 20, B.R.D. (Germany)
- a Ultrastructure of brain and retina development. *Rattus spec.* (Rodentia)
- b Development of monoamine containing neurons. Same species as a
- SIEWING, R.; o.Prof. – I. Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)
- a Development of body segmentation. (Brachiopoda, Phoronidea)
- b Metamorphosis. *Actinotrocha spec.* (Phoronidea) '
- SIGNORET, J.; D.Sc., Prof. – Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
- a La cinétique cellulaire au cours de la segmentation; modalités, déterminisme, signification. *Ambystoma mexicanum* (Urodela)
- b Study of nuclear differentiation and specific activities by means of nuclear transplantation. Same species as a
- SIMKISS, K.; Ph.D., Prof. – Dept. of Zool., Univ. of Reading, READING RG6 2AJ, England
- a Calcium pumps in the chorioallantoic membrane and their role in transporting ions from eggshell to embryo. *Gallus domesticus* (Aves)
- b Electrolyte movements from chorion and from allantoic fluid to blood. Same species as a
- c Lysosomal activity in extra-embryonic membranes. Same species as a
- SIMOLA, Ms. L. K.; Prof. – Dept. of Bot., Univ. of Helsinki, Unionkatu 44, 00170 HELSINKI 17, Finland
- a Effect of light and plant hormones on development. *Sphagnum fimbriatum*, *S. majus* (Musci)
- b Effect of heavy metals, arsenate and fluoride on growth and fine structure. *Sphagnum nemoreum*, *S.fimbriatum* (Musci)
- SIMPSON, Ms. P.; B.Sc. (Hons.) – Centre de Génét. Moléc., C.N.R.S., 91190 GIF-sur-YVETTE, France
- a Temperature-sensitive mutations blocking clone development in imaginal discs, including t.s. cell lethals and mutations affecting the rate of cell division. *Drosophila melanogaster* (Diptera)
- SINDEN, R. E.; Ph.D. – Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks. SL5 7DE, England
- a Cytology of gametogenesis and invasion mechanisms. *Plasmodium spp.* (Sporozoa)
- SISTO DANEÓ, Ms. L. – Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeffio 52, 10126 TORINO, Italy
- a Early neuro-muscular contacts "in vivo" and "in vitro". *Gallus domesticus* (Aves)
- SKOBELINA, M. N. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Effect of gonadotropins and changes in the germinal vesicle and in the oocyte cytoplasm during maturation. (Acipenseridae, Chondrostei; Amphibia) (with T. B. AISENSTADT)
- b Role of karyoplasm in the formation of the mature egg properties. *Acipenser stellatus* (Chondrostei), *Misgurnus fossilis* (Teleosteii), *Rana temporaria*, *Bufo spec.* (Anura)
- c Mechanism of action of gonadotrophic hormones. Same species as b
- ŠKREB, N.; M.D., D.Sc., Prof. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Early differentiation; transplantation, in vitro culture. *Rattus norvegicus* (Rodentia) (with B. LEVAK, L. HOFMAN, V. CRNEK and A. ŠVAJGER (Inst. of Histol. and Embryol.))
- b Analysis of soluble proteins in organogenesis, and of foetal proteins in differentiation. Same species as a (with D. ŠERMAN)
- c Differentiation of early postimplantation stages under the kidney capsule, teratocarcinogenesis, nature of embryonal carcinoma cells; transplantation, electron microscopy. *Mus musculus*, *Rattus norvegicus* (Rodentia) (with V. CRNEK)
- SLABÝ, O.; D.Sc., Prof. – Inst. of Histol. and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEN, Czechoslovakia
- a Development of the nasal capsule from an evolutionary standpoint. (Amniota, incl. *Homo sapiens*)
- SLÁDEČEK, F.; RNDr., D.Sc., Prof. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
- a Transplantation of nuclei in relation to nucleic acids and proteins. (Amphibia) (with J. NEDVÍDEK and A. ROMANOVSKÝ)

- b Cell division in relation to cell determination. (Amphibia)
SLÍPKA, J.; Dr.Med., Dr.rer.nat., C.Sc. – Inst. of Histol. and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEŇ, Czechoslovakia
- a The development and teratology of the branchial region. (Amniota, incl. Homo sapiens)
ŚLIWA, L., M.Sc. – Dept. of Biol. and Embryol., Med. Acad., ul.Kopernika 7, 31-034 KRAKÓW, Poland
- a Neurohormonal control of regeneration. *Triturus vulgaris*, *T. alpestris* (Urodela)
SMART, I. H. M.; M.B., Ch.B. – Dept. of Anat., Med. Sci. Inst., Univ. of Dundee, Hawkhill, DUNDEE DD1 4HN, Scotland, U.K.
- a Mapping of forebrain at different development stages. *Mus musculus* (Rodentia)
SMIRNOVÁ, Ms. E. I.; Cand.biol. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
- a Influence of different agents on embryogenesis. (Mammalia)
SMITH, E. J. C.; Ph.D. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Protein kinases in the developing kidney. *Gallus gallus* (Aves)
b Biochemistry of the differentiation of the autonomic nervous system. *Gallus gallus*, *Coturnix c. japonica* (Aves)
- SMITH, Ms. G.; Ph.D. – Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England
- a Immunology of reproduction. *Mus musculus* (Rodentia), *Homo sapiens* (Primates)
b Biology of the trophoblast. Same species as a
c Early embryonic development. *Mus musculus* (Rodentia)
- SMITH, J. L.; B.Sc. – Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O.Box 147, LIVERPOOL L69 3BX, England
- a Factors affecting aggregation of early embryonic cells (electron microscopy). *Xenopus laevis* (Anura)
- SMYTH, J. D.; Sc.D., Prof. – Dept. of Zool. & Appl. Entomol., Imp. Coll. of Sci. & Technol., Prince Consort Rd., LONDON SW7 2BB, England
- a In vitro differentiation. *Echinococcus granulosus* and other spp. (Cestoda)
- SNOW, M. H. L.; Ph.D. – MRC Mammalian Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
- a Differentiation in preimplantation stages (1 to 150 cells) in vivo and in vitro. *Mus musculus* (Rodentia)
b Effects of heteroploidy, especially on embryonic development. Same species as a
c Differentiation of post-implantation stages, up to 8d gestation. Same species as a
d Chromosome behaviour in embryos up to 8d gestation. Same species as a
- SOBIS, Ms. H.; M.D. – Rega Inst., Cath. Univ., Minderbroederstr. 10, 3000 LEUVEN, Belgium
- a Teratomas induced by displacement of visceral yolk sac. *Rattus spec.*, *Mus musculus*, *Mesocricetus auratus* (Rodentia)
b Yolk sac carcinoma and virus induced embryological carcinomas. *Rattus spec.* (Rodentia)
- SOBOTKA, P.; M.D., CSc. – Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEŇ, Czechoslovakia
- a Influence of amino acids, newly synthesized drugs, and other substances on electrogenesis of the central nervous system during early postnatal development. *Rattus norvegicus* (Rodentia)
- SOFKARJO, R.; Dr. – Limnol. Inst., Rijksstraatweg 6, NIEUWERSLUIS, Netherlands
- SOLA, Ms. L. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy
- a Chromosomal aspects of sex inversion. (Sparidae, Teleostei)
- SOLOGUB, Ms. A. A.; Cand.biol.scii. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a Stimulation of metaplasia of the pure pigmented epithelium of adults into retina by means of agents from newly differentiated retina. (Cyprinidae, Teleostei), *Oryctolagus cuniculus* (Lagomorpha), *Mus musculus* (Rodentia) (with G. V. LOPASHOV)
- SOLOMON, J. B.; Ph.D., D.Sc. – Immunol. Unit, Dept. of Bacteriol., Univ. of Aberdeen, Foresterhill, ABERDEEN AB9 2ZD, Scotland, U.K.
- a Onset of immunocompetence. *Rattus norvegicus*, *Cavia porcellus* (Rodentia)
b Immunological aspects of insulin therapy in diabetic pregnancies. *Cavia porcellus* (Rodentia), *Homo sapiens* (Primates)
- SOLTYSKA, Ms. M.; Dr. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak.Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
- a Cell differentiation in development. (Trematoda)
- SOYEZ, D.; D.E.A. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Biochemical characterization of a molt-inhibiting substance from eyestalks. *Pandalus jordani* (Decapoda, Crustacea), *Orchestia gammarellus* (Amphipoda, Crustacea)
- SPINELLI, G.; Prof. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a Regulation of transcription of histone genes at different stages of development. *Paracentrotus lividus* (Echinoidea)
- SPORNITZ, U. M. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland
- a Oogenesis and early degeneration of eggs. (Amphibia)
b Development of liver and hepatic lymphoid tissue. *Xenopus laevis* (Anura)
- SPREY, Th. F.; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands

- a Differentiation and development of imaginal discs: 1. histochemistry; 2. pattern formation. *Calliphora erythrocephala*, *Drosophila melanogaster* (Diptera)
- SREBRO, Z.; M.D.; Ph.D., Prof. – Dept. of Biol. and Embryol., Acad. of Med., ul.Kopernika 7, 31-034 KRAKÓW, Poland
- a Neurohormonal control of regeneration. *Triturus vulgaris*, *T. alpestris* (Urodela)
- STABELLINI, Ms. G. – Inst. of Histol. and Gen.Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
- a Epithelio-mesenchymal interactions in lung and skin morphogenesis in vitro. *Gallus domesticus* (Aves)
- STAGNI, Ms. A.; Dr., Prof. – Inst. of Zool., Univ. of Bologna, Via S.Giacomo 9, 40126 BOLOGNA, Italy
- a Sex determination and sex differentiation. *Chlorohydra viridissima* (Hydroidea)
- b Cytochemistry and electron microscopy of oogenesis and spermatogenesis. Same species as a
- c Inhibition by antibiotics of steroid hormone-induced sex-reversal in tadpoles. *Rana dalmatina* (Anura)
- d Electron microscopy of the relationship between neurosecretion and schizogenesis. *Aeolosoma spec.* (Oligochaeta)
- STANGE, Ms. L.; Dr.rer.nat., Prof. – Arbgr. Pflanzenphysiol., Univ. Kassel, Heinrich-Plett-Str. 40, 35 KASSEL, B.R.D. (Germany)
- STANIER, Ms. M. W.; D.Phil. – A.R.C. Inst. of Anim. Physiol., Brabham, CAMBRIDGE CB2 4AT, England
- a Factors influencing growth in the early postnatal period. *Sus scrofa domesticus* (Artiodactyla)
- STANISSTREET, M.; Ph.D. – Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O.Box 147, LIVERPOOL L69 3BX, England
- a Biochemistry and morphology of abnormal and normal early development (lithium, electrophoresis, cell aggregation, protein synthesis, electron microscopy). *Xenopus laevis* (Anura)
- STARK, E.; Prof. – Pathophysiol. Dept., Inst. of Exp. Med., Hung. Acad. of Sci., Szigony u. 43, BUDAPEST VIII, Hungary
- a Morphological and functional development of endocrine organs, especially hypophysis and steroid-producing glands. *Felis domesticus* (Carnivora), *Homo sapiens* (Primates)
- b Possible influence of the hypothalamus on development of morphophysiology of the hypophysis. Same species as a
- STARRE, H. van der; Drs.biol. – Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands
- a Eye lens induction in vitro studied in chimaeric cultures. *Gallus domesticus*, *Coturnix c. japonica*, *Anas platyrhynchos* (Aves)
- b Histochemistry and immunology of eye lens inductors. *Gallus domesticus* (Aves)
- c Biosynthesis of soluble lens crystallin antigens before and after hatching (isoelectric focusing, autoradiography). Same species as b
- d Synthesis of soluble proteins in the whole embryo and in the cultured eye cup (disc electrophoresis, isoelectric focusing, autoradiography). Same species as b (with P. Th. JANSSEN)
- e Biosynthesis of soluble lens crystallins in early and late development (isoelectric focusing, autoradiography) *Anas platyrhynchos* (Aves) (with S. K. BRAHMA)
- f Isoelectric focusing of some enzymes during lens development. *Gallus domesticus*, *Anas platyrhynchos* (Aves) (with S. K. BRAHMA)
- ŠTASTNÝ, F.; M.D. – Inst. of Physiol., Charles Univ., Albertov 5, 128 00 PRAHA 2, Czechoslovakia
- a Morphological, biochemical, and functional maturation of the embryonic choroid plexus. *Gallus domesticus* (Aves)
- b Studies on neurons and glial cells isolated from the embryonic cerebral hemispheres. Same species as a
- STEBBINGS, H.; Ph.D. – Dept. of Biol. Sci., Univ. of Exeter, EXETER EX4 4QG, England
- a Oogenesis, particularly in telotrophic ovaries. (Insecta)
- STEELE, C. E.; Ph.D. – Dept. of Surg., Addenbrooke's Hosp., CAMBRIDGE, England
- a Factors affecting embryonic development in vitro. *Rattus spec.* (Rodentia)
- b In vitro models of allograft rejection. *Sus scrofa domesticus* (Artiodactyla)
- c Fetal alcohol syndrome (in vitro techniques). Same species as a
- STEENBERGEN, C. L. M.; Dr. – Limnol. Inst., Rijksstraatweg 6, NIEUWERSLUIS, Netherlands
- STEFANELLI, A.; Dr., Prof.ord. – Ist. di Anat. Comp., Univ. di Roma, Via A.Borelli 50, 00161 ROMA, Italy
- a Morphology of new synapses in vitro. *Gallus domesticus* (Aves)
- b Cerebellar and olfactory synaptic systems in vitro. Same species as a
- c Synaptic systems of Mauthner cells in vitro. *Brachydanio rerio* (Teleostei), *Xenopus laevis* (Anura)
- STEGNER, H.-E.; Dr.med., Prof. – Univ.-Frauenklinik, Martinist. 52, 2 HAMBURG 20, B.R.D. (Germany)
- a Ultrastructure of ovarian interstitial cells, fetal ovaries, and oocytes; oocyte culture in vitro. *Cavia porcellus*, *Mus musculus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
- STEINER, E.; Dr.phil. – Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- a Cell lineage in imaginal discs. *Drosophila melanogaster* (Diptera)
- b Transdetermination. *Drosophila spp.* (Diptera)
- STEINERT, Ms. G.; Lic.Chem. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium

- a Egg maturation (electron microscopy, cytochemistry). *Xenopus laevis* (Anura)
 b Presence of lysosomal enzymes in yolk platelets of developing eggs. Same species as a
 STEINMETZ, H. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
 a Regulation of isoenzyme loci and lethal factors. *Drosophila melanogaster* (Diptera)
 STENMAN, S. – Lab. of Exp. Embryol., III.Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3,
 00290 HELSINKI 29, Finland
 a Cell surface antigen localisation in differentiation and malignancy of embryonic fibroblasts.
Gallus domesticus (Aves) (with J. J. WARTIOVAARA and A. VÄHERI)
 STEPANOV, A. S. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW
 117334, U.S.S.R.
 a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with
 T. A. DETTLAFF, E. V. CHULITZKAYA and P. E. FEULGENGAUER)
 STÉPHAN, F.; D.Sc., Prof. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex,
 France
 a Morphogenesis of the embryonic axis. *Gallus gallus* (Aves)
 b Postembryonic development of the integument. *Calliphora* spec. (Diptera)
 c Role of nervous system in pharynx induction. (Turbellaria)
 STÉPHAN (DUBOIS), Ms. F.; D.Sc. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY
 Cedex, France
 a Migration and differentiation of regeneration cells. (Tricladida, Turbellaria; Microdrila,
 Oligochaeta)
 ŠTĚRBA, O. – Dept. of Morphol., Inst. of Vert. Zool., Czech. Acad. of Sci., Květná 8, 60365 BRNO,
 Czechoslovakia
 a Prenatal growth and organogenesis in altricial (nidicolous) and precocial (nidifugous) species.
 (Insectivora; Rodentia; Carnivora; Artiodactyla)
 STEVEN, D. H.; M.A., Vet.M.B. – Anat. School, Sub-Dept. of Vet. Anat., Univ. of Cambridge, Tennis
 Court Rd., CAMBRIDGE CB2 1QS, England
 a Electron microscopy of placenta in relation to physiological exchange; control of parturition and
 maintenance of the fetal environment. *Ovis aries* (Artiodactyla), *Equus caballus* (Perissodactyla)
 b Structure and function of binucleate cells in the placenta. *Ovis aries* (Artiodactyla)
 STOCKER, R. F.; Ph.D. – Zool. Inst., Univ. Basel, Rheinsprung 9, 4051 BASEL, Switzerland
 a Determination of the time at which connections are established between sensory axons from
 antennal disc and brain, especially the question whether axons from homeotic legs in mutant
Antennapedia are guided to normal antennal projection centres by fibers present before the
 transformation of the disc into antennal-leg disc (ultrastructure, reconstructions). *Drosophila*
melanogaster (Diptera)
 b Experiments on the cause of the almost complete absence of muscles in homeotic legs of
Antennapedia. Same species as a
 STOLL, R.; D.Méd., D.Sc., Prof. – Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, 146 rue
 Leo-Saignat, 33076 BORDEAUX Cedex, France
 a Differentiation of the genital tract. *Gallus gallus* (Aves)
 b Physiology of the embryonic thyroid. Same species as a
 STRAATEN, H. W. M. van; Drs. – Vet. Anat. and Embryol. Inst., State Univ. of Utrecht, Bekkerstraat
 141, UTRECHT, Netherlands
 a Testicular development from fetus till sexual maturity (histology, histochemistry): 1. normal
 development; 2. development in cryptorchidism; 3. testicular autotransplantation. *Sus scrofa*
domesticus (Artiodactyla)
 STRAUSS, F.; M.D., Prof. – 33 Eichenrain, 3122 KEHRSATZ, Switzerland
 a Comparative implantation and placentation. (Prototheria; Eutheria, Mammalia)
 b Comparative anatomy of the female reproductive system. Same species as a
 STREET, H. E.; D.Sc., Prof. – Bot. Labs., Univ. of Leicester, Adrian Bldg., LEICESTER LE1 7RH,
 England
 a Embryogenesis and organogenesis in tissue and cell cultures (biochemistry, histochemistry,
 electron microscopy). *Daucus carota* (Umbelliferae), *Atropa belladonna*, *Nicotiana* spp.
 (Solanaceae)
 b Cytodifferentiation and its hormonal control in vitro; induction of synthesis of secondary
 metabolites using mutant cell lines derived from haploid cells. *Nicotiana* spp., *Atropa belladonna*
 (Solanaceae), *Acer pseudoplatanus* (Aceraceae)
 c Chloroplast differentiation and development of autotrophic growth in vitro. *Spinacea oleracea*
 (Chenopodiaceae)
 STROEVA, Ms. O. G.; Dr.biol. – Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of
 the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a Development and teratology of the iris and ciliary body in organ culture. *Rattus norvegicus*
 (Rodentia) (with L. V. AKHABADZE)
 b Dependence of DNA synthesis and cell proliferation in pigment epithelium of the retina upon
 general growth factors of the eye. Same species as a (with I. G. PANOVÁ)
 c Development of regional differences in neural retina and pigment epithelium (synthesis of RNA,
 electron microscopy). *Acipenser stellatus*, *A. güldenstädtii* (Chondrostei) (with V. I. MITASHIÖV
 and E. A. BABURINA)
 STROLENBERG, G. E. C. M. – Dept. of Zool., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
 a Ultrastructure of neurosecretory system during development (Decapoda, Crustacea)
 STRÖM, R.: Fillic. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
 a Larval development. (Bryozoa)
 STRUDEL, G.; D.Sc. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle

- Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Développement et tératologie de la colonne vertébrale. *Gallus gallus* (Aves)
- b Biochimie et ultrastructure du cartilage vertébral. Même espèce comme a
- c Rôle inducteur de la chorde et du tube nerveux; chondrogenèse. Même espèce comme a
- d Composition, origine et fonction du matériel extracellulaire périneurial et périchordial. Même espèce comme a
- e Biochimie, origine et fonction des amines biogènes chordales, régulation neurohumorale chez l'embryon. Même espèce comme a
- STURDEE, A. P.; Ph.D. – Dept. of Biol. Studies, Lanchester Polytechnic, COVENTRY CV1 5FB, England
- a Cell interactions during early embryonic limb development. *Triturus cristatus*, *Ambystoma mexicanum* (Urodea)
- b Isolation and characterisation of chemicals responsible for the inhibition of growth and reproduction of organisms developing at high population densities. *Tilapia mossambica*, *Poecilia reticulata* (Teleostei), *Xenopus laevis* (Anura)
- STURROCK, R. R.; M.B., Ch.B. – Dept. of Anat., Univ. of Dundee, DUNDEE DD1 4HN, Scotland, U.K.
- a Histogenesis of neuroglia. *Mus musculus* (Rodentia)
- b Quantitative studies of effects of minimum deprivation on brain growth. Same species as a
- SUCH (RAZIMBAUD), Ms. J.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Experiments on ommatidium morphogenesis in the embryo *in vivo* and *in vitro*. *Carausius spec.* (Phasmida)
- ŠULCOVÁ, Ms. J.; RNDr. – Res. Inst. of Endocr., Národní 8, 116 94 PRAHA 1, Czechoslovakia
- a Metabolism and binding of steroids, especially androgens, in foetal tissues. *Homo sapiens* (Primates)
- SULSTON, J. E. – Lab. of Molec. Biol., Med. Res. Counc., Hills Rd., CAMBRIDGE CB2 2QH, England
- a Cell lineage, especially of the nervous system. *Caenorhabditis elegans* (Nematoda)
- SUMNER, Ms. B. E. H.; D.Phil. – Dept. of Physiol., Med. Sch., Univ. of Edinburgh, Teviot Place, EDINBURGH EH8 9AG, Scotland, U.K.
- a Changes induced in the hypoglossal nucleus by axotomy and related operations of the hypoglossal nerve (quantitative ultrastructural and cytochemical study of neurone perikarya, dendrites, presynaptic boutons and nearby glia). *Rattus spec.* (Rodentia)
- SURANI, M. A. H.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
- a Molecular changes in cell surface properties from zygote to blastocyst and cellular differentiation during development: functional changes in membranes and transport systems; influence of and responsiveness to environmental conditions; parthenogenetic development; activation process of oocytes; post-implantation development including X-inactivation. *Mus musculus*, *Rattus spec.* (Rodentia)
- b Implantation: role of uterine luminal components; cell surface interactions between blastocyst and uterine epithelium; differentiation of uterine stem cells in response to sex steroids; uterine sensitization for implantation. *Mesocricetus auratus*, *Rattus spec.*, *Mus musculus* (Rodentia)
- SUSO VERGARA, S. – Dept. of Anat., Univ. of Barcelona, C/Casanova 143, BARCELONA 11, Spain
- a Development of skeletal system and integument in the embryo. (Aves)
- ŠVAJGER, A.; M.D., D.Sc., Prof. – Inst. of Histol. and Embryol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
- a Differentiation of isolated germ layers, transplantation, *in vitro* culture. *Rattus norvegicus* (Rodentia) (with B. LEVAK and N. ŠKREB, Inst. of Biol.)
- b Chondrogenesis in the external ear. Same species as a (with Ž. BRADAMANTE and Lj. KOSTOVIĆ)
- c Differentiation of the intercellular matrix during ontogenesis (histology, histochemistry, electron microscopy). Same species as a (with Lj. KOSTOVIĆ and Ž. BRADAMANTE)
- ŠVEJCÁR, J.; Dr.med., C.Sc., Prof. – Inst. für Humangenet. der Univ., Paul-Ehrlich Str. 41, 6 FRANKFURT/Main 70, B.R.D. (Germany)
- a Effect of the teratogen 6-fluoro-deoxyctidine on acid mucopolysaccharide content of fetal stages. *Mus musculus* (Rodentia)
- SVIRIDOV, S. M. – Lab. of Devl. Genet., Inst. of Cytol. and Genet., Pravda St. 9, ap.36, NOVOSIBIRSK 630090, U.S.S.R.
- a Regeneration of the neural retina with special reference to S-100 protein. *Triturus cristatus* (Urodea) (with L. I. KOROCHKIN and V. I. MITASHOV, (Moscow))
- SVYATOGOR, G. P. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.
- a Experimental polyembryony. *Tilapia mossambica* (Teleostei), *Rana temporaria* (Anura), *Gallus gallus*, *Anser anser*, *Meleagris gallopavo*, *Coturnix c. japonica* (Aves)
- SWAAB, D. F.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Interaction with hormones during maturation and adaptation of the nervous system. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- SWAIN, A. H.; B.Sc. – Dept. of Anat., Charing Cross Hosp. Med. Sch., Fulham Palace Rd., LONDON W6 8RF, England
- a Fetal gastric mucosa in organ culture. *Homo sapiens* (Primates)

- SWANSON (EARTLY), Ms. H. H.; Ph.D. — Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
- a Effects of gonadal hormones given shortly before or after birth and of sex hormones implanted in brain of new-born animals on sex-typical morphology, function, and behaviour. *Mesocricetus auratus, Meriones unguiculatus* (Rodentia)
 - b Mechanisms for fertility control (including intra-uterine absorptions) in confined colonies. Same species as a
- SYMONS, D. B. A.; Ph.D. — A.R.C. Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England
- a Ontogeny of foetal lymphoid structure and function. *Sus scrofa, Ovis aries* (Artiodactyla)
- SYTINA, Ms. L. A.; Cand.biol.sci. — A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lening Ave.33, MOSCOW 117071, U.S.S.R.
- SZASZOVSZKY, Ms. E. — Res. Inst. for Pharm. Chem., P.O.Box 82, 1325 BUDAPEST, Hungary
- a Effect of clofibrate and other hypolipidemic agents on fetal development and mortality. *Rattus norvegicus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- SZÉKELY, G.; M.D. — Dept. of Anat., Univ. Med. School, 4012 DEBRECEN, Hungary
- a Development of the spinal motor column in limbless and intact animals. *Xenopus laevis* (Anura)
- SZÖLLOSI, D.; Ph.D., Assoc.Prof. — Lab. de Physiol. Anim., Ctr. Natl. de Rech. Zootechn., I.N.R.A., 78350 JOUY-en-JOSAS, France
- a Egg maturation in vitro, normal and hormone induced; aging of eggs; changes of the zona pellucida and of the micropyle following interaction with the spermatozoon. *Salmo trutta, Esox lucius, Carassius auratus* (Teleostei), *Oryctolagus cuniculus* (Lagomorpha; Rodentia), *Bos taurus, Sus scrofa* (Artiodactyla)
 - b Contribution of the male gamete to the embryo; activation of the male and female genomes (culture in defined media, electron microscopy, autoradiography, histo- and immunochemistry)
- TADDEI, C.; Dr. — Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
- TÄHKÄ, Ms. E. S.; B.Sc. — Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiankatu 7, 00100 HELSINKI 10, Finland
- a Developmental potencies of Hensen's node. *Gallus domesticus, Coturnix coturnix* (Aves)
- TAILLEMITE, J. L.; M.D. — Lab. d'Embryol. et de Cytogénét., Fac. de Méd. Saint-Antoine, 27 rue Chaligny, 75571 PARIS Cedex 12, France
- a Tissue culture of fetal material in connection with the problem of sterility. *Homo sapiens* (Primates)
- TAMARELLE (GARAUDY), Ms. M.; Dr.Univ. — Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
- a Descriptive and experimental embryology (Collembola)
 - b Ultrastructure of germ line cell segregation. Same species as a
 - c Ultrastructural differentiation of the dorsal organ pattern. Same species as a
- TARDENT, P.; Dr.phil., Prof. — Zool.-vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland
- TARIN, D.; M.D. — Dept. of Histopathol., Royal Postgrad. Med. School, Ducane Rd., LONDON W.12, England
- a The mechanism of neural induction, especially the role of ecto- and mesodermal components and the nature of secondary nervous system induced by organiser transplants (histology, histochemistry, electron microscopy, time lapse cinematography). *Xenopus laevis* (Anura)
 - b Interactions between epithelial and connective tissues in tumour development, invasion and metastasis (histology, electron microscopy, transplantation). (Vertebrata)
- TARKOWSKI, A. K.; Ph.D., D.Sc., Prof. — Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przedmieście 26/28, 00-927 WARSZAWA, Poland
- a Preimplantation development in vivo and in vitro. *Mus musculus* (Rodentia)
 - b Chromosomal aberrations in embryogenesis. Same species as a
 - c Nucleo-cytoplasmic interactions during oogenesis and preimplantation development. Same species as a
- TARONE, G.; Ph.D. — Cell and Molec. Biol. Lab., Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeffio 52, 10126 TORINO, Italy
- a Cell membrane differentiation; immunochemistry of surface macromolecules. *Mus musculus* (Rodentia)
 - b Membrane-mediated growth control in BHK cells. *Mesocricetus auratus* (Rodentia)
- TARROUX, P. J. — Lab. de Zool., École Norm. Supérieure, 46 rue d'Ulm, 75230 PARIS Cedex 05, France
- a Ribonucleic acid metabolism in development of wing imaginal discs. *Pieris brassicae* (Lepidoptera)
- TAVERNE, M. A. M. — Inst. of Vet. Obstet., Artif. Insem., and Reprod., State Univ., Yalelaan 7, UTRECHT, Netherlands
- a Cytology and morphology of the placenta, especially changes in the feto-maternal boundary during partus. *Ovis aries, Sus scrofa domesticus* (Artiodactyla)
- TCHERNIAEV, G.; Cand.biol.sci. — A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Anim., Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.
- a Embryology, phylogenesis of development and reproduction. many spp. (Cottidae; Comephoridae; Paracottidae; Cottocomphoridae), *Coregonus* spp., *Thymallus* spp. (Salmonidae, Teleostei)
 - b Viviparity. (Teleostei)
- TEI, Ms. S.; Dr. — Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy
- a Action of magnetic field on regeneration. *Dugesia lugubris* (Turbellaria)

- b Histochemistry and ultrastructure of the cocoon. *Branchiobdella pentodonta* (Oligochaeta)
TEILLET, Ms. M. A. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Migration and differentiation of neural crest cells studied in chimaeras; autonomic nervous system; differentiation of cholinergic and adrenergic neurons. *Gallus gallus*, *Coturnix c. japonica* (Aves)
- TEJEDO MATEU**, A. — Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain
- a Obstruction and recanalization of the embryonic ureter. *Rattus rattus* (Rodentia)
TEMPELAAR, M. J.; Drs. — Vakgroep Genetica, State Univ. of Groningen, Biol. Ctr., Vleugel A, Kerklaan 30, HAREN 8045, Netherlands
- a Abnormal DNA-content in developing and adult stages carrying X-ray-induced chromosome aberrations (cytophotometry). *Tetranychus urticae* (Acari, Arachnida)
- TENCER**, Ms. R., D.Sc. — Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Cell surface during early development. *Xenopus laevis* (Anura), *Pleurodeles waltlii*, *Ambystoma mexicanum* (Urodela)
- TEPLITZ**, Ms. N. A.; Cand.biol.sci. — Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
- a The role of neurotransmitters (acetylcholine, serotonin, catecholamines) in early embryogenesis. *Strongylocentrotus dröbachiensis*, *S. nudus*, *S. intermedius*, *Paracentrotus lividus*, *Arbacia lixula*, *Sphaerechinus granularis* (Echinoidea) (with G. A. BUZNIKOV)
- TERMIER**, M. — Lab. d'Entomol. et d'Ecophysiol. Exp., Univ. Paris XI (Paris-Sud), Bât.446, 91405 ORSAY, France
- TERPIŁOWSKA**, Ms. B.; Ph.D. — Inst. of Zool., Univ. of Wrocław, ul.Sienkiewicza 21, 50-335 WROCŁAW, Poland
- a Early developmental stages. *Acanthocyclops spec.* (Copepoda)
- TESCH**, K. H. — Lehrst. für Exp. Morphol., Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
- a Development of the retina-lamina complex, especially nerve connections (development, regeneration); origin of glial elements (in vitro techniques, electron microscopy). *Ephestia kuhniella* (Lepidoptera)
- b Genealogy of the ommatidium (transplantation, culture in vitro, electron microscopy). Same species as a
- TESTA-BAPPENHEIM**, I.; Dr.med.A.O., Prof. — Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy
- a Experimental embryology. *Triturus alpestris*, *T. taeniatus* (Urodela)
- b Developmental genetics and pathology. *Homo sapiens* (Primates)
- c Teratogenesis and chromosomes. Same species as b
- TEWARI**, Ms. N.; M.Sc. — Inst. d'Histo chim. Méd., Univ. Paris V (René Descartes), 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
- a Fluor in developing teeth. *Rattus spec.* (Rodentia)
- THEILER**, K.; Dr., Prof. — Dept. of Anat., Histol., and Embryol., Univ. of Zürich, Gloriastr. 19, 8006 ZÜRICH, Switzerland
- a Developmental genetics of the vertebral column and of the eye. *Mus musculus* (Rodentia)
- THERWATH**, A.; M.Sc. — Inst. de Rech. en Biol. Mol. du C.N.R.S., Univ. Paris VII, 2 place Jussieu (Tour 43), 75221 PARIS Cedex 05, France
- a Abortive transcription of globin genes in erythroleukaemic cells. *Gallus domesticus* (Aves)
- THESINGH**, Ms. C. W.; M.D. — Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Development and function of ultimobranchial body in organ culture. *Gallus domesticus* (Aves)
- b Hormonal regulation of calcium metabolism and bone formation in embryos. Same species as a
- c Origin and function of cysts in ultimobranchial body and parathyroid in embryo. *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- THESLEFF**, I. — Dept. of Dent. Pathol. and Operat. Dent., Royal Dent. Coll., Vennelyst Bd., 8000 ÅRHUS C, Denmark
- a Electron microscopy of tooth development in vitro. *Mus musculus* (Rodentia) (with O. FEJERSKOV and K. JOSEPHSEN)
- THESLEFF (SAXÉN)**, Ms. I. P. N.; D.D.S. — Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Drug-induced teratogenesis in vitro. *Mus musculus* (Rodentia)
- b Tissue-interactions in tooth development. Same species as a
- THÉVENET**, Ms. A.; Dr.spéc. — Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE Cedex, France
- a Epithelio-mesenchymal interaction and proliferation during cutaneous wound healing in the embryo. *Gallus gallus* (Aves)
- THIERY**, M.; M.D., Ph.D., Prof. — Dept. of Obstet. and Gynecol., Acad. Hosp., Univ. of Gent, DePintelaan 135, 9000 GENT, Belgium
- a Intra-uterine hypoxia (determination of blood lactate/pyruvate balance and acid/base balance). *Homo sapiens* (Primates)
- b Longitudinal study of twins and correlation with genotype as determined by placental membrane morphology, placental zymograms, and extensive bloodtyping. Same species as a
- c Histochemistry of placenta. Same species as a
- THIRIOT-HEBERT**, Ms. M. — Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A,

- 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
 a Surface and vasculature of placenta
THIRIOT-QUIÉVREUX, Ms. C.; D.Sc. – Stat. Zool., Univ. de Paris VI, 06230 VILLEFRANCHE-sur-MER, France
 a Anatomy and histology of planktonic larvae before and after metamorphosis; scanning electron microscopy of their shells. Mesogastropoda, Stenoglossa (Gastropoda)
- THOMAS**, C. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
 a Regulation of ribosomal RNA synthesis in oocytes and eggs. *Xenopus laevis* (Anura)
- THOMAS**, D. B.; Prof. – Dept. of Anat., Univ. of St Andrews, St Salvator Coll., Bute Med. Bldgs., ST ANDREWS KY16 9TS, Fife, Scotland, U.K.
- THOMSON**, I. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
 a Properties of lens mRNAs; regulation of stability. *Gallus domesticus* (Aves) (with R. M. CLAYTON, D. E. S. TRUMAN, J. JACKSON (Edinburgh), and R. WILLIAMSON (London))
- THÖRIG**, G. E. W.; Drs. – Dept. of Popul. and Evol. Biol., Genet. Inst., State Univ., Transitorium III, Paduaalaan 8, UTRECHT, Netherlands
- THOROGOOD**, P.; Ph.D. – Zool. Dept., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
 a Skeletal stem cells and the differentiation of skeletal tissues. *Gallus domesticus* (Aves)
 b Ectopic chondrogenesis and osteogenesis. *Rattus* spp. (Rodentia)
- THORS**, F.; Drs. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grootplein N.21, NIJMEGEN, Netherlands
 a Development of the spinal cord. *Xenopus laevis* (Anura)
- THOUVENY**, Y. R.; Dr., Prof. – Lab. d'Histo. et de Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 route Léon Lachamp, 13288 MARSEILLE Cedex 2, France
 a Biochemistry and cytochemistry of regeneration; molecular mechanisms taking place during dedifferentiation. *Owenia fusiformis* (Polychaeta)
- THYLSTRUP**, A.; Ph.D., Assoc.Prof. – Dept. of Dent. Pathol. and Operat. Dent., Royal Dent. Coll., Vennelyst Bd., 8000 ÅRHUS C, Denmark
 a Development and mineralization of dental enamel from still-born infants (polarizing and light microscopy, microradiography, scanning and transmission E.M.). *Homo sapiens* (Primates)
 b Experimentally disturbed tooth development (polarizing and light microscopy, microradiography, scanning and transmission E.M.). *Rattus* spec. (Rodentia), (Primates)
- TICKLE**, Ms. C. A.: Ph.D. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. School, Cleveland St., LONDON W1P 6DB, England
 a Cellular interactions in limb morphogenesis, particularly the antero-posterior axis. *Gallus domesticus* (Aves)
- TIEDEMANN**, H.; Dr.med., Dr.rer.nat., Prof. – Inst. für Molec. Biol. und Biochem., Fachbereich I (Vorklinik), Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
 a Molecular mechanisms of determination. (Amphibia)
 b Mechanism and organ specificity of transcription and translation (erythroblast, liver). *Gallus gallus* (Aves)
- TIEDEMANN (WAECHTER)**, Ms. H.; Dr.rer.nat. – Inst. für Molec. Biol. und Biochem., Fachber.I (Vorklinik), Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
 a Mechanisms of primary induction. *Triturus* spec., *Ambystoma* spec. (Urodea)
- TIMASHKEVICH**, Ms. T. B.; Cand.med.sc. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
 a Regeneration and cell division in the stomach. *Rattus norvegicus*, *Mus musculus* (Rodentia)
 b Quantitative evaluation of restoration of resected stomach. Same species as a
- TIMMERMANS**, Ms. L. P. M.; Ph.D. – Dept. of Exp. Anim. Morphol. and Cell Biol., Agric. Univ., "Zodiac", Marijkeweg, WAGENINGEN, Netherlands
 a Origin of primordial germ cells ((immuno) histochemistry, autoradiography). *Dentalium vulgare* (Scaphopoda), *Cyprinus carpio* (Teleostei)
- TOGNATO**, G.; Dr. – Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLOGNA, Italy
 a Gonadogenesis and sex differentiation. *Rana latastei*, *R. esculenta* (Anura)
 b Nervous system and neurosecretion in asexual reproduction, sexual differentiation and regeneration. *Dugesia gonocephala*, *Polyclad nigra*, *Dendrocoelum lacteum* (Turbellaria)
- TOIVONEN**, S. I.; Ph.D., M.D., Prof. (Emer.) – Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiankatu 7, 00100 HELSINKI 10, Finland
 a The specific action of heterogeneous inductors. *Triturus* spec. (Urodea)
 b The mechanism of primary induction. Same species as a
 c Cell interaction. Same species as a
- TOKIN**, B. P.; Dr.biol., Prof. – Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.
 a Regeneration, asexual reproduction, and somatic embryogenesis. *Dugesia tigrina* (Turbellaria)
 b Morphogenetic processes in starving animals. Same species as a
- TÖNDURY**, G.; Dr., Prof. – Dept. of Anat., Histol., and Embryol., Univ. of Zürich, Gloriastr. 19, 8006 ZÜRICH, Switzerland
 a Action of different viruses on embryos, pathogenesis, and way of infection. *Homo sapiens* (Primates)
 b Development of the lymphatic system. Same species as a
 c Pre- and postnatal development of thymus and lymphatic organs of the "nude" mutant. *Mus musculus* (Rodentia)

- TONEBY, M. I.; Fil.kand. – Astra Läkemedel AB, 151 85 SÖDERTÄLJE, Sweden
- a Metabolism of tryptophane and 5-hydroxytryptamine (serotonin). *Psammechinus miliaris*, *Strongylocentrotus droebachiensis*, *Paracentrotus lividus* (Echinoidea)
 - b Embryological development of collagen. Same species as a
- TONGE, C. H.; D.D.Sc., Prof. – Dept. of Oral Anat., Dental School, Northumberland Rd., NEWCASTLE upon Tyne NE1 8TA, England
- a Tooth development and eruption.
 - b Effect of severe undernutrition on the development and growth of teeth and jaws (including rehabilitation). *Sus scrofa* (Artiodactyla)
 - c Protein calory deficiency and rehabilitation relative to the development and growth of teeth and jaws. Same species as b
- TONNEYCK (MÜLLER), Ms. I. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Experiments on skull morphogenesis. *Gallus domesticus* (Aves)
- TÖRÖK, L. J.; Ph.D. – Dept. of Biol., Semmelweis Univ. of Med., P.O.B.95, 1450 BUDAPEST, Hungary
- a Nucleo-histone changes during morphogenetic processes of regeneration. *Dugesia lugubris* (Turbellaria)
 - b Morphogenetic inhibition in development, regeneration, and asexual reproduction. *Dugesia lugubris*, *D. tigrina* (Turbellaria)
 - c Effects of hormones and hormone-like substances on metamorphosis. *Rana arvalis* (Anura)
- TORRE, C. – Ist. di Anat. Umana Norm., Univ. di Torino, Corso M.d'Azeglio 52, 10126 TORINO, Italy
- TORRÉS (WINTENBERGER), Ms. S.; D.Sc. – Lab. de Physiol. Anim., Ctr. Natl. de Rech. Zootechn., I.N.R.A., 78350 JOUY-en-JOSAS, France
- a In vitro culture of blastocysts. *Ovis aries*, *Bos taurus* (Artiodactyla)
 - b Embryonic development and interrelations between embryo and corpus luteum. Same species as a
 - c Sexing of blastocysts. *Bos taurus* (Artiodactyla)
 - d Blastocyst implantation. *Oryctolagus cuniculus* (Lagomorpha)
- TOSI, Ms. L.; Dr. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy
- a DNA methylation in embryos. *Sphaerichinus granularis*, *Paracentrotus lividus* (Echinoidea)
- TOSICI, Ms. A.; Biol. – Dept. of Med. Biol., Med. School, P.23 August 1, 1900 TIMIȘOARA, Romania
- a Role of normal and experimentally induced necrosis in teratogenesis. *Gallus domesticus* (Aves)
 - b Cytogenetics. *Homo sapiens* (Primates)
- TOUIR, A. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
- a Control of sexual differentiation (endocrinology and physiology). *Lysmata seticaudata*, *Leander serratus*, *Crangon crangon* (Decapoda, Crustacea)
- TRABUCHET, G.; Dr.3e cycle – Dépt. de Biol. Gén. et Appl., Univ. de Lyon 1, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a Genetic factors in hemoglobin synthesis. *Homo sapiens* (Primates)
- TRAUT, W.; Dr., Prof. – Abt. Biol., Arb.gr. Entw.physiol. der Tiere, Ruhr-Univ., 4630 BOCHUM, B.R.D. (Germany)
- a Role and phases of activity of the W-chromosome in development. *Ephestia kuehniella* (Lepidoptera)
 - b Transcription of the chromosomes in oocytes. Same species as a
 - c Heterochromatinization of chromosomes in development. Various spp. (Insecta)
- TREVISONI, P.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
- a Experiments on differentiation of dorsal neurons of the spinal cord. *Bufo bufo* (Anura), *Salamandra salamandra* (Urodela)
- TRNKOVÁ-ŠVECOVÁ, Ms. E.; RNDr. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia
- a Development of the flexor muscles in the hand. (Mammalia)
- TRUCKENBRODT, W.; Dr. – Fachber.5 Biol., Univ., Postfach 4469, 4500 OSNABRÜCK, B.R.D. (Germany)
- a Effect of actinomycin D, cordycepin and other inhibitors of development on eggs. *Odontotermes badius* (Isoptera)
 - b Developmental stages of the different castes. *Odontotermes stercorivorus* (Isoptera)
- TRUMAN, D. E. S.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, U.K.
- a Properties of lens mRNAs; regulation of stability. *Gallus domesticus* (Aves) (with R. M. CLAYTON, I. THOMSON and J. F. JACKSON (Edinburgh), and R. WILLIAMSON (London))
 - b Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia) (with R. M. CLAYTON, J. C. CAMPBELL, D. J. PRITCHARD (Edinburgh), and D. S. McDEVITT (Philadelphia))
- TRUSLOVE, Ms. G. M.; Ph.D. – Dept. of Human Genet. and Biometry, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
- a Developmental genetics of ocular and auditory disorders in mutants. *Mus musculus* (Rodentia)
- TSCHADAJA, E. A. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.

- a Anencéphalie. *Homo sapiens* (Primates)
- b Tératogénèse par sulfamides hypoglycémiants, antimétabolites. *Rattus spec.* (Rodentia) (avec L. MERCIER)
- c Influence des hormones sur le développement foetal. Même espèce comme b
- d Influence des alcaloïdes du Rauwolfia, de la réserpine et de la déserpidine sur le développement. Même espèce comme b (avec L. MERCIER)
- e Influence des neuroleptiques sur la fertilité et le développement foetal. *Rattus spec.*, *Mus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- f Diabète expérimental et grossesse. (Mammalia)
- g Influence des antimitotiques, des anticonvulsants et de la prostaglandine F_{2α} sur la gestation. Même espèce comme e (avec L. MERCIER)

TUDDENHAM, E. G. D.; M.B., B.S., M.R.C.P. — Dept. of Haematol., Welsh Natl. Sch. of Med., Heath Park, CARDIFF, Wales, U.K.

TUDOSE, Ms. O.; Dr.med. — Dept. of Med. Biol., Med. School, P-ja 23 August 1, 1900 TIMIȘOARA, Romania

- a Vascular development in the embryonic central nervous system. *Gallus domesticus* (Aves)
- b Somatic chromosomal constitution of subjects with genetic defects. *Homo sapiens* (Primates)
- c Genetic, developmental and hormonal aspects of gonadal dysgenesis and sex inversion. Same species as b

TUFT, P. H.; Ph.D. — Dept. of Zool., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JT, Scotland, U.K.

TUMANISHVILI, G. D.; Dr., Prof. — Dept. of Developm. Biol., Inst. of Exp. Morphol., Acad. of Sci. of the Georgian SSR, Digomi, 380059 TBILISI, U.S.S.R.

- a Role of chemical intercellular interactions in regulation of the rate of cell multiplication and intracellular synthesis studied in cell cultures and in vivo. *Gallus domesticus* (Aves), *Rattus norvegicus*, *Mus musculus* (Rodentia)
- b Participation of intracellular substances in gastrulation. *Misgurnus fossilis* (Teleostei)
- c Participation of nuclear and cytoplasmic substances in control of state of DNA in chromatin. *Gallus domesticus* (Aves), *Rattus norvegicus* (Rodentia)

TURAŁA-SZYBOWSKA, K.; Dr. — Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka St. 52, 31-044 KRAKÓW, Poland

- a Embryology of a seed sterile population. *Ranunculus penicillatus* (Ranunculaceae)
- b Endopolyploidy in the antipodal. *Ranunculus penicillatus*, *R. peltatus* (Ranunculaceae)

TURCHINI, J. P.; D.Méd., D.Sc., Prof. — Lab. d'Histol.-Embryol.-Cytogénét., Fac. de Méd., B.P.38, 63001 CLERMONT-FERRAND Cedex, France

- a Neonatal liver. *Mus musculus* (Rodentia)

TURNER, D. C.; Ph.D. — Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland

- a In vitro myogenesis. *Gallus domesticus* (Aves), *Rattus spec.* (Rodentia)
- b Control of cell proliferation. *Gallus domesticus* (Aves)

TURNER, S. C.; Ph.D. — Dept. of Biol. Sci., Portsmouth Polytechnik, Park Rd., PORTSMOUTH PO1 2DY, England

- a Growth, differentiation and degeneration of larval tissue during metamorphosis. *Xenopus laevis* (Anura) (with H. FOX, London)

TVOROGOVA, Ms. A. G. — Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, U.S.S.R.

TYSZKIĘWCZ, Mrs. K.; D.Sc. — Zool. Dept., Jagellonian Univ., ul.Krupnicza 50, KRAKÓW 2, Poland

- a Embryogenesis of nervous system. *Tetrapontophora bielanensis* (Collembola)

UBBELS, Ms. G. A.; Ph.D. — Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaan 8, 3584 CT UTRECHT, Netherlands

- a Cytochemistry and electron microscopy of the origin of dorso-ventral polarity of the egg: 1. cytoplasm and pigment movements during grey crescent formation (with K. HARA and K. RZEHAK (Kraków)); 2. factors involved in cytoplasmic segregation; 3. possible role of neurotransmitters. *Xenopus laevis*, *Discoglossus pictus* (Anura)
- b Establishment of bilateral symmetry in the uncleaved egg studied by transplantation of cytoplasm. Same species as a (with P. D. NIEUWKOOPI)

ULLMANN, Ms. S. L.; Ph.D. — Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.

- a Polyovular follicles. *Mus musculus* (Rodentia)

b Oogenesis. *Isoodon macrourus* (Peramelidae), *Trichosurus vulpecula* (Phalangeridae), *Sarcophilus harriusi* (Dasyuridae, Marsupialia)

URBANI, E.; Prof. — Ist. di Istol. ed Embriol., Univ. di Roma, Città Universitaria, 00185 ROMA, Italy

URSPRUNG, H.; Ph.D., Prof. — Swiss Fed. Inst. of Technol., 8092 ZÜRICH, Switzerland
no embryological work in progress

UYLINGS, H. B. M.; Dr. — Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands

- a Adaptability of the nervous system of adult organisms, compared with normal development. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)

VACEK, Z.; MUDr., D.Sc., Prof. — Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia

- a Electron microscopy and histochemistry of the placenta (comparative studies on the sub-microscopic structure, enzyme histochemistry and transport mechanism). *Homo sapiens*

- (Primates), (Rodentia; Carnivora; Insectivora; Chiroptera)
- b Role of primitive streak and tail region in early differentiation of the body (submicroscopic and cytochemical studies in normal and experimental conditions). *Rana esculenta* (Anura), *Gallus domesticus* (Aves), *Rattus* spec. (Rodentia)
- VAGNETTI, Ms. D.; Dr. – Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy
- a Ultrastructure of the cocoon. *Dugesia lugubris* (Turbellaria)
- b Action of antiandrogens on the ultrastructure of male genital organs. *Cavia porcellus* (Rodentia)
- VAHERI, A. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Cell surface antigen localization in differentiation and malignancy of embryonic fibroblasts. *Gallus domesticus* (Aves) (with J. J. WARTIOVAARA and S. STENMAN)
- VAHS, W.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
- a Phase specific gene activities in the eye-cup-lens-system of the developing embryo, as revealed by quantitative cytochemical DNA determinations. *Salmo irideus* (Teleostei), *Triturus vulgaris* (Urodele)
- b Ultrastructure of embryonic cells undergoing induction and differentiation. *Triturus vulgaris* (Urodele)
- c Amitosis in liver and other organs (polyploidization in embryos and larvae). (Amniota)
- d Polyploidization and cell cycle. (Ciliata)
- VAKAET, L. C. A.; M.D., Prof. – Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
- a Early development (scanning and transmission electron microscopy). *Gallus domesticus*, *Coturnix c. japonica* (Aves)
- b In vitro culture of blastoderms, normal and after experimental interventions; histochemistry: enzymes and mucopolysaccharides. Same species as a
- VAKHRUSHEVA, Ms. M. P.; Dr. – Inst. of Med. Genet., Kashirskoye Chaussee 6a, MOSCOW 115478, U.S.S.R.
- a Genetic regulation of development of brain, eye, and limbs. *Mus musculus* (Rodentia)
- VALKEMA-PORRENGA, Ms. F. C.; Drs. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Development of bone and onset of mineralization in radii of 14-day embryos (electron microscopy). *Mus musculus* (Rodentia)
- VAN GANSEN, Ms. P.; Prof. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
- a Previtellogenic and vitellogenic oocytes.
- b Nucleolar protein synthesis (high resolution autoradiography). *Xenopus laevis* (Anura)
- c Ageing in primary culture of embryonic fibroblasts: ultrastructure, collagen synthesis, replication and transcription (transmission and scanning electron microscopy, autoradiography, thymidine and uridine incorporation, actinomycin fixation). *Mus musculus* (Rodentia)
- VANNEREAU, Ms. A. – Lab. de Biol. Cell., Fac. de Pharm., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France
- a Gametogenesis, embryogenesis, formation of haustorium (ultrastructure). Plant, ginaceae
- VANNINI, E.; Dr., Prof. – Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLOGNA, Italy
- a Experimental analysis of the development of the gonad and Bidder's organ. *Bufo* spec. (Anura)
- b Inhibition by antibiotics of testosterone-induced sex-reversal in tadpoles. *Rana dalmatina* (Anura)
- c General study of the problem of the "sex gradient" in various hermaphroditic animals. (Hydroidea; Tricladida, Turbellaria; Serpulidae, Polychaeta)
- d Nervous system and neurosecretion in asexual reproduction, sexual differentiation and regeneration. *Hydra* spec., *Chlorohydra viridissima* (Hydroidea), *Dugesia* spec., *Polyclenis nigra*, *Dendrocoelum lacteum* (Turbellaria)
- VAN PRAET, M. – Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France
- a Experimental morphogenesis and regeneration. *Actinia equina* (Actinozoa)
- VAN ROELEN, C. – Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
- a Histochemistry and biochemistry of the carbohydrate-containing extracellular matrix of the blastoderm. (Aves)
- b Concanavalin A-receptors during early development (histochemistry). (Aves)
- VAN TOLEDO, B. – Dépt. d'Embryol. et Tératol. Exp., Inst. de Biol. Anim., Fac. des Sci., Univ. de Fribourg, 1700 FРИBOURG, Switzerland
- a Teratogenic action of fluoride. *Gallus gallus* (Aves)
- VARGA, A.; Dr., Ir. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
- VASSALL ADAMS, P. R.; B.Sc. – Dept. of Anat., Charing Cross Hosp. Med. Sch., Fulham Palace Rd., LONDON W6 8RF, England
- a Development of the conducting system in the heart. (Aves)
- VASSE, J. – Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
- a Hemopoiesis in the embryo. *Emys orbicularis* (Chelonia)
- b Limb bud differentiation. (Chelonia)
- VASSETZKY, S. G.; Cand.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.

- a Meiosis and duration of meiotic phases. *Mactra* spec., *Anodonta* spec., *Unio* spec. (Lamelli-branchia)
- b History of meiosis research. (Animalia)
VEDDER, F. D.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KOLN 41, B.R.D. (Germany)
- a Protein metabolism during limb regeneration. *Triturus vulgaris*, *T. alpestris* (Urodela)
VEGT, G. B.; Drs. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Cultivation of embryonic intestinal tissue. *Rattus* spec. (Rodentia)
VEINI (HARITOS), Ms. M.; M.Sc. – Zool. Lab., Univ. of Athens, Panepistimiopolis (Kouponia), ATHENS (621), Greece
- VELA FERNÁNDEZ, J. A. – Dept. de Genét., Univ. de Barcelona, Av.José Antonio 585, BARCELONA-7, Spain
- a Shell-gland induction (actinomycin-D treatment; electrofocussing of total protein). *Phrysa acuta*, *Lymnaea auricularia* (Gastropoda)
- b Chorion-free embryo culture. Same species as a
VELTMAN, W. A. M.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
- a Adaptability of the nervous system of adult organisms, compared with normal development. *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- VERBICKY, M. Sh.; Cand.med.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- VERDIER, G. P. J.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
- a mRNA metabolism during development of chloroplast induced by illumination. *Euglena gracilis* (Euglenophyceae)
- VERDONK, N. H.; Ph.D., Prof. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands
- a Determination of bilateral symmetry in the head region. *Lymnaea stagnalis* (Gastropoda)
- b Germinal localization in eggs. Various spp. (Mollusca)
- c Cellular interactions in early development. Various spp. (Mollusca)
- VERHOFSTAD, A. A. J.; Med.drs. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grootplein N. 21, NIJMEGEN, Netherlands
- a Differentiation of epinephrine- and nor-epinephrine-containing cells in the adrenal medulla (histochemistry). *Mus rattus* (Rodentia)
- VERNA, J. M.; M.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE Cedex, France
- a Morphological and experimental study of dermal mesenchyme innervation in the embryo from 5 days of incubation. *Gallus gallus* (Aves)
- b Long-term culture in vitro of associations of embryonic skin and spinal ganglia. *Gallus gallus*, *Anas platyrhynchos* (Aves)
- VETTERLEIN, Ms. M.; M.B. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, A-1090 WIEN, Austria
- a Enzyme induction in embryonic and adult liver cells in vitro by steroid hormones. *Rattus norvegicus* (Rodentia)
- VIELL, B.; Dr.rer.nat. – Inst. für Entw.physiol., Univ. zu Köln, Gyrhofstr. 17, 5 KOLN 41, B.R.D. (Germany)
- a Biochemical aspects of differentiation in the wing. *Riella helicophylla* (Hepaticae)
- b Protein and amino acid metabolism during the first stages of regeneration. Same species as a
VIJVERBERG, A. J.; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Proliferation (mitoses) and DNA synthesis in imaginal discs (autoradiography). *Calliphora erythrocephala* (Diptera)
- b Influence of ecdysterone and juvenile hormone on morphogenesis of imaginal discs. Same species as a
- VILANOVA TRIAS, J. – Dept. of Anat., Univ. of Barcelona, C./Casanova 143, BARCELONA 11, Spain
- a Biochemical changes in cerebrospinal fluid during embryonic development. *Gallus domesticus* (Aves)
- b Effect of androgens and antiandrogens on sexual differentiation. *Rattus* spec. (Rodentia)
- c Secretion of antimüllerian factor in developing gonad (organ culture). Same species as b
VILJANTO, J.; M.D. – Dept. of Forensic Med., Univ. of Turku, Kiinamyllynkatu 10, 20520 TURKU 52, Finland
also: Dept. of Pediat., Div. of Surg., Centr. Hosp., Kiinamyllynkatu 4-8, 20520 TURKU 52, Finland
- a Biological sequences in regeneration of subcutaneous connective tissue, using "Cellstic" method: cells in the exudate are harvested in cellulose sponge, inserted in silastic tubing (histology, histochemistry, biochemistry, immunofluorescence). *Homo sapiens* (Primates)
- VILLA, Ms. L.; Dr.Sci. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
- a Ultrastructure of spermatogenesis, spermatozoa, and fertilization. *Phallusia* spec., *Molgula impura*, *Ciona intestinalis* (Asciidae)
- VINCE, Ms. M. A.; B.A. – Psychol. Lab., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EB, England
- a Responsiveness in the embryo. (Aves)
- b Responsiveness in the foetus. *Cavia porcellus* (Rodentia)

- VIRTANEN, I. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Freeze-etching electron microscopy of ribosome-membrane association in liver cells. *Rattus spec.* (Rodentia) (with J. J. WARTIOVAARA)
 - b Differentiation of liver parenchyme cells in tissue culture. Same species as a
- VITTORELLI, Ms. M. L.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
- a DNA synthesis in dissociated embryonic cells. *Paracentrotus lividus* (Echinoidea)
 - b Isolation of blastula cell membranes and detection of enzymatic activities. Same species as a
 - c Detection of cyclic AMP in embryos and in dissociated embryonic cells. Same species as a
- VIZA, D.; M.D. – Lab. d'Immunobiol., Pathol. Gén. et Expér., Fac. de Méd. Pitie-Salpêtrière, 105 Bd. de l'Hôpital, 75634 PARIS Cedex 13, France
- VOGEL, O.; Dr.rer.nat. – Biol. Inst. I. (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG, B.R.D. (Germany)
- a Classical and biochemical aspects of pattern formation. *Drosophila spec.* (Diptera), *Euscelis plebejus* (Homoptera)
- VOLLMAR, H.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
- a Embryonic determination. *Acheta domesticus* (Orthoptera)
 - b Morphogenetic movements during early embryogenesis. Same species as a, and *Aeschna cyanea* (Odonata), *Leptinotarsa decemlineata* (Coleoptera), *Rivulus milesi* (Teleostei)
- VOLLRATH, L.; Dr.med., o.Prof. – Anat. Inst. der Univ., Saarstr. 19-21, 6500 MAINZ, B.R.D. (Germany)
- VOSSEN, J. G. H. M.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
- a Induction of puffing by injection of mitochondrial extracts into salivary gland cells. *Drosophila hydei* (Diptera)
- VREEZEN, Ms. W. J.; Drs. – Genet. Lab., State Univ., Kaiserstr. 63, LEIDEN, Netherlands
- a Selection on asymmetrical wing development. *Drosophila melanogaster* (Diptera)
- VRIES, O. M. H. de; Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands
- a Genome activity during development. *Schizophyllum commune* (Basidiomycetes, Fungi)
- VYAZOV, O. E.; Dr.med., Prof. – Lab. of Embryol., Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
- WABIK-ŚLIZ, Ms. B.; M.Sc. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., Krupnicza 50, 30-060 KRAKÓW, Poland
- a Ultrastructure of sperm and eggs from inbred and crossbred animals. *Mus musculus* (Rodentia)
- WADA, S.; Dr.rer.nat. – Zool. Inst., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF 1, B.R.D. (Germany)
- a Morphogenesis of the compound eyes. (Arthropoda)
- WAGNER, E.; Dr.rer.nat. – Biol. Inst. II der Univ., Lehrst. für Bot., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)
- a Interaction of phytochrome and endogenous rhythms in photoperiodic control of growth and development. *Chenopodium rubrum* (Chenopodiaceae)
- WAKELEY (DENT), Ms. J.; Ph.D. – Anat. Dept., Univ. of Leicester, Med. Sci. Bldg., University Rd., LEICESTER LE1 7RH, England
- a Normal development and congenital defects in the lens. *Gallus domesticus* (Aves)
 - b Cell shape and movements in the embryo. Same species as a
- WAKITA, M.; Dr.med. – Inst. für Anat.I, Ruhr-Univ., Geb.MA 5/162, Universitätsstr. 150, Postfach 102148, 4630 BOCHUM 1, B.R.D. (Germany)
- a Cell differentiation of ameloblasts. (Teleostei), *Mus musculus* (Rodentia)
 - b Phylogenetic development of tooth enamel. (Vertebrata)
 - c Relations between replacement pattern in very early stages of tooth development and distribution of neural crest cells that initiate the teeth. (Amphibia)
- WAL, U. P. v.d.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, Utrecht, Netherlands
- a Electron microscopy of chemical transformation of yolk into membrane elements in degenerating yolk granules. *Lymnaea stagnalis* (Gastropoda)
 - b Electron microscopy of the synthesis of new cytoplasmic membrane elements during early cleavage. Same species as a
 - c Electron microscopy of segregated cytoplasmic elements. Same species as a
 - d Electron microscopy of cell contacts during cleavage. Same species as a
- WALKER, D. G.; Ph.D., D.Sc., Prof. – Dept. of Biochem., Univ. of Birmingham, P.O.Box 363, BIRMINGHAM B15 2TT, England
- a Enzyme development and metabolic regulation in fetus and neonate. *Rattus spec.* (Rodentia)
- WALL, R.; B.Sc. – Dept. of Zool., Univ. of Liverpool, P.O.Box 147, LIVERPOOL L69 3BX, England
- a Biochemistry of normal and abnormal early development (lithium, RNA synthesis, polysomes, induction). *Xenopus laevis* (Anura)
- WALLACE, H.; Ph.D. – Dept. of Genet., Univ. of Birmingham, Edgbaston, P.O.Box 363, BIRMINGHAM B15 2TT, England
- a Limb regeneration. *Ambystoma spec.* (Urodela)
 - b Sex determination. *Pleurodeles waltl* (Urodela)
- WARTENBERG, H.; Dr.med., Prof. – Anat. Inst., Abt. für Exper. Biol., Univ. Bonn, Nussallee 10, 53 BONN, B.R.D. (Germany)
- a Light and electron microscopy of male and female germ cells during pre- and postnatal develop-

- ment. *Acomys cahirinus* dimidiatus, *Mesocricetus auratus* (Rodentia), *Homo sapiens* (Primates)
- WARTIOVAARA, J. J.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
- a Mechanism of kidney tubulogenesis. *Mus musculus* (Rodentia) (with L. O. SAXÉN, E. LEHTONEN, S. NORDLING, P. EKBLOM and J. SALONEN)
 - b Freeze-etching electron microscopy of ribosome-membrane association in liver cells. *Rattus spec.* (Rodentia) (with I. VIRTANEN)
 - c Cell surface antigen localization in differentiation and malignancy of embryonic fibroblasts. *Gallus domesticus* (Aves) (with A. VAHERI and S. STENMAN)
- WATSON, A.; B.Sc. – Dept. of Genet., Univ. of Birmingham, Edgbaston, P.O.Box 363, BIRMINGHAM B15 2TT, England
- a Developmental genetics of a mutant affecting limb growth and morphogenesis. *Ambystoma mexicanum* (Urodela)
 - b Limb regeneration. Same species as a
- WATTS, G. T.; Ch.M. – Dept. of Surg., Queen Elizabeth Hosp., Edgbaston, BIRMINGHAM 15, England
- WEAKLEY (SHAW), Ms. B.; Ph.D. – Dept. of Anat., Med. Sci. Inst., Univ. of Dundee, Hawkhill, DUNDEE DD1 4HN, Scotland, U.K.
- a Cytochemistry and ultrastructure of developing germ cells. *Mesocricetus auratus* (Rodentia)
 - b Effects of different preparative procedures on ultrastructure of differentiating ovarian tissue. Same species as a
- WEBB, F. T. G.; D.Phil. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
- a Control of growth and differentiation of the early embryo in vitro and in vivo. *Mus musculus*, *Rattus spec.* (Rodentia)
 - b Control of egg implantation. Same species as a
 - c Control of formation, growth and differentiation of follicles in the ovary. Same species as a, and *Homo sapiens* (Primates)
- WEBER, R.; Ph.D., Prof. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahinstr. 8, 3012 BERN, Switzerland
- a Albumen synthesis during metamorphosis. *Xenopus laevis* (Anura) (with I. ABRAHAM)
 - b Hemoglobin transition in relation to metamorphosis. Same species as a
 - c Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Same species as a (with G. U. RYFFEL)
- WEGENER, G.; Dr.rer.nat. – Inst. für Zool., Univ., Saarstr. 21, 6500 MAINZ, B.R.D. (Germany)
- WEGMANN, R.; Dr.Méd., D.Sc., Prof. – Inst. d'Histochem. Méd., Univ. Paris V (René Descartes), 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
also: Dépt. d'Histoenzymol., Fac. Française de Méd. et Pharm., B.P.5076, BEIRUT, Lebanon
- a Enzymology and metabolic pathways of morphogenesis. (Mammalia)
 - b Development of the ovary. (Mammalia)
- WEGNEZ, M.; D.Sc. – Centre de Génét. Moléc. du CNRS, 91190 GIF-sur-YVETTE, France
- a Mécanismes biochimiques de l'œogénèse. *Xenopus laevis* (Anura)
- WEIDELI, H. J.; Dipl.Phil.II – Abt. Zellbiol., Biozentrum der Univ., Klingenbergrstr. 70, 4056 BASEL, Switzerland
- a Differentiation and determination; factors involved in embryonic development; mRNA synthesis in early stages. *Drosophila melanogaster* (Diptera)
- WEISS, R. A.; B.Sc. – Imp. Canc. Res. Fund Labs., Lincoln's Inn Fields, LONDON WC2A 3PX, England
- WELLENIEK, S. J.; Dr., Ir., Prof. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O.Box 30, WAGENINGEN, Netherlands
- a Effects of flower inducing factors (long day, vernalization, very high temperature, gibberellic acid) on the blocking in vegetative plants of different genotypes. *Silene armeria* (Caryophyllaceae)
- WELLMANN, E.; Dr.rer.nat. – Biol. Inst. II der Univ., Lehrst. für Bot., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)
- a Light mediated differentiation in tissue cultures. (Umbelliferae)
- WELSUM, R. A. van; M.D. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
- a Cytochemistry of developing neurons. *Gallus domesticus* (Aves)
- WENDER, M. B.; M.D., Prof. – Inst. of Neurol. and Sensory Organs, Med. Acad., 49 Przybyszewskiego St., 60-335 POZNAŃ, Poland
- a The chemical composition and enzyme activity of developing nervous tissue with special reference to the period of myelination. Laboratory animals, *Homo sapiens* (Mammalia)
 - b The influence of ionizing radiation on the developing nervous system. *Oryctolagus cuniculus* (Lagomorpha)
 - c Histoenzymatic architectonics of the developing nervous system. *Rattus norvegicus* (Rodentia)
- WENIGER, J.-P.; Dr. – Lab. de Zool. et d'Embryol. Exp., Univ. Louis Pasteur, 12 rue de l'Université, 67000 STRASBOURG, France
- a Chemical nature of the testicular hormone of the embryo: probably a protein. *Gallus domesticus* (Aves)
 - b The role of the hypophysis in hormonal activity of embryonic gonads. *Gallus domesticus*, *Anas platyrhynchos* (Aves), *Mus musculus*, *Rattus spec.* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- WENSING, C. J. G.; D.V.M., Ph.D. – Vet. Anat. and Embryol. Inst., State Univ. of Utrecht, Bekkerstr. 141, UTRECHT, Netherlands

- a Mechanism of testicular descent (histology, biochemistry, tissue culture). (Mammalia)
 b Development of heart anomalies, especially hypoplasia of right and left heart. (Mammalia)
 WENT, D. F.; Dr.sc.nat. – Dept. of Zool., Swiss Fed. Inst. of Technol., Universitätstr. 2, 8006
 ZÜRICH, Switzerland
- a Physiology of paedogenetic reproduction; sex determination; in vitro culture of ovaries; time-lapse cinematography. *Heteropeza pygmaea* (Diptera)
 b Morphogenesis and regulation in the meroistic ovary: establishment of egg architecture and its relation to embryonic development (autoradiography, electron microscopy, culture in vitro, time-lapse cinematography). Same species as a
- WESSELS, J. G. H.; Dr., Prof. – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands
- a Biochemistry and ultrastructure of sexual morphogenesis, especially in relation to enzyme regulation. *Schizophyllum commune* (Basidiomycetes, Fungi)
 b Biochemistry and ultrastructure of hyphae, synthesis and degradation of wall constituents. Same species as a
- WESTIN, Ms. M.: Ph.D. – Dept. of Immunol., Wenner-Gren Inst. for Exp. Biol., Fack, 104 05
 STOCKHOLM 50, Sweden
- a Immunological study of individual embryonic proteins, their gene dependence, function, localization, and appearance in different developmental stages. *Paracentrotus lividus* (Echinoidea)
- WEYCHERT, K.; Mgr.biol. – Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87-100
 TORUŃ, Poland
- a Regeneration of appendages in normal and experimentally changed conditions. *Tegenaria atrica* (Araneae, Arachnida)
- WEYGOLDT, P.; Dr., Prof. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D.
 (Germany)
 no work on developmental biology in progress
- WHITE, Ms. J.; M.A. – Dept. of Developm. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN
 AB9 1AS, Scotland, U.K.
- WHITEAR, Ms. M.; Ph.D., D.Sc. – Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E
 6BT, England
- a Morphological and experimental study on origin and development of Merkel cells and chemosensory cells in larval epidermis. Many spp. (Anura & Urodela) (with H. FOX)
- WHITTINGHAM, D. G.; Ph.D. – MRC Mammal. Devl. Unit, Univ. Coll. London, Wolfson House, 4
 Stephenson Way, LONDON NW1 2HE, England
- a Factors involved in oocyte activation, e.g. role of Ca-ions; changes in electrical properties of the vitelline membrane; developmental potential of activated oocytes. *Mus musculus* (Rodentia)
- b Effect of long-term storage at low temperatures and of background radiation on survival of preimplantation embryos; feasibility of storing unique mutant stocks at -196°C. *Mus musculus*, *Mesocricetus auratus*, *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- WIDE, Ms. M.; Fil.mag. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
- a Disturbances of blastocyst implantation by lead chloride in vivo and in vitro. *Mus musculus* (Rodentia)
- WIGGLESWORTH, Sir V. B.; Dr., Prof. (Emer.) – Dept. of Zool., Univ. of Cambridge, Downing St.,
 CAMBRIDGE CB2 3EJ, England
 no embryological work in progress
- WIJK, R. van; Dr. – Dept. of Molec. Cell Biol., State Univ. of Utrecht, Padualaan 8, UTRECHT,
 Netherlands
- a Factors affecting growth rate and length of cell cycle phases of normal hepatocytes and cultured hepatoma cells; role of cyclic nucleotides, enzymes and hormones (time lapse microcinematography, DNA photometry, autoradiography). *Rattus* spec. (Rodentia)
- b Control of tyrosine aminotransferase synthesis in relation to differentiation of hepatocytes. Same species as a
- WILCOX, M.; Ph.D. – Lab. of Molec. Biol., Med. Res. Council, Hills Rd., CAMBRIDGE CB2 2QH,
 England
- a Imaginal disc development, especially formation of compartments and their maintenance during regeneration. *Drosophila melanogaster* (Diptera)
- b Mechanisms underlying heterocyst spacing. *Anabaena* spec. (Cyanophyceae)
- WILD, A. E.; Ph.D. – Dept. of Biol., Univ. of Southampton, SOUTHAMPTON SO9 5NH, England
- a Protein transmission across foetal membranes. *Oryctolagus cuniculus* (Lagomorpha)
- WILDE, A. G. de; M.D., Ph.D., Prof. – Dept. of Anat. and Embryol., State Univ. of Groningen,
 Oostsingel 69, GRONINGEN, Netherlands
- a Development of computer programs for the reconstruction, by incremental plotter, of embryonic organ structure.
- b Morphogenesis of the palatal and nose regions, studied by means of reconstructions. *Mus musculus*, *Rattus norvegicus* (Rodentia), *Homo sapiens* (Primates)
- WILLEMSE, M. Th. M.; Ph.D., Prof. – Dept. of Bot., Agric. Univ., Arboretumlaan 4, WAGENINGEN,
 Netherlands
- a Ultrastructural, histochemical, and comparative study of micro- and macrogametogenesis and fertilization. *Vaucheria geminata* (Xanthophyceae), *Equisetum variegatum* (Equisetophyta), *Thuja occidentalis* (Cupressaceae), *Pinus sylvestris* (Pinaceae)
- b Ultrastructural and experimental study of the division and formation of mitochondria in the central and egg cell of the archegonium. *Pinus sylvestris* (Pinaceae)
- WILLETTS, A.; Ph.D. – Dept. of Biol. Sci., Univ. of Exeter, Perry Rd., EXETER EX4 4QG, England
- a Biochemical and cytological changes associated with the transition yeast-mycelial form, especially

- molecular control mechanisms involved. *Aureobasidium pullulans* (Fungi)
WILLIAMSON, D. I.; Ph.D., D.Sc. – Dept. of Marine Biol., Univ. of Liverpool, PORT ERIN, Isle of Man, U.K.
 a Laboratory rearing of larval stages: moulting, feeding, number of stages. *Palinurus elephas*, *Nephrops norvegicus* (Decapoda, Crustacea)
 b Hatching rhythms. (Decapoda, Crustacea)
WILLIAMSON, R. – LONDON, England (further address unknown)
 a Properties of lens mRNAs; regulation of stability. *Gallus domesticus* (Aves) (with R. M. CLAYTON, D. E. S. TRUMAN, J. F. JACKSON and I. THOMSON, Edinburgh)
WILSON, I. B.; Ph.D. – Dept. of Zool., Univ. Coll. of North Wales, BANGOR, Caerns., Wales, U.K.
 a Establishment of implantation and early pregnancy. *Mus musculus* (Rodentia)
 b Experimental developmental morphology. Same species as a
 c Morphology and endocrinology of viviparity. *Chalcides ocellatus*, *C. sepoides* (Lacertilia)
WINKLER, I.; Dipl.Biol. – Inst. für Pflanzenkrankh. und Pflanzenschutz, Techn. Univ., Herrenhäuser Str. 2, 3 HANNOVER-Herrenhausen, B.R.D. (Germany)
 a Biochemistry of caste determination and oviposition. *Formica polyctena*, *F. rufei* (Hymenoptera)
WINTER, G. – I. Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)
 a Comparative embryology. *Pycnogonum* spec., *Ammothea* spec., *Phoxichilium* spec., *Callipallene* spec. (Pantopoda)
WISE (WYLES), Ms. C.; Ph.D. – Zool. Dept., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland
 a Development of retinal photoreceptors: 1. under different light conditions; 2. ultrastructure. *Poecilia reticulata* (Teleostei)
WISHART, G. J.; Ph.D. – Biochem. Dept., Med. Sci. Inst., Univ. of Dundee, DUNDEE DDI 4HN, Scotland, U.K.
 a Regulation, mainly hormonal, of hepatic "detoxinating" enzymes during foetal and perinatal period. *Gallus gallus* (Aves), (Rodentia), *Homo sapiens* (Primates)
 b Developmental endocrinology. (Mammalia)
WITHERS, L.; Dr. – Bot. Labs., Univ. of Leicester, Adrian Bldg., LEICESTER LE1 7RH, England
 a Freezing preservation of embryos developing in cell cultures; freezing injury (electron microscopy)
WITKOWSKA, Ms. A.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krakowskie Przedmieście 26/28, 00-927 WARSZAWA, Poland
 a Preimplantation development in vivo and in vitro. *Mus musculus* (Rodentia)
 b Chromosomal aberrations in embryogenesis. Same species as a
WOELLWARTH, C. von; Dr.phil. – Münchingerstr. 5, 7257 DITZINGEN, B.R.D. (Germany)
 a Autonome Musterbildung in der Medullarplatte. *Triturus alpestris* (Urodela)
 b Determination der Kopforgane. Same species as a
 c Entstehung von Situs inversus durch Defekte und verschiedene äußere Einflüsse. Same species as a
WOERDEMAN, M. W.; M.D., Prof. (Emer.) – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
 a Lens development. (Aves; Mammalia)
WOLBERT, P.; Dr.rer.nat. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
WOLF, R.; Dr. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)
WOLF, U.; Dr. – Inst. für Humangenet. und Anthropol. der Univ., Albertstr. 11, 7800 FREIBURG, B.R.D. (Germany)
 a Sex determination and differentiation. (Mammalia)
WOLFF (HENNIG), Ms. Em.; D.Sc. – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75 PARIS Ve, France
 a Organ culture of cancer tumors taken directly from the patient: growth factors for long term culture; culture on yeast and liver dialysates; fractionation of dialysates of liver extracts. *Homo sapiens* (Primates)
WOLFF, Et. C.; D.Sc., Prof. – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75 PARIS 5e, France
 a Culture in vitro de longue durée de tumeurs malignes en présence et en l'absence d'organes embryonnaires. *Homo sapiens* (Primates) (avec Em. WOLFF)
 b La différenciation et l'intersexualité in vitro et in vivo des gonades embryonnaires par les méthodes des antihormones et des anticorps. (Aves)
WOLPERT, L.; Ph.D., Prof. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. Sch., LONDON W1P 6DB, England
 a Cellular basis of morphogenesis and pattern formation in limb development. *Gallus domesticus* (Aves)
WOLTZ, P.; Dr.spéc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
 a Morphogenesis of composite leaves: 1. correlations between the different leaf parts; 2. regeneration following various primordium lesions. *Gleditsia triacanthos* (Leguminosae)
WOOD, D. A. W.; Ph.D. – Microbiol. Dept., Glasshouse Crops Res. Inst., Rustington, LITTLEHAMPTON, BN16 3PU, England
 a Fruiting body initiation and development: 1. role of self-inhibitory compounds; 2. factors controlling initiation in axenic culture (pH, temperature, CO₂, nutrient limitation); 3. effect of metabolic inhibitors, including fungicides, on morphogenesis; 4. nutrient requirements and development of a defined medium for fruiting. *Agaricus bisporus* (Fungi)

- b Changes in activity of extracellular enzymes during development, particularly oxidases and cellulases. Same species as a
- WOOLLAM, D. H. M.; M.D., Sc.D., F.R.C.P. – Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
- a Mechanics and treatment of hydrocephalus. *Oryctolagus cuniculus* (Lagomorpha), *Homo sapiens* (Primates)
- b Investigation on reasons for malfunction of Opitz-Halter valva. Same species as a
- WOYKE, J.; Dr.habil., Prof. – Bee Div., Agric. Univ., 02-766 WARSZAWA 13, Ursynów, Poland
- a Developmental genetics; sex determination and development of diploid drones. *Apis mellifera* (Hymenoptera)
- b Development of reproductive organs and spermatogenesis of diploid drones (larval and pupal stage). Same species as a
- c Polyploidization of tissues during development of haploid and diploid drones and of queens and workers. Same species as a
- d Developmental genetics. *Apis cerana* (Hymenoptera)
- e Comparative study of embryonic development and hatching. *Apis florea*, *A. cerana indica*, *A. dorsata* (Hymenoptera)
- WRBA, H.; Dr.med., Dr.rer.nat., Prof. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, 1090 WIEN, Austria
- a Stoffwechsel in vitro. (Rodentia)
- b Eihautbildung, Differenzierung und Missbildung in vitro. (Rodentia)
- c Heterotransplantation. (Rodentia)
- d Diaplacentare Carcinogenese. (Rodentia)
- WRÓBLEWSKI, R.; Dr.med., Prof. – Dept. of Gen. Biol., Inst. of Biol. and Morphol., Silesian Acad. of Med., ul.K.Marksa 19, 41-808 ZABRZE, Poland
- a Regeneration of transplanted thyroid gland, especially role of C-cells. *Cavia porcellus* (Rodentia)
- WUHRMANN, P.; Dr.chem. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Ion determination. (Chironomidae, Diptera)
- WURSTER, B.; Dr.rer.nat. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
- a Stimulation of cell development by chemical signals; chemotaxis, oscillations. *Dictyostelium discoideum*, *Polysphondylium violaceum* (Acrasiales)
- WYLIE, C. C.; Ph.D. – Dept. of Struct. Biol., St. George Hosp. Med. Sch. Blackshaw Rd., Tooting, LONDON SW17 0QT, England
- a RNA and DNA metabolism during oogenesis and in early embryos. *Gallus domesticus* (Aves)
- b Differentiation of primordial germ cells. *Xenopus laevis* (Anura)
- c Genes for rRNA in oocyte and embryo. Same species as a
- WYSS, Ch.; Ph.D. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
- a Somatic cell genetics. *Drosophila* spec. (Diptera)
- WYSS, U. R.; Dr. – Inst. für Pflanzenkrankh. und Pflanzenschutz, Techn. Univ., Herrenhäuser Str. 2, 3 HANNOVER-Herrenhausen, B.R.D. (Germany)
- a Film analysis of embryonic development, especially cleavage pattern and hatching behaviour. *Trichodorus similis*, *Longidorus elongatus* (Nematoda)
- YACOB, A. Y.; M.Sc. – Unit Devl. Biol., Dept. of Zool., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland
- a Development of the pseudobranch (electron microscopy, histochemistry). *Poecilia reticulata* (Teleostei)
- YAMADA, T.; D.Sc., Prof. – Unité de Biol. du Dével., Inst. Suisse de Rech. Exp. sur le Cancer, ch.Boveresses, 1066 EPALINGES, Switzerland
- a Factors controlling dedifferentiation and redifferentiation of cultured iris epithelial cells, studied by cell injection combined with immunofluorescence for gamma crystallin. *Notophthalmus viridescens* (Urodela) (with S. P. MODAK)
- b Ultrastructural cytochemistry of cell surface alterations associated with dedifferentiation and redifferentiation of iris epithelial cells. Same species as a
- c Cell cycle in conversion of iris epithelium cell type in culture. Same species as a
- d Control of cell type by micro-injection of non-histone nuclear proteins into dedifferentiated iris epithelial cells in culture. Same species as a
- YOUNG, B. A.; M.D., Ph.D. – Dept. of Anat., Med. Biol. Ctr., Queen's Univ., BELFAST BT9 7BL, N.Ireland, U.K.
- a Electron microscopy of developing thyroid and pituitary. *Cervus* spec. (Artiodactyla), *Cavia porcellus* (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- b Organ culture of the pituitary. *Rattus* spec. (Rodentia), *Oryctolagus cuniculus* (Lagomorpha)
- ZAAAYER, Ms. J. J. P.; Ph.D. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands
- a Hormonal activity of fetal gonads and adrenal glands with regard to the development of the reproductive tract (organ culture). *Cavia porcellus* (Rodentia), *Homo sapiens* (Primates)
- ZABORSKI, P. – Lab. d'Embryol. Exp., Ctr. de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY sur SEINE, France
- a Cytogénétique et immunologie de la différenciation sexuelle des gonades. *Pelodytes punctatus* (Anura), *Pleurodeles waltl* (Urodela)

- ZACCANTI, F.; Dr., Prof. — Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLONGA, Italy
 a Hormonic regulation of ovarian and Bidder's organ oogenesis. *Bufo bufo* (Anura)
- b Effect of steroids on sex differentiation (autoradiography). *Rana dalmatina*, *R. latastei*, *R. esculenta*, *Bufo bufo* (Anura)
- ZACCHETI, Ms. A. M. — Ist. di Anat. Comp., Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
 a Retinal and neural structures in vitro. *Gallus domesticus* (Aves), *Mus musculus* (Rodentia)
 b In vitro studies of relations between nervous and muscle cells
- ZACCONE, G.; Dr., Prof. — Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy
 a Histochemical distribution of the enzymes of carbohydrate metabolism in the Golgi zones of yolk globules. *Aplysia depilans* (Gastropoda)
- ZAFIRATOS, C.; Dr.Sci. — Lab. of Zool., Univ. of Athens, Panepistimiopolis (Kouponia), 621 ATHENS, Greece
- ZÁHLAVA, J.; MUDr., CSc. — Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEŇ, Czechoslovakia
 a Developmental changes in the connections between medial geniculate body and homo- or contralateral cortical auditory areas in the gyrus ectosylvius anterior and medius. *Canis familiaris* (Carnivora)
 b The different influences of GABA (γ -aminobutyric acid) and some convulsants on the cortical auditory responses evoked by acoustic or by electrical stimulation of subcortical structures during postnatal development. Same species as a
- ZAITZEV, A. V.; Cand.biol.sci. — A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave. 33, MOSCOW 117071, U.S.S.R.
 a Specificity of spermatogenesis and oogenesis. *Esox lucius* (Teleostei)
 b Spermatogenesis and oogenesis in different temperature, ecological, and seasonal conditions. various spp. (Teleostei)
- ZANTINGE, A.; Drs. — Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands
 a Genome activity during development. *Schizophyllum commune* (Basidiomycetes, Fungi)
- ZEILMAKER, G. H.; Ph.D. — Dept. of Endocrinol., Growth, and Reprod., Erasmus Univ., P.O.B.1738, ROTTERDAM, Netherlands
 a Egg transplantation. *Mus musculus* (Rodentia)
 b Development of ectopic trophoblast. *Rattus norvegicus*, *Mus musculus* (Rodentia)
 c Energy requirements and fertility of matured oocyte. Same species as a
 d Deep-frozen preservation of embryos and subsequent development. Same species as a
 e Maturation and fertilization of oocytes in vitro. *Homo sapiens* (Primates)
- ZENZES, Ms. M. T.; Dr. — Inst. für Humangenet. und Anthropol. der Univ., Albertstr. 11, 7800 FREIBURG, B.R.D. (Germany)
 a Sex determination and differentiation. (Mammalia)
- ZERBIB, C. — Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
 a Oogenesis, vitellogenesis and fertilization. *Orchestia gammarellus* (Amphipoda, Crustacea)
- ZILCH, R. — I.Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)
 a Comparative embryology. *Diastylis rathkei* (Cumacea), *Penaeus trisulcatus*, *Atyaephyra desmarestii* (Decapoda) and other Malacostraca (Crustacea)
- ZILLER (SENGEL), Ms. C.; D.Sc. — Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
 a Development of neural crest cells (cell and tissue culture). *Gallus gallus*, *Coturnix c. japonica* (Aves)
- ZISSLER, D.; Dr.rer.nat. — Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
 a Ultrastructure of normal and UV-irradiated eggs and embryos. *Smittia* spec. (Chironomidae, Diptera)
- ŽIVKOVIĆ, Ms. N.; B.C. — Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. "Boris Kidrič", P.O.Box 522, 11001 BEOGRAD, Yugoslavia
- ŽNIDARIC (CONC), Ms. D.; Dr.biol. — Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia
- ZONNEVELD, B. J. M.; Drs. — Dept. of Genet., Univ. of Leiden, Kaiserstr. 63, LEIDEN, Netherlands
 a Developmental genetics of the fruiting bodies. *Aspergillus nidulans* (Ascomycetes)
- ZOTIN, A. I.; Dr.Biol., Prof. — Lab. of Devl. Biophys., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
 a Differential equations in developmental biology: 1. growth equations for determination of maximal possible age; 2. equation of differentiation: theoretical prerequisites. *Homo sapiens* and other spp. (Animalia)
- ZUBOVA, Ms. S. E.; Cand.biol.sci. — Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, U.S.S.R.
 a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
- ZÜCCATOSTA, A.; Dr. — Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy
 a Developmental pathology. *Homo sapiens* (Primates)
- ZUSMAN, I. N.; Cand.biol.sci. — A. N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.

- a Resistance and adaptation of the early embryo. *Testudo graeca*, *T. horstfieldi*, *Emys orbicularis* and others (*Chelonia*), *Gallus gallus*, *Anas domesticus*, *Coturnix coturnix* and others (Aves)
ZÜST, Ms. B.; Ph.D. – Inst. de Zool., Univ. de Fribourg, Pérolles, 1700 FRIBOURG, Switzerland
- a Development of bristles and bract induction. *Drosophila melanogaster* (Diptera)
- b Maintenance of determined state of imaginal discs after culture in vitro and transplantation in vivo. Same species as a

DIRECTORY OF INSTITUTES

with Members engaged in Developmental Biology

(geographical order)

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Names of Institute members who are not explicitly engaged in developmental biology are as a rule not listed, with the exception of the names of Institute directors.

(*) Asterisks indicate those Institute members who appear in the Directory of Names and Addresses with one or more research subjects. If all members of an Institute lack asterisks, this usually means that no information has been submitted by the Institute in 1977. Older information concerning such Institutes may be found in previous issues.

EUROPE

AUSTRIA

- Graz, Zool. Inst. der Univ.
FACHBACH, G.
Salzburg, Österr. Akad. der Wissenschaft.,
Inst. für Mol. Biol., Abt. Biol.
* KRATOCHWIL, K.
* LUGER, O.
Salzburg, Univ. Salzburg,
Lehrk. für Genet. und Entw. biol.
* CZIHAK, G. — Prof.
Lehrk. II, Bot. Inst.
* KIERMAYER, O. — Prof.
Wien, Univ. Wien. Inst. für Krebsforsch.
* WRBA, H. — Prof., Dir.
* DESSER-WIEST, Ms. L. — Res. Asst.
* VETTERLEIN, Ms. M. — Res. Asst.
* EBLING, Ms. L. — Res. Asst.
* MAZZUCO, K. — Res. Asst.

BELGIUM

- Antwerpen, State Univ. Ctr.,
Fac. of Sci., Lab. of Anat. & Embryol.
* VAKAET, L. C. A. — Prof.
* CALLEBAUT, M. E. — Docent
* HARRISON, F. — Asst.
* VAN ROELEN, C. — Asst.
Antwerpen (see also Wilrijk)
Bruxelles, Univ. Libre de Bruxelles,
Fac. de Méd., Lab. d'Anat. et d'Embryol. Hum.
 MULNARD, J. G. — Prof., Head
 PASTEELS, J. J. — Prof. (Emer.)
 MILAIRE, J. — Prof.
Inst. de Stomatol.
 POURTOIS, M.

Bruxelles (see also Rhode-St.-Genèse)

- Gent, Univ. of Gent,
Fac. of Med., Lab. of Anat.
 FAUTREZ, J. C. — Prof., Dir.
 FAUTREZ-FIRLEFFYN, Ms. N. J.
 DE MAEYER-CRIEL, Ms. G.
Dept. of Obstet. & Gynecol.
* THIERY, M. — Prof., Head
 DEROM, R. M. J.
Louvain, Cath. Univ., Rega Inst.
* SOBIS, Ms. H. — Sen. Asst.
Louvain-La-Neuve, Univ. de Louvain,
Inst. de Zool., Lab. d'Embryol.
 PICARD, J. J. — Prof.
Rhode-St.-Genèse, Univ. Libre de Bruxelles,
Fac. des Sci., Dépt. de Biol. Moléc.
* BRACHET, J. L. A. — Prof., Dir.
* FICQ, Ms. A. A. — Prof.
* VAN GANSEN, Ms. P. — Prof.
* BALTUS, Ms. E. J.
* TENCER, Ms. R. — Chef de Trav.
* HANOCQ-QUERTIER, Ms. J. A.
* DECROLY-BRIERS, Ms. M. — Asst.
* HANOCQ, Ms. F. A. — Asst.
* GEUSKENS, M.
* ALEXANDRE, H. L.
* THOMAS, C.
* HUBERT-VAN STEVENS, Ms. E. M. C.
* PAYS-DE SCHUTTER, Ms. A. G.
* STEINERT, Ms. G.
Wilrijk, Univ. of Antwerpen,
Dept. Cell Biol., Lab. of Microbiol.
* KONDO, M.
 MOENS, L. — Sen. Asst.
 SLEGERS, H. — Sen. Asst.
 HEIP, J. — Sen. Asst.
 SWENNEN, L. — Asst.
 VAN BROEKHOVEN, A. — Asst.
 METTRIE, R. — Asst.
 DE HERDT, E. — Asst.

BULGARIA**Sofia**, Med. Res. Inst.

ROUSSEV, G. K. - Assoc. Prof.

CZECHOSLOVAKIA**Bratislava**, Slovak Acad. of Sci.,

Inst. of Exp. Biol. & Ecol.

* ERDIELSKA, Ms. O.

* PRETOVÁ, Ms. A.

Brno, Czech. Acad. of Sci.

Inst. of Vert. Zool., Dept. of Morphol.

* ŠTĚRBA, O. - Head

* KRÁL, B. - Res. worker

Košice, School of Vet. Med.,

Dept. of Norm. Anat.

POPEŠKO, P. - Prof., Dir.

* RAJTOVÁ, Ms. V. - Asst.

* JANTOŠOVICHOVÁ, Ms. J. - Asst.

Plzeň, Charles Univ., Fac. of Med.,

Inst. of Histol. & Embryol.

* SLABÝ, O. - Prof., Dir.

* MATEJKOVÁ, M. - Docent

* SLÍPKOVÁ, J. - Docent

* KOČOVÁ-PECHAČKOVÁ, Ms. J. - Asst.

Inst. of Pathophysiol.

* SOBOTKA, P. - Asst. Prof., Head

* ROKYTA, R. - Asst.

* CHALOUPKA, Z. - Asst.

* ZÁHLAVA, J. - Asst.

* ŠAFANDOVÁ, J. - Sci. worker

Praha, Charles Univ.,

Fac. Gen. Med., Dept. of Anat.

* ČIHÁK, R. - Prof.

* LEMEZ, L. - Docent

* DOSKOČIL, M. - Docent

* SEICHERT, V. - Asst.

* DYLEVSKÝ, I. - Docent

* GRIM, M. - Asst.

* MRÁZKOVÁ-ŠEVČÍKOVÁ, Ms. O. - Asst.

* TRNKOVÁ-ŠVECDOVÁ, Ms. E. - Asst.

* DRUGA, R. - Asst.

Inst. of Embryol.

* VACEK, Z. - Prof., Dir.

* KRAUS, R. - Asst. Prof.

* MARTÍNEK, J. - Asst.

* JIRSOVÁ, Ms. Z. - Asst.

* ŠEVČENKO, Ms. G. - Asst.

* HACH, P. - Asst.

BRICHOVÁ-MÜLLEROVÁ, Ms. H. - Asst.

* MANDYSOVÁ, Ms. E. - Asst.

Inst. of Physiol.

* ŠTASTNÝ, F. - Asst.

Div. Embryophysiol. CNS, Res. Lab. Psychiat.

* SEDLACEK, J. - Asst. Prof.

Fac. of Sci., Dept. of Exp. Zool.

* SLÁDEČEK, F. - Prof., Dir.

* ROMANOVSKÝ, A. - Assoc. Prof.

* NEDVÍDEK, J. - Sen. Asst.

* HABROVÁ-VILÍMKOVÁ, Ms. V. - Sen. Asst.

* KNÍŽE, B. - Sen. Asst.

* PALEČEK, J. - Sen. Asst.

MÁCHA, J. - Asst.

* KNÍŽETOVÁ-MÝSLIVEČKOVÁ, Ms. H. - Asst.

Praha, Czech. Acad. of Sci.,

Dept. of Physiol.

* NOVÁK, V. J. A. - Head

ROHDENDORF, Ms. E. - Asst. head

SLÁMA, K. - Res. Assoc.

ZAMBRE, S. K. - Visit. scient.

Inst. of Exp. Med., Dept. of Teratol.

* JELÍNEK, R.

* DOSTAL, M. - Asst.

* PETERKA, M. - Asst

Inst. of Pharmacol.

* JIŘÍČKA, Z. - Scient.

* PŘESLÍČKOVÁ, Ms. M. - Asst.

Praha, Res. Inst. of Endocrinol.

* ŠULCOVÁ, Ms. J. - Res. Fellow

DENMARK**Aarhus**, Royal Dental Coll.,

Dept. of Anat.

* KNUDSEN, P. A. - Prof., Head

* BUGGE, J. - Lect.

* JOSEPHSEN, K. - Lect.

Dept. of Dent. Pathol. & Operat. Dent.

* FEJERSKOV, O. - Prof.

* THYLSTRUP, A. - Assoc. Prof.

* THESLEFF, I.

Dept. of Oral Pathol.

* ANDERSEN, Ms. L. - Asst. Prof.

Copenhagen, Carlsberg Found.,

Biol. Inst.

ZEUTHEN, E. - Prof., Dir.

HAMBURGER, Ms. K. - Asst.

Copenhagen, Finsen Inst.,

* PETERS, Ms. H. - Head of Dept.

* BYSKOV-SJOLTE, Ms. A.G.

* HØJAGER, Ms. B.

Copenhagen, Univ. of Copenhagen,

Inst. of Comp. Anat.

WINGSTRAND, K. G. - Prof.

NØRREVANG, A. - Lect.

Inst. of Gen. Zool.

* PEDERSEN, K. J. - Lect.

* JENSEN, P. V. - Lect.

Copenhagen, State Serum Inst.

* BIRCH-ANDERSEN, A.

State Vet. Serum Lab.

* BLOM, E. - Head of Dept.

Copenhagen (see also Helsingør)

Helsingør, Univ. of Copenhagen,

Marine Biol. Lab.

* NIELSEN, C. - Lect.

Roskilde, Roskilde Univ. Ctr.

* FERNHOLM, B. - Prof.

ENGLAND (see UNITED KINGDOM)**FINLAND****Helsinki**, State Serum Inst.,

Centr. Publ. Health Lab.

* ROSTEDT, Ms. I. B.

Helsinki, Univ. of Helsinki,

Dept. of Bot.

* SIMOLA, Ms. L. K. - Prof.

Dept. of Med. Biol.

* ANTILA, E. J. - Asst.

Finland

- Children's Hosp.
 RAPOLA, M. H. J. - Chief Pathol.
 KAITILA, I.
- III. Dept. of Pathol., Lab. of Exp. Embryol.
 * SAXÉN, L. O. - Prof.
 * KARKINEN-JÄÄSKELÄINEN, Ms. M.
 * WARTIOVAARA, J. J.
 * THESLEFF-SAXÉN, Ms. I. P. N.
 * LEHTONEN, E. I.
 * NORDLING, S.
 * VIRTANEN, I.
 * VAHERI, A.
 * EKBLOM, P.
 * SALONEN, J. E. K.
 * STENMAN, S.

Dept. of Zool.

- PANFLIUS, S. - Res.worker
 FORSSKÄHL, B. - Res.worker
- Dept. of Zool., Lab. of Exp. Embryol.
 * TOIVONEN, S. I. - Prof. (Emer.)

- * LEIKOLA, A. H. A. - Lect.
 * TÄHKÄ, Ms. E. S.

* Kaprio, E. A.

Turku, Univ. of Turku,

Dept. of Bot.

- KALLIO, P.
 LEHTONEN, J.

Lab. of Electr. Micr.

- * PELLINIEMI, L. J.

Dept. of Forensic Med.

- * RAEKALLIO, J. - Prof., Chairman
 * MÄKINEN-LÖNNBERG, Ms. P. L. - Res.Assoc.
 * VILJANTO, J.

FRANCE

Arcachon, Univ. de Bordeaux I,

Inst. de Biol. Marine

- * CAZAUZ, C. - Maître Asst.
 * CASTEL, J.

Aubière, Univ. de Clermont,

Lab. de Biol. Anim.

- * LUTZ, H. - Prof., Dir.
 * LUTZ (OSTERTAG), Ms. Y. - Maître de Rech. CNRS
 * HUBERT, J. - Chargé de Rech. CNRS
 * FARGEIX, N. - Maître Asst.
 * DIDIER (MARTIN), Ms. E. - Maître Asst.
 * DAVID (BÖGLI), Ms. D. - Chargée de Rech. CNRS

- * BRUEL, Ms. M. T. - Maître Asst.

- * MEINIROL, R. - Att. de Rech. CNRS

- * MEINIROL (BOUTRON), Ms. A. - Att. de Rech. CNRS

- * DIDIER, R. - Att. de Rech. CNRS

- * HÉNON, Ms. C. - Asst.

Azay-le-Ferron, Univ. de Tours,

Fond. Hersent-Luzarche, Ctr. de Biol.

- BERTON (PECHEUX), Ms. F.

- BERTON, J. P.

Banyuls-sur-Mer, Univ. Paris. VI,

Lab. Arago

- * MARTHY, H. J. - Att. de Rech. CNRS

- * BOLETZKY, S. von - Att. de Rech. CNRS

Besançon, Univ. de Besançon

Fac. des Sci. et des Techn..

Lab. de Zool. et Embryol.

- * GOMOT, L. - Prof.

- * BRIDE (VUILLET), Ms. M. - Maître Asst.
 * PROPPER, A. - Asst.
 * BRIDE, Ms. J. - Chargée de Rech. CNRS
 * GRIFFOND (ROGNON), Ms. B. - Att. de Rech. CNRS
 * MARCHAND, C. R. - Asst.
 * DERAY, A. - Att. de Rech. CNRS
 * BIÉTRY, Ms. A. F. - Asst.
 * COLARD, C.
 Bobigny, C. H. U. de Bobigny
 Lab. de Biol. de Dével.
 * CHALUMEAU, Ms. M. T. - Maître de Conf. Lab. de Neurobiol. et Micr. Quant.
 * BISCONTÉ, J. C.
 Bordeaux, Univ. de Bordeaux II
 Lab. d'Histol. et Embryol.
 * STOLL, R. - Prof., Dir.
 * MARAUD, R. - Prof.
 * FAUCOUNAU, Ms. N. - Asst.
 * RASHEDI, M. - Asst.

Bordeaux (see also Arcachon, Talence)

- Brest, Univ. de Bretagne Occidentale,
 Fac. des Sci., Lab. de Zool.

- * LUCAS, A. - Prof.

- * LE PENNEC, M. L. M. - Asst.

- * PRIEUR, D. M. - Res.worker

- * LE ROUX, Ms. S. - Techn.

- Caen, Univ. de Caen, UER de Sci.,
 Dépt. de Biol.-Écol., Lab. d'Embryol.

- * SIGNORET, J. - Prof.

- * SAUSSEY, M. - Prof.

- * MARTIN, R. P. - Maître Asst.

- * NAMUR, Ms. P. - Asst.

- * MOUTON, Ms. C. - Asst.

- * LEFRESNE, J. - Collab. Techn. CNRS

- Châtenay-Malabry, Fac. de Pharm. Paris-Sud,
 Lab. de Biol. Cell.

- * MESTRE, J. C. - Prof.

- * HARRY, Ms. E. - Asst.

- * VANNEREAU, Ms. A. - Asst.

Lab. de Bot.

- * GUIGNARD, J. L. - Prof., Head

- * LY THI, Ms. B. - Maître Asst.

- Clermont-Ferrand, Fac. de Méd.,
 Lab. d'Histol., Embryol., Cytogenét.

- * TURCHINI, J. P. - Prof.

- * MALET, P. - Prof.

- * PERISSEL, B. - Chef de trav.

- * CHARBONNÉ-GOFTT, Ms. F. - Asst.

- * GENEIX, A. - Chef de trav.

- * JAFFRAY, J. Y. - Asst.

- * MORIN, Ms. J. - Asst.

Clermont-Ferrand (see also Aubière)

Créteil, Univ. Paris XII,

Fac. de Méd., Lab. de Biochim. du Tissue Conj.

- * ROBERT, L. - Dir. Rech. CNRS

- * MOCZAR, Ms. M. - Charg. Rech. CNRS

Dépt. d'Histol.-Embryol.

- * CHEVREAU, J. P. - Prof.

- * CABANIER, Ms. M. J.

- UER de Sci., Lab. de Biol. Anim.

- * LE MOIGNE, A. - Prof.

- * MARTELLY, Ms. I. - Maître Asst.

- * FRANQUINET, R. - Maître Asst.

Gif-sur-Yvette, C.N.R.S.,

Lab. de Génét. Évol. et de Biomét.

- BERREUR-BONNENFANT, Ms. J.

- GINSBURGER-VOGEL, T. - Maître Asst.

- FRIED (MONTAUFIER), Ms. M. C.

- ANDRIEUX, Ms. N.

- CARRÉ, Ms. M. C.

Ctr. de Génét. Moléc.
* DENIS, H. A.

* WEGNEZ, M.

* MAZABRAUD, A. - Asst.

* SIMPSON, Ms. P.

Grenoble, Univ. Scient. et Méd.,

Dépt. de Biol., Lab. de Zool. et Biol. Anim.

* SENGEL, Ph. - Prof., Dir.

* CHIBON, P. - Prof.

* KIENY, Ms. M. A. SENGEL - Maître de Rech. CNRS

* BULLIÈRE, D. - Maître Asst.

* MANDARON, P. M. - Maître Asst.

* MAUGER (GIRARD), Ms. A. - Maître Asst.

* BOUDET, J. L. - Maître Asst.

* GEORGES, Ms. D. - Maître Asst.

* CHEVALLIER, A. D. - Maître Asst.

* SAXOD, R. - Maître Asst.

* DHOUAILLY, Ms. D. - Maître Asst.

* PAUTOU (MÉRIC), Ms. M. P. - Asst.

* BULLIÈRE (CHALLANDE), Ms. F. - Asst.

* BRUGAL, G. J. Y. - Asst.

* Verna, J. M.

* GUILLERMET, Ms. C.

* GIROUD, Ms. F.

* THÉVENET, Ms. A. - Asst.

Ivry-sur-Seine, Univ. Paris VI,

Ctr. de Rech. du CNRS, Lab. d'Embryol. Exp.

* COLLENOT, A. - Prof.

* ANDRIEUX, B. - Maître Asst.

* LAUTHIER, M. - Maître Asst.

* GOUNON, P. - Asst.

* ZABORSKI, P. - Asst.

Ctr. de Rech. d'Ivry,

Lab. de Génét. du Dév.

* LACROIX, J. C. - Prof.

* ANGELIER-DELOBEL, Ms. N. - Att. de Rech.

* LOONES, Ms. M. T. - Asst.

* MOREAU, Ms. N. - Asst.

* DENOULET, P. - Asst.

* MULLER, J. P. - Asst.

Jouy-en-Josas, Ctr. Natl. de Rech. Zootechn.,

Lab. de Physiol. Anim.

* SZÖLLÖSI, D. - Prof. Assoc.

* TORRÈS (WINTENBERGER), Ms. S. -

Maître de Rech.

* FLÉCHON, J. E.

Kremlin-Bicêtre, Fac. de Méd.,

Lab. d'Histol.- Embryol.

DAVID, G. - Prof.

Lille (see Villeneuve)

Lyon (see Villeurbanne)

Marseille, Univ. d'Aix-Marseille,

Fac. de Méd., Lab. d'Histol. - Embryol. II

STAHL, A. - Prof.

CARLON-CROTTE, Ms. N. - Chef de Trav.

KOPP, F. - Asst.

MIRRE, C. - Asst.

Stat.Marine d'Endoume

* EMIG, C. C. - Charg. Rech. CNRS

Univ. d'Aix-Marseille III,

Fac. St.-Jérôme, Lab. de Morphogen. Végét.

* NEVILLE, P. A. J. - Prof.

* WOLTZ, P. - Maître Asst.

* GUILLEMONAT, Ms. N. - Asst.

* AMER, M. - Cherch.

* EL HAJZEIN, B. - Cherch.

* BERNARD, Ms. J. - Cherch.

* DOUAY, F. - Cherch.

* SANFO, S. - Cherch.

Marseille, Univ. de Provence, Ctr. St. - Charles, Lab. de Morphogen. Exp. et Caryol.

* REYNAUD, G. R.

Lab. de Morphogénét. Anim.

* CHANDEBOIS, Ms. R. - Prof.

COULOMB-GAY, Ms. R. - Maître Asst.

HOARAU, F. - Maître Asst.

CORNEC, J. P. - Maître Asst.

Marseille, Ctr. Univ. de Marseille-Luminy, Dépt. de Biol., Lab. d'Histol. et de Morphogén. Anim.

* THOUVENY, Y. R. - Prof.

* MARILLEY, Ms. M. - Asst.

* COULON, Ms. J. - Asst.

* FONTÉS, M. - Att. de Rech.

Metz, Inst. Européen d'Écol.

* PIHAN, J. C.

Montpellier, École Prat. Hautes Études, Lab. de Biogeogr. et Écol. des Vertebr.

* BONS, J.

Montpellier, Univ. de Montpellier, Fac. de Méd., Lab. d'Histol.-Embryol.

SENTEIN, P. - Prof.

* GABRION (TROTIGNON), Ms. J. B. - Asst.

TEMPLE, D. - Asst.

ROUY-GRABIÉ, Ms. S. - Asst.

HARRICANE-VORS, Ms. M. C. - Asst.

Lab. de Pathol. Gén.

* CADILHAC, J. C. - Prof.

Montpellier, Univ. des Sci. et Techn.

Lab. de Neurophysiol.

* MARTY, R. J. L. - Prof.

* FULCRAND, J. - Maître Asst.

Lab. de Zool. II (Morphol. et Écol.)

* LEGENDRE, R. - Prof.

* EMERIT, M. - Maître Asst.

* CASSAGNE-MÉJEAN, Ms. F. - Maître Asst.

* BONARIC, J. C. - Asst.

Montpellier (see also Nîmes)

Mont-Saint-Aignan, Univ. de Rouen, Fac. des Sci., Lab. de Physiol. Anim.

REBER (PELLÉ), Ms. A. - Asst.

Moulis, Lab. Souterrain CNRS

* JUBERTHIE, C. - Sous-Dir.

JUBERTHIE (JUPEAU), Ms. L. - Maître de Rech.

* DURAND, J. P. - Charg. de Rech.

* LESCHER-MOUTOUË, Ms. F. - Charg. de Rech.

* MUÑOZ CUEVAS, A. - Att. de Rech.

* DELAY, B. - Att. de Rech.

Nancy, Univ. Nancy I,

Lab. of Bot. II (Cytol.)

* DEXHEIMER, J. - Prof.

* ROHR, R.

Fac. Méd. B, Lab. d'Embryol. et Biol. Méd.

* DOLLANDER, A. - Prof.

* GRIGNON, G. - Prof.

* HATIER (AUTELIN), Ms. R. - Charg. Rech. CNRS

* IVANOFF-GERARD, Ms. A. - Asst.

* GERARD, H. - Asst.

* GUEDENET, J. C. - Asst.

* JEANVOINE, Ms. G. - Asst.

* FOLIGUET, B. - Asst.

* MALAPRADE, Ms. D. - Collab. Tech.

* FRANCO, Ms. N. - Biol. CNRS

* MARCHAL, L. - Biol. CNRS

* LARDE, Ms. P. - Asst. libre

* KOHLER, F. - Moniteur

* CHOFFEL, Ms. C. - Student

- Lab. de Physiol. Végét.
 * BOTTON, B. - Asst.
 Lab. de Zool. Gén.
 * STÉPHAN, F. - Prof.
 * STÉPHAN (DUBOIS), Ms. F. - Maître Rech.
 * SCHILT, J. - Maître Asst.
 * BAUTZ (PORTMANN), Ms. A. M. - Maître Asst.
 * LANOT, R. - Charg. Rech.
 * BAUTZ, A. - Asst.
 * ARTIS, J. P.
- Nantes, Univ. de Nantes,
 UER des Sci. Nat., Lab. d'Embryol.
 * HOUSAINT, Ms. E. - Maître Asst.
 * JOTEREAU, Ms. F. J. - Asst.
- Nîmes, Univ. de Montpellier,
 Fac. de Méd., Dépt. d'Anat.
 * BOSSY, J. G. M. - Prof.
- Nogent-sur-Marne, Inst. d'Embryol. du C.N.R.S.
 et du Coll. de France
 * LE DOUARIN (CHAUVAC), Ms. N. M. - Prof., Dir.
 * CROISILLE, Y. - Sous-Dir.
 * DUBOIS, R. - Sous-Dir.
 * BEAUPAIN (CREPY), Ms. D. - Charg. Rech.
 * BEAUPAIN, R. - Charg. Rech.
 * COCHARD, P.
 * CUDENNEC, C. A. - Att. Rech.
 * CUMINGE, Ms. D. - Asst. Rech.
 * DAMERON, Ms. F. - Charg. Rech.
 * DESVEAUX-CHABROL, Ms. J. - Biol.
 * DIETERLEN (LIÈVRE), Ms. F. - Maître Rech.
 * FEDECKA (BRUNER), Ms. B. - Charg. Rech.
 * FISCHER, J. L. - Biol.
 * FONTAINE, Ms. J. - Att. Rech.
 * GASC, J. M. - Asst.
 * GUMPEL (PINOT), Ms. M. - Charg. Rech.
 * LAZARD (HAUBEN), Ms. L. - Charg Rech.
 * LELIEVRE, Ms. C. S. - Att. Rech.
 * MARIN (LEWIN), Ms. L. - Charg. Rech.
 * MARTIN (FORGET), Ms. C. - Biol.
 * REYSS-BRION (DUCREAU), Ms. M. - Charg. Rech.
 * SALAÜN, Ms. J. - Charg. Rech.
 * SALZGEBER, Mr. B. - Maître Rech.
 * SCHEIB (PFLEGER), Ms. D. - Maître Rech.
 * SMITH, E. J. C. - Att. Rech. CNRS
 * STRUDEL, G. - Dir. du Lab.
 * TEILLET, Ms. M. A. - Att. Rech.
 * VASSE, J. - Charg. Rech.
 * ZILLER (SENGEL), Ms. C. - Ing.
- Orsay, Univ. Paris XI (Paris-Sud),
 Lab. de Biol. Anim.A
 LENDER, T. - Prof.
 HUET, C. - Maître Asst.
 HUET, M. - Maître Asst.
 SAUZIN-MONNOT, Ms. M. J. - Maître Asst.
 LAVERDURE, Ms. A. M. - Charg. Rech.
 CNRS
- Lab. de Biol.-Vertébrés
 BÉAUMONT, A. - Prof.
 HOURDRY, J. - Maître Asst.
 REGARD, Ms. F. - Asst.
 DAUGERAS, Ms. N. - Asst.
 Lab. d'Entomol. et Écophysiolog. Exp.
 LAUGÉ, Ms. G. - Maître Asst.
 PÉTAVY, G. - Asst.
 TERMIER, M. - Asst.
- Lab. de Zool.
 * RAMADE, F. - Prof., Dir.
 * BLUZAT, R. R. - Maître Asst.

- * LABOUR, G. R. - Asst.
 * MARCHAL-SEGault, Ms. D. - Asst.
 * MAISONHAUTE, C. - Att. Rech.
 Orsay, Fond. Curie, Inst. du Radium,
 Sect. Biol.
 * LOMBARD (DES GOUTTES), Ms. M. N. - Charg. Rech. CNRS
 * NADAL, C. - Charg. Rech. CNRS
 Paris, Coll. de France, Inst. d'Embryol.
 * WOLFF, Et. C. - Prof., Dir. Rech. hon.
 * WOLFF (HENNIG), Ms. E. M. - Dir. Rech. hon.
- Lab. de Physiol. du Dével.
 * JOST, A. D. - Prof.
 Paris, École Norm. Sup., Lab. de Zool.
 * LAFONT, R. D. A. - Maître Asst.
 * BOUTHIER, A. - Maître Asst.
 * TARROUX, P. J. - Asst.
 * MAUCHAMP, B. L. - Asst.
 * BLAIS, Ms. C. - Asst.
 * BAILLY, Ms. S. E.
 Paris, Hôp. Necker Enfants Malades,
 INSERM U 77, Rech. Pathol. Pédiat.
 * ROUSSEAU-MERCK, Ms. M. F. - Charg. Rech.
- Paris, Inst. Océanogr., Lab. de Physiol.
 * OLIVEREAU, Ms. M. M. A. - Dir. Rech.
 Paris, Institut Pasteur,
 Lab. d'Histo-Pathol.
 * GAILLARD, J. A. - Chef de Lab.
 Paris, Maternité de Port Royal,
 Lab. de Chim. Horm.
 CEDARD (WILLSTAETTER), Ms. L. - Maître Rech.
 GUICHARD (CHAVENAT), Ms. A. - Att. Rech. CNRS
 IKONICOFF (KAPLAN), Ms. L. - Charg. Rech. INSERM
 ALSAT, Ms. E. - Chem.
 HUBERT, Ms. C.
 Paris, Museum d'Hist. Nat.,
 Lab. de Biol. des Invert. Marins
 LEVI, C. - Prof.
 * LENICQUE, P. M. - Maître Rech. CNRS
 * D'HONDRT, J. L. - Att. Rech.
 * BOURY ESNAULT, Ms. N. - Att. Rech.
 * DOUMENC, D. - Asst.
 * VAN PRAET, M. - Asst.
 Paris, Inst. Natl. Agron., Lab. de Zool.
 PINET, J. M. - Maître Asst.
 Paris, Univ. Paris V (René Descartes),
 Fac. de Méd., Lab. d'Anat.
 DELMAS, A. - Prof., Dir.
 BASTIAN, D. - Chef de Trav.
 UER Études Méd. et Biol.
 Lab. de Biol. du Dével.
 * GALLIEN, C. L. - Prof.
 * GUYOT-LENFANT, Ms. M. - Maître Asst.
 * LABROUSSE, J. P. - Maître Asst.
 Lab. d'Histo-Embryol.
 * AUROUX, M. - Prof.
 UER Bioméd., Lab. d'Embryol.
 * TUCHMANN-DUPLESSIS, H. - Prof.
 * MERCIER (PAROT), Ms. L. - Maître Rech.
 * ROUSSEL, C. - Chef de Trav.
 Inst. d'Histochem. Méd.
 * WEGMANN, R. - Prof., Dir.
 * ILIES, A. - Asst.
 * TEWARI, Ms. N.
 Paris, Univ. Paris VI (P. et M. Curie)
 Lab. de Biol. de la Reprod.
 * PANIGEL, M. - Prof.

- * LEGRAND, Ms. C. - Asst.
- * GUIET, Ms. A. BARA - Asst.
- * CHALLIER, J. C. - Asst.
- * BARA, M. C. - Asst.
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- * GUERRE-MILLO, Ms. M. - Agr. Univ.
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- * MOHALLAL, M. E. - Res. Assoc.
- UER de Biol. -Zool.
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- Lab. de Biol. Anim.
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- Lab. d'Immunol. Comp.
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- Lab. de Physiol. du Dévl.
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- Lab. de Physiol. des Insectes
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- * SOYEZ, D.
- Paris, Univ. Paris VII
- Lab. d'Anat. Comp.
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- * IMAIZUMI, Ms. M. T. - Att. Rech. CNRS
- * THERWATH, A. - Att. Rech. CNRS
- Fac. de Méd. Pittié-Salpêtrière,
- Lab. d'Immunobiol., Pathol. Gén. et Exp
- VIZA, D.
- Fac. de Méd. Saint-Antoine,
- Lab. d'Embryol. et de Cytogénét.
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- * HORVÁTH, Ms. C. - Assoc. Prof.
- Paris (see also **Banyuls, Châtenay-Malabry, Créteil, Ivry-sur-Seine, Orsay, Sannois, Villefranche**)
- Poitiers, Univ. de Poitiers,
- Fac. des Sci., Lab. de Physiol. Anim.
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- Lab. de Zool. et de Biol. Cell.
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- Reims, Univ. de Reims,
- Fac. des Sci., Lab. de Biol. Cell.
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- Lab. de Physiol. Anim.
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- Rennes, Univ. de Rennes, Fac. Sci. Biol.,
- Lab. de Biol. Anim. 1er Cycle
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- Rouen (see Mont-Saint-Aignan)**
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- PIEAU, C. - Att. Rech. CNRS
- Strasbourg, C.N.R.S., Ctr. de Neurochim.
- MANDEL, P. - Prof.
- Strasbourg, Univ. Louis Pasteur,
- Lab. de Zool. et d'Embryol. Exp.
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- Strasbourg, Unit. de Rech. de l'INSERM
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- Fac. de Méd., Lab. d'Embryol.
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- Talence, Univ. de Bordeaux I,
- Lab. de Biol. Anim. A.
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- Tours (see Azay)
- Ville d'Avray
ROSTAND, J.
- Villefranche-sur-Mer, Univ. Paris VI, Stat. Zool.
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- Villejuif, Inst. Gustave-Roussy, Lab. de Physiol.-Pathol. Cell.
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- Villeneuve d'Ascq, Univ. Sci. et Techn. de Lille, Serv. de Biol. Anim.
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- Lab. d'Embryol.
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- Lab. de Morphol. Exp.
- * BOILLY, B. - Prof.
- Villeurbanne, Univ. de Lyon I, Dépt. de Biol. Gén. et Appl.
- Lab. Assoc. au C.N.R.S.
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GERMANY (B.R.D.)

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- Naturw. Fak., Inst. für Zool.
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- Bad Godesberg (see Bonn)
- Berlin, Freie Univ., Med. Fak., II. Anat. Inst.
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- Inst. f. Pflanzenphysiol. u. Zellbiol.
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- Dept. of Obstet. & Gynecol.
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- Pharmakol. Inst., Abt. Embr. Pharmakol.
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- WE Inst. für Psychol.
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- Berlin, Schering A. G., Dept. Endocr. Pharmacol. I
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- Lehrst. für Spez. Zool.
- * GRÜN, G. - Asst.

Bonn-Bad Godesberg,
Dtsche Forsch.-u. Versuchsanst. f. Luft-u. Raumfahrt e.V.,
Inst. für Flugmedizin
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Bonn, Univ. Bonn,
Anat. Inst., Abt. f. Exp. Biol.
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Anat. Inst., Abt. f. Neuroanat.
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Pharm. Inst.
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Braunschweig, Techn. Univ., Zool. Inst.
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Bremen, Univ. Bremen,
Inst. of Genet. & Human Genet.
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Ditzingen,
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Düsseldorf, Univ.,
Inst. für Allg. Biol.
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Zool. Inst.
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Erlangen, Univ. Erlangen-Nürnberg,
Anat. Inst.
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Pathol. Inst.
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I. Zool. Inst.
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* HEIMLER
Essen, Emschergenossenschaft
* HESEN, D. te
Frankfurt, Univ. Frankfurt/Main,
Fachber. Biol., Argr.Kinemat.Zellforsch.
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Inst. für Humangenet.
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Fachber. Biol (Zool.)
Arb. gr. Neuro- u. Rezeptorphysiolog.
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Freiburg, Univ., Biol. Inst. I (Zool.)
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* ZISSSLER, D. - Asst.

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* NÜBLER-JUNG, Ms. K. - Res. Assoc.
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Biol. Inst. II, Lehrst. für Botanik.
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Biol. Inst. III
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Inst. f. Humangenet. u. Anthropol.
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Giessen, Univ., Ber. Humanmed.,
Ztr. für Anat. u. Cytobiol.
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Inst. f. allg. u. spez. Zool.
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Göttingen, Univ., Anat. Inst.
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BLECHSCHMIDT, M. - Asst.
Hamburg, Univ.
Anat. Inst., Abt. Neuroanat.
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Univ.-Frauenklinik
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Inst. für Hydrobiol. u. Fisch. Wiss.
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* BRAUM, E. - Dozent
Hannover, Techn. Univ.,
Fachgeb. Entomol. u. Ökol.,
Inst. f. Pflanzenkrankh. u. Pflanzenschutz
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* WYSS, U. R. - Oberasst.
Heidelberg, Univ.,
Bot. Inst.
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ESSIGMANN-CAPESIUS, Ms. I. - Priv.
Dozent
BEIDERBECK, R. - Akad.Rat
KNOOP, B. - Asst.
* MÄDER, M. - Asst.
Physiol. Lehrst., Zool. Inst.
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* JANTZEN (WILKENS), Ms. H. L. M. - Asst.
* BODE, H. J. - Asst.
Heidelberg, German Canc. Res. Ctr.,
Inst. of Cell Res.
* SEKERIS, C. E. - Prof.
* PETZELT, C. P. - Asst.
Kaiserslautern, Univ.,
Div. of Cell Biol., Dept. of Biol.
* NAGL, W. - Prof.

Karlsruhe, Univ. (T.H.), Zool. Inst. II
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 Kassel, Univ.,
 Arb. gr. Pflanzenphysiol.
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 Kiel, Univ.,
 Med. Fak., Anat. Inst.
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 * KOECKE, J. - Wiss. Asst.
 Köln, Max-Planck Inst. f. Hirnforsch.,
 Abt. Allg. Neurol.
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 Köln, Univ.,
 Anat. Inst.
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 Inst. für Entw. physiol.
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 * LEHMANN, K. - Asst.
 * VEDDER, F. D. - Akad. Rat
 * TESCH, K. H.
 Mainz, Univ.,
 Anat. Inst.
 VOLLRATH, L. - o. Prof.
 Inst. für Spez. Bot. u. Bot. Garten
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 Inst. für Allg. Zool.
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 Marburg, Univ.,
 Fachber. Biol.
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 Fachber. Biol. - Zool.
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 Orthop. Klinik
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 Med. Sch., Physiol.-Chem. Inst. I.
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 * SCHELLER, K. - Asst.
 Zool. Inst.
 KOECKE, H. U. - Prof., Dir.
 KIRCHNER, C. - Dozent
 Martinsried, Max-Planck Inst. f. Biochem.,
 Dept. of Insect Biochem.
 * REMBOLD, H. - Prof.
 München, Univ., Zool. Inst.
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 MORITZ, K. B.
 Münster, Univ.,
 Anat. Inst.
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 Inst. für Humangenet.
 * LENZ, W. - Prof., Dir.

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 Zool. Inst.
 Lehrst. für Spez. Zool.
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 Zool. Inst., Arb. gr. Muskelphysiol.
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 Osnabrück, Univ.,
 Fachber. 5: Biol.
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 Regensburg, Univ., Fachber. Biol.
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 Saarbrücken, Univ. des Saarlandes,
 Inst. für Genet.
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 * SEYDEWITZ, H. H. - Collab.
 * BEETZ, Ms. B. - Grad. Stud.
 * STEINMETZ, H. - Grad. Stud.
 Fachber. Biol. (Zool.)
 * DFWES, E.
 Starnberg, Bayer. Landesanst. für Fisch.
 FLÜCHTER, J.
 Stuttgart, Univ. Hohenheim (LH),
 Inst. für Histol. u. Embryol.
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 Tübingen, Max-Planck Inst. f. Virusforsch.,
 Abt. III
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 Tübingen, Univ., Inst. für Biol. III
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 Tübingen
 * SCHWARTZ, V. - Prof.
 Wilhelmshaven, Max-Planck Inst. f. Zellbiol.
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 Würzburg, Univ.,
 Med. Fak., Anat. Dept.
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 Zool. Inst.
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 WOLBERT, P. - Asst.
 NUSS, Ms. E. - Asst.

GERMANY (D.D.R.)

Jena, Friedr. Schiller Univ.,
 Sekt. Biol.- Pflanzenphysiol.
 AUGSTEN, H. - Prof.
 Rostock, Wilhelm-Pieck Univ.,
 Ber. Med., Anat. Inst.
 SCHUMACHER, G. H. - Prof., Dir.
 FANGHÄNEL, J. - Dozent
 FREUND, Ms. E. - Wiss. Mitarb.

GREECE

Athens, Univ.,

Dept. of Gen. Biol.

* FRAGOULIS, E.

Zool. Lab. & Museum

KIORTSIS, V. - Prof., Dir.

ZAFIRATOS, C.

VEINI (HARITOS), Ms. M. - Asst.

HUNGARY

Budapest, Children's Hosp. "Paul Heim",

Dept. of Congen. Malform.

BERNDÖRFER, A. - Chief Surgeon

Budapest, Hung. Acad. of Sci.,

Inst. of Exp. Med., Morphol. Dept.

* GYÉVÁI (TÓTH), Ms. A. T. - Sen. Res. Worker

* BUKOLYA, B. - Res. Worker

Inst. of Exp. Med., Pathophysiol. Dept.

* STARK, E. - Prof.

MIHÁLY, K. - Res. Worker

Budapest, Res. Inst. of Pharm. Chem.

* DRUGA, Ms. A.

* NYITRAY, Ms. M.

* SZASZOVSZKY, Ms. É.

Budapest, Semmelweis Univ. of Med.,

Dept. of Biol.

* CSABA, G. - Prof.

* TÖRÖK, L. J. - Asst. Prof.

Debrecen, Univ. Med. School,

Dept. of Anat.

* SZÉKELY, G.

Szeged, Univ. Med. School,

Dept. of Anat.

* CSILLIK, B. - Prof., Chairman

* KÁLMÁN, G. - Res. Asst.

* KNYIHÁR, Ms. E. - Res. Asst.

* GAJÓ, Ms. M. - Res. Asst.

Dept. of Ophthalmol.

* NYIRI, S.

Tápiószéle, Nat. Inst. for Agric. Variety Test.,

Physiol. Dept., Tissue Cult. Lab.

* HESZKÝ, L. E. - Head Dept.

IRELAND

Dublin, Univ. Coll., Zool. Dept.

* RAMSAY (KUNZ), Ms. Y. W. - Lect.

* DUKE, E. J. - Lect.

* WISE (WYLES), Ms. C. - Res. Asst.

* YACOB, A. Y.

ITALY

Arco Felice (Napoli)

Cons. Naz. delle Ricerche,

Lab. of Molec. Embryol.

* AUGUSTI (TOCCO), Ms. G.

* DE PETROCELLIS, Ms. B.

* GERACI, G.

* GRIPPO, P.

METAFORA, S.

MILLONIG, G.

* PARISI, F.

Bari, Univ. of Bari,

Fac. of Med., Inst. of Human Anat.

* AMPRINO, R. M. - Prof., Dir.

* CAMOSSO, Ms. M. E. - Prof.

* MITOLO, V. - Asst.

* RONCALI, Ms. L. - Asst.

* AMBROSI, G. - Asst.

Bologna, Univ.,

Fac. of Sci., Inst. of Zool.

* VANNINI, E. - Prof., Dir.

* STAGNI, Ms. A. - Prof.

* GARDENGHI, G. - Prof.

* ZACCANTI, F. - Prof.

* DI GRANDE, Ms. F. - Asst.

* SABELLI, B. - Asst.

* TOGNATO, G. - Asst.

Camerino, Univ.,

Anthropol. Inst.

* TESTA-BAPPENHEIM, I. - Prof., Dir.

* ZUCCATOSTA, A. - Res.

* CAPPANNINI, M. - Res.

CIOPPETTINI (CONTI), Ms. M. - Guest Worker

Catania, Univ.,

Ist. di Anat. Umana Normale

* PASSAPONTI, A. - Prof., Dir.

* MARRARO (CARNAZZA), Ms. M. L. - Asst. Prof.

* SERRANTINO (DI DINO), Ms. G. - Res.

* IANNELLO, Ms. A. - Asst.

Ferrara, Univ.,

Fac. of Med. & Surg.,

Inst. of Histol. & Gen. Embryol.

* CARINCI, P. - Prof., Dir.

* BECCHETTI, E. - Asst.

* EVANGELISTI, Ms. R. - Res.

* STABELLINI, Ms. G. - Res.

* CALASTRINI, Ms. C. - Res.

* CARUSO, A. - Asst.

Fac. of Sci., Inst. of Comp. Anat.

* RAUNICH, L. - Prof.

* SALVATORELLI, G. - Prof.

Ist. di Zool.

COLOMBO, G. - Prof., Dir.

PINAMONTI, S. - Prof.

MICCIARELLI (SBRENNNA), Ms. A. - Asst.

FONTANA, F. - Asst.

SBRENNNA, G. - Asst.

Firenze, Univ.,

Ist. di Anat. Comp.

* CEAS, M. P.

Genova, Univ.,

Ist. di Anat. Comp.

* MINGANTI, A. - Prof.

* FALUGI, Ms. C. - Asst. Prof.

* RAINERI, Ms. M. - Res. worker

Catt. Idrobiol. Pescicolt.,

Fac. di Sci., Ist. di Zool.

* DELLA CROCE, N. - Prof.

* BETTANIN (BELGRANO), Ms. S. - Asst.

* GAINO, Ms. E. - Asst.

Messina, Univ., Fac. of Sci.,

Inst. of Zool. & Comp. Anat.

* BOLOGNARI, A. - Prof., Dir.

* ALBANESE (CARMIGNANI), Ms. M. P. - Prof.

* ZACCONE, G. - Prof.

DONATO (CELI), Ms. A. - Asst.

Italy

- CONTINI, Ms. A.
- Milano, Univ.
Fac. of Med., II. Inst. of Hum. Anat.
- * PANNESE, E. - Prof.
- Inst. of Dom. Anim. Anat.
- * PORCELLI, Ms. F. - Prof.
- Fac. of Sci., Inst. of Genet.
- * BARIGOZZI, C. - Prof., Dir.
- * HALFER, Ms. C. - Asst.
- * FACCIO (DOLFINI), Ms. S. - Asst.
- * MOSNA, Ms. G. - Res. fellow
- Modena, Univ., Fac. di Sci. Fis. Mat. e Nat.,
Inst. of Comp. Anat.
- * BAFFONI, G. M. - Prof.
- * MARINI, Ms. M. - Asst.
- * BERTOLANI, R. - Asst.
- * BENEDETTI, I. - Asst.
- * TREVISAN, P. - Asst.
- Napoli, Univ., II. Fac. of Med.,
Inst. di Anat. Umana Norm.
- BORGHESE, E. - Prof., Dir.
- Fac. di Sci., Ist. Istol. ed Embriol.
- GHIARA, G. - Prof.
- TADDEI, C.
- FILOSA (PARISI), Ms. S.
- CAMPANELLA, Ms. C. - Asst.
- Ist. e Museo di Zool.
- CHIEFFI, G. - Prof.
- Napoli, Staz. Zoologica
- * MONROY, A. - Prof., Dir.
- * TOSI, Ms. L. - Invest.
- * ROSATI (LAMPARIELLO), Ms. F. - Guest
Invest.
- * DE SANTIS, R. - Fellow
- Napoli (see also Arco Felice)
- Padova, Univ., Fac. of Sci.,
Ist. di Biol. Anim.
- * SABBADIN, A. - Prof.
- * SALA, M. - Prof.
- LEVIS, A. G. - Prof.
- * COLOMBERA, D. - Asst. Prof.
- * COLOMBO, L. - Asst.
- * DANIELI, G. A. - Asst.
- * BURIGHET, P. - Asst.
- Palermo, Univ., Fac. di Sci.,
Ist. di Anat. Comp.
- * GIUDICE, G. - Prof., Dir.
- * MUTOLI, V. - Prof.
- * SPINELLI, G. - Prof. Inc.
- * COGNETTI, G. - Prof.
- * VITTORELLI, Ms. M. L. - Asst. Prof.
- * RINALDI, Ms. A. M. - Asst. Prof.
- * PUCCI (MINAFRA), Ms. I. - Asst. Prof.
- * SCONZO, Ms. G. - Asst. Prof.
- * PIRRONE, Ms. A. M. - Asst. Prof.
- * RAMIREZ, F. - Asst. Prof.
- Ist. di Biol. Gen.
- * MANCUSO, V. - Prof., Dir.
- * GIANGUZZA, M.
- * DOLCEMASCOLO, G.
- Ist. di Istol. ed Embriol.
- D'AMELIO, V. - Prof.
- D'ANCONA (LUNETTA), Ms. G. - Asst. Prof.
- MINAFRA, S. - Asst. Prof.
- DI STEFANO, L. - Asst. Prof.
- MUSMECI, Ms. M. T. - Res. Assoc.
- Ist. di Zool.
- ORTOLANI, Ms. G. - Prof., Dir.
- REVERBERI, G. - Prof.
- * FARINELLA (FERRUZZA), Ms. N. - Prof.
- * PATRICOLO, Ms. E. - Prof.
- * MANSUETO (BONACCORSO), Ms. C. - Prof.
- * CUSIMANO (CAROLLO), Ms. T. - Prof.
- * DURANTE, Ms. M. C. - Prof.
- * D'ANNA, T. - Asst. Prof.
- * LA SPINA (D'ANNA), Ms. R. - Asst. Prof.
- MAJORCA (MONTELEONE), Ms. A. - Asst.
- * PUCCIA, E. - Asst.
- * VILLA, Ms. L. - Asst.
- * DE LEO, G. - Asst.
- Pavia, Univ.,
Fac. di Med., Dept. of Dermatol.
- * SERRI, F. - Prof., Chairman
- * CERIMELE, D. - Asst.
- * GIANNETTI, A. - Asst.
- Fac. Math., Phys. & Nat. Sci.,
Inst. of Histol., Embryol. & Anthropol.
- * MANFREDI (ROMANINI), Ms. M. G. - Prof.,
Dir.
- * FRASCHINI, Ms. A. - Prof.
- * BERNOCCI, Ms. G. - Prof.
- * REDI, C. A. - Prof.
- * SCHERINI, Ms. E. - Asst.
- Fac. of Sci., Inst. of Comp. Anat.
- * GERZELLI, G. - Prof.
- Perugia, Fac. di Sci., Ist. Anat. Comp.
- * BONDI, C. - Prof., Dir.
- * MARINELLI, Ms. M. - Asst.
- * VAGNETTI, Ms. D. - Asst.
- * FARNESE, Ms. R. M. - Asst.
- * TEI, Ms. S. - Asst.
- Ist. di Istol. ed Embriol. Gen.
- LOCCI, Ms. P. - Res.
- BODO, Ms. M. A. - Res.
- Pisa, Univ., Inst. of Genet.
- * CIONINI, P. G.
- Ist. di Histol. & Embryol.
- * MANCINO, G. - Prof.
- * BARSACCHI (PILONE), Ms. G.
- * NARDI, Ms. I
- * GIORGI, F.
- * RAGGHIANTI, Ms. M.
- * BUCCI-INNOCENTI, Ms. S.
- * BATISTONI, Ms. R.
- * DERI, P.
- * SOLA, Ms. L.
- Ist. di Zool. e Anat. Comp.
- NOBILI, R. - Prof., Dir.
- BENAZZI, M. - Prof.
- BENAZZI (LENTATI), Ms. G. - Prof.
- PUCCINELLI, Ms. I. - Asst.
- SCALI, V. - Asst.
- MAZZA, M. - Res. Assoc.
- LUPORINI, P. - Asst.
- DINI, F. - Asst.
- Ist. di Orticol. e Floricolt.
- * ALPI, A.
- Roma, Univ. di Roma,
Fac. di Med., Ist. di Biol. Gen.
- * GIOLITTI, G. - Prof., Dir.
- SPIRITO, A. - Prof.
- * SANTORO D'ANGELO, Ms. L. - Prof.
- * GULLINI CUOMO, Ms. M. - Asst.
- * PALLADINI, G. - Asst. Prof.
- Fac. di Sci., Ist. di Anat. Comp.
- * STEFANELLI, A. - o. Prof.
- * ZACCHEI, Ms. A. M. - Lect.
- FILONI, S. - Asst.
- * ALFEI (TORCIA), Ms. L.
- II. Chair of Histol. & Embryol.
- * RUSSO-CAIA, S. - Prof.

* MONESI, V. - Prof.
 Ist. di Zool. "F. Raffaele"
 MANELLI, H. - Prof., Dir.
 PASQUINI, P. - Prof.
 MASTROLIA, Ms. L. - Asst. Prof.
 MILANO-GRASSI, Ms. E. - Instr.
 SCOPPELLITI, R. - Asst.
 NICOTRA, Ms. A. - Asst.
 ACCORDI, Ms. F. - Asst.
 DE MATTHAEIS, Ms. E. - Asst.
 CORUJO ANTELO, Ms. A.
 SENATORI, Ms. O. - Res. worker
 GALLO, Ms. V. - Res. worker
 FERRINI, U. - Res. Assoc.

Sassari, Univ.,
 Fac. di Sci., Ist. di Zool.
 LEPORI, N. G. - Prof., Dir.
 PALA, Ms. M. - Asst.
 LISSIA (FRAU), Ms. A. M. - Asst.
 ARRU, Ms. A. - Asst.

Torino, Univ.,
 Fac. of Med., Dept. of Human Anat.
 * FILOGAMO, G. - Prof., Dir.
 CANTINO, D. - Asst.
 * GIACOBINI, G. - Asst.
 * ROBECCHI GIACOBINI, Ms. M. G. - Asst.
 * SISTO DANEO, Ms. L. - Asst.
 TORRE, C. - Asst.

Cell & Molec. Biol. Lab.
 * COMOGLIO, P. M. - Assoc. Prof.
 * BERTINI, Ms. M. - Asst. Prof.
 * PRAT, Ms. M. - Asst. Prof.
 * TARONE, G. - Postgrad. Res. Fellow

Inst. of Biochem.
 * RINAUDO, M. T. - Prof.
 Ist. di Istol. ed Embriol. Gen.
 MARCHISIO, P. C. - Lib. Doc.
 GREMO, Ms. F. - Asst. Prof.

Fac. of Sci., Inst. of Histol. & Embryol.
 * GUARDABASSI, Ms. A. - Prof., Dir.
 * CAMPANTICO, E. - Asst.
 * GUASTALLA, Ms. A. - Asst.

Fac. of Vet. Med., Ist. di Istol. ed Embriol. Gen.
 BARASA, A.

Trieste, Univ.
 Ist. di Zool. e Anat. Comp.
 GHIRARDELLI, E. - Prof., Dir.
 * GRAZIOSI, G. - Asst.

NETHERLANDS

Amsterdam, Royal Neth. Acad. of Arts & Sci.,
 Netherl. Inst. for Brain Res.
 * SWAAB, D. F. - Act. Dir., Head of Dept.
 * CORNER, M.A. - Head of Dept.
 * POLL, N. E. van de - Head of Dept.
 * UYLINGS, H. B. M. - Head of Dept.
 * BAKER, R. E.
 * ROMIJN, H. J.
 * BOER, G. J.
 * BOER, K.
 * DOGTEROM, J.
 * BAKHUIS, W. L.
 * BRUIN, J. P. C. de
 * HODDE, K. C.
 * LEEUWEN, F. W. van
 * OYEN, H. van
 * VELTMAN, W. A. M.

Amsterdam, Univ. of Amsterdam,
 Med. Fac., Anat.-Embryol. Inst.
 * LIMBORGH, J. van - Prof., Dir.
 * WOERDEMAN, M. W. - Prof. (Emer.)
 * LOS, J. A. - Sen. Lect.
 * DRUKKER, J. - Sen. Lect.
 * LAANE, H. M. - Asst.
 * LAMERS, W. H. - Asst.
 * ROEST (WAGENAAR), Ms. J. A. -Asst.
 * TONNEYCK (MÜLLER), Ms. I. - Asst.
 * CHARLES, R. - Res. Assoc.
 * DESTREE, O. H. J. - Res. Assoc.
 * HARREBOMÉE, Ms. A. E. - Res. Assoc.
 * MADJEREK, Z. S. - Res. Assoc.
 * WELSUM, R. A. van - Res. Assoc.
 Dept. of Obstet. & Gynecol.
 * NAAKTGEBOREN, C. - Sen. Sci. Off.
 * BONTEKOE, Ms. E. H. M.
 Amsterdam, Vrije Univ.,
 Med. Fac., Lab. of Anat.-Embryol.
 * NIE, C. J. van
 Bilthoven, Natl. Inst. Publ. Health,
 Dept. of Teratol. & Pharm. Pathol.
 * PETERS, P. W. J.
 Groningen, Univ., Med. Fac.,
 Dept. of Anat. & Embryol.
 * WILDE, A. G. de - Prof., Head
 * JONGH, H. J. de - Lect.
 * GLAS, P.
 * PLEEGING, J. H.
 Dept. Pediat., Lab. Devl. Biochem.
 KRAAN, G. P. B.
 Groningen, (see also Haren)
 Haren, Univ. of Groningen,
 Vakgroep Genetica
 * PIJNACKER, L. P. - Sen. Sci. Off.
 * TEMPELAAR, M. J. - Sci. Off.
 * FEIJERTAG (KOPPEN), Ms. C. C. M.
 Dept. of Devl. Plant Biol.
 * WESSELS, J. G. H. - Prof.
 * SIETSMA, J. H. - Res. Assoc.
 * VRIES, O. M. H. de - Res. Assoc.
 * RAEVEN, M. B. J. M. - Res. Assoc.
 * ZANTINGE, A. - Res. Assoc.
 Leiden, State Univ.,
 Lab. Cell. Biol. & Histol.
 * GAILLARD, P. J. - Prof., Dir.
 * ZAAYER, Ms. J. J. P. - Lect.
 * THESINGH, Ms. C. W. - Sen. Sci. Off.
 * BURGER, Ms. E. H. - Sci. Worker
 * SCHERFT, J. P. - Reader
 * OKKER-REITSMA, Ms. G. H. - Sci. Worker
 * NIJWEIDE, P. J. - Sci. Worker
 * BRINKMANN, A. O. - Sci. Worker
 * VALKEMA-PORRENGA, Ms. F. C. - Sci.
 Worker
 * VEGT, G. B. - Sci. Worker
 Lab. of Med. Chem.
 * ROOY, R. E. de
 Dept. of Obstet. & Gynecol.
 * GEBHARDT, D. O. E. - Biochem.
 Fac. of Sci., Bot. Lab.
 SIEBERS, A. M.
 Subfac. Biol., Genet. Lab.
 * BREUGEL, F. M. A. van - Sci. Worker
 * ZONNEVELD, B. J. M. - Sci. Worker
 * VREEZEN, Ms. W. J. - Sci. Worker
 Zool. Lab., Unit Cell Biol. - Morphogen.
 * KONIJN, T. M. - Prof., Head
 * MOLEN, Ms. L. G. van der - Sci. Worker.
 * SPREY, T. E. - Sci Worker
 * VIJVERBERG, A. J. - Sci. Worker.

- * PRIESTER, W. de - Sci. Worker
- * KAKEBEEKE, P. J. J. - Res. Assoc.
- * FGBERTS, D. J. N. - Res. Assoc.
- * MATO, J. M. - Res. Assoc.
- PELT-VERKUIL, Ms. E. van - Res. Assoc.
- Nieuwersluis, Royal Neth. Acad. of Arts & Sci., Limnol. Inst.
SOEKARJO, R. - Dir.
STEENBERGEN, C. L. M. - Sci. Off.
- Nijmegen, Cathol. Univ., Fac. of Med., Lab. of Anat. - Embryol.
LAMMERS, H. J. - Prof., Dir.
- * GRIBNAU, Ms. A. A. M. - Res. Assoc.
- * KORT, E. J. M. de - Res. Assoc.
- * DONKELAAR, H. J. ten - Res. Assoc.
- * POUWELS, Ms. E. - Res. Assoc.
- * THORS, F. - Res. Assoc.
- * VERHOFSTAD, A. A. J. - Res. Assoc.
- Fac. of Sci., Dept. of Bot.
* LINSKENS, H. F. - Prof.
- * CROES, A. F. - Sci. Off.
- * SCHRAUWEN, J. A. M. - Sci. Off.
- * COCK, A. W. A. M. de - Sci. Asst.
- Dept. of Genet.
* LEENDERS, H. J. - Res. Assoc.
- * LUBSEN, Ms. N. H. - Res. Assoc.
- * DERKSEN, J. - Res. Asst.
- * EEKEN, J. C. J. - Res. Asst.
- * VOSSEN, J. G. H. M. - Res. Asst.
- Dept. of Zool.
* DENUCÉ, J. M. - Prof., Dir.
- * HERP, F. van - Res. Assoc.
- * MEER, J. M. van der - Res. Asst.
- * HAARLEM, R. van - Res. Asst.
- * STROLENBERG, G. E. C. M. - Res. Asst.
- Rotterdam, Erasmus Univ., Med. Fac., Dept. Anat. - Embryol.
KREDIET, P. - Lect.
KLEIN, H. W. - 1st Sci. Worker
SANAL, S. - 1st Sci. Worker
- Dept. of Endoer., Growth & Reprod.
* ZEILMAKER, G. H.
- Dept. of Exper. Pathol.
* BOTH, N. J. de
- Utrecht, Royal Netherl. Acad. of Arts & Sci., Hubrecht Lab., (Intern. Embryol. Inst.)
* NIEUWKOOP, P. D. - Prof., Dir.
FABER, J. - Deputy Dir.
- * BOTERENBROOD, Ms. E. C. - (exp. morphol.)
- * HARA, K. - (exp. morphol.)
- * LAWSON, Ms. K. A. - (tissue cult.)
- * BLUEMINK, J. G. - (ultrastr. res.)
- * UBBELS, Ms. G. A. - (histochem.)
- * LAAT, S. W. de - (biophys.)
- * SAAG, P. T. van der - (biochem.)
- * DURSTON, A. J. - (devl. physiol.)
- * MICHAEL, Ms. P. - Sci. Asst.
- * MOOLENAAR, W. H. - Guest Worker.
- * NELEMANS, S. A. - Res Assoc.
CLEINE, J. H. - Res. Assoc.
- Utrecht, State Univ., Fac. of Med., Dept. of Med. Anat. & Embryol.
* DOORENMAALEN, W. J. van - Prof., Dir.
- * BRAHMA, S. K. - Sen. Sci. Off.
- * GROENENDIJK (HUIJBERS), Ms. M. M.
- * STARRE, H. van der - Sci. Worker
- * JANSSEN, P. T. - Sci. Worker
- Dental School, Orthodont. Dept.
* MARKENS, I. S.
- * OUDHOF, H. A. J.

- Fac. of Sci., Bot. Lab.
GENDEREN, H. H. van Genet. Inst., Popul. & Evol. Biol.
SCHARLOO, W. - Prof.
JONG, Ms. G. de - Lect.
SCHOUTEN, S. C. M.
THÖRIG, G. E. W.
HOORN, A. J. W.
Dept. of Molec. Cell Biol.
* WIJK, R. van Theoret. Biol. Group
* LINDEMAYER, A. - Prof.
Zool. Lab.
* VERDONK, N. H. - Prof., Dir.
* RAVEN, Chr. P. - Prof. (Emer.)
* GEILENKIRCHEN, W. L. M. - Lect.
* LABORDUS, V.
* BIGGELAAR, J. A. M. v.d.
* BOON (NIERMAYER), Ms. E. K.
* WAL, U. P. v.d.
* DONGEN, C. A. M. van
* ARNOLDS, W. J. A.
* BEZEM, J. J.
* DOHMHEN, M. R.
Fac. of Vet. Sci., Anat. - Embryol. Inst.
* WENSING, C. J. G. - Reader
* COLENBRANDER, B. - Sci. Off.
* FRANKENHUIS, M. T. - Sci. Off.
* STRAATEN, H. W. M. van - Sci. Off.
Clin. of Vet. Obstet. & Gynecol.
* BRAND, A.
* TAVERNE, M. A. M.
Wageningen, Agric. Univ., Dept. of Bot.
* WILLEMSE, M. T. M. - Prof.
Dept. of Exp. Anim. Morphol. & Cell Biol.
* MUISWINKEL, W. B. van
* TIMMERMAN, Ms. L. P. M.
* ROMBOUT, J. H. W. M.
Dept. of Horticult.
* WELLENSIEK, S. J. - Prof.
* BRAGT, J. van - Sen. Lect.
* PIERIK, R. L. M. - Sen. Lect.
Dept. of Plant Physiol.
* BRUINSMA, J. - Prof., Head
BERGHOEF, J.
KARSSEN, C. M. - Sen. Res. Off.
KNEGT, E. - Sen. Res. Off.
LOON, L. C. van - Res. Assoc.
VARGA, A. - Sen. Res. Off.

NORWAY

- Bergen, Univ., Anat. Inst.
* FLOOD, P. R. - Assoc. Prof.
- * KVINNSLAND, S. - Assoc. Prof.
- * ABRO, A. - Asst. Prof.
- Oslo, Univ., Fac. of Med., Anat. Inst.
* JANSEN, J. - Prof. (Emer.)
* KORNELIUSSEN, H. - Asst. Prof.
- Dent. Fac., Dept. of Anat.
RISNES, S.
- Tromsø, Univ., Inst. of Biol. & Geol.
LÖNNING (VADER), Ms. S. - Lect.

POLAND

Kraków, Jagellonian Univ.,

Dept. of Comp. Anat.

* SZARSKI, H. - Prof., Head

* GRODZINSKI, Z. - Prof. (Emer.)

* KILARSKI, W. - Lect.

* BYCZKOWSKA (SMYK), Ms. W.

* KORDYLEWSKI, L.

* KOZŁOWSKA, Ms. M.

* KUJAT, R.

* PERZANOWSKA, Ms. A.

Inst. of Bot., Dept. of Plant Cytol. & Embryol.

* TURĄŁA-SZYBOWSKA, K.

* IZMIAŁOW, Ms. R.

CZAPIK, Ms. R. - Docent

MAŁĘCKA, Ms. J.

Inst. of Molec. Biol., Lab. of Plant Physiol.

* RYCZKOWSKI, M. - Lect.

Inst. of Zool., Dept. of Genet. & Evol.

* KRZANOWSKA, Ms. H. - Head

* KAŁETA, Ms. E. W. - Asst.

* WABIK-SŁIZ, Ms. B. - Asst

Zool. Dept.

* JURA, C. - Head

* KRYSZTOFOWICZ, Ms. A. - Assoc. Prof.

* TYSKIEWICZ, Ms. K. - Asst.

* KLAG, J. - Asst.

* ROMANOWSKA, Ms. E. - Asst.

* BILIŃSKI, S. - Asst.

* JONCZY, J. - Asst.

* GODULA, J. - Asst.

Kraków, Med. Academy,

Dept. of Biol. & Embryol.

* SREBRO, Z. - Prof., Dir.

* RZEHAK, K. - Res. Asst.

* ŚLIWA, L. - Res. Asst.

Kraków, Polish Acad. of Sci.,

Inst. of Pharmacol., Dept. of Neuropathol.

* KALUZA, J. S. - Asst. Prof.

Poznań, Med. Academy,

Inst. of Neurol. & Sens. Org.

* WENDER, M. B. - Prof., Head

* KOZIK, M. - Head Lab. Pathol.

* MULAREK, Ms. O. - Head Lab. Exp. Neurol.

Toruń, Univ. N. Copernicus,

Inst. of Biol., Dept. of Zool.

* MIKULSKA, Ms. I. - ord. Prof.

* GRYGON-GOSTKIEWICZ, Ms. B. - Asst.

* JACUNSKI, L. - Asst.

* WEYCHERT, K. - Asst.

Warszawa, Agric. Univ.,

Dept. of Histol. & Embryol.

* BIELANSKA-OSUCHOWSKA, Ms. Z. - Prof.

* LIWSKA, Ms. J. - Asst.

Bee Division

* WOYKE, J. - Prof.

Warszawa, Hematol. Inst.,

Dept. of Physiopathol.

* KOPEĆ, Ms. J.

Warszawa, Med. Academy,

Inst. of Obstet. & Gynecol.

* MYSTKOWSKA-BACZKOWSKA, Ms. E. T.

* CHOROSZEWSKA-LELICIŃSKA, Ms. A. - Sen. Asst.

* KOMAR, Ms. A. - Sen. Asst.

* NIEMIERKO, Ms. A. - Sen. Asst.

BENTYN, K. - Sen. Asst.

* MAŃKOWSKA, Ms. E. - Asst.

Dept. of Pathomorphol.

SZAMBORSKI, J. J. - Chief

CZYZEWSKA (LIEBHART), Ms. M. - Asst.

* REMBISZEWSKA, Ms. A. - Asst.

* ROSCZYZNNSKA, Ms. G. - Asst.

Warszawa, Polish Acad. of Sci.,

M. Nencki Inst. of Exp. Biol.,

Dept. of Cell Biol.

* GOLINSKA, Ms. K.

* KINK, Ms. J.

* JERKA-DZIADOSZ, Ms. M.

Dept. of Bioenerget. & Bioprod.

STYCZYNSKA (JUREWICZ), Ms. E.

Inst. of Ecol.

* KAMLER, Ms. E.

Warszawa, Warsaw Univ.,

Zool. Inst., Dept. of Cytol.

* MATUSZEWSKI, B. - Docent

* SOLTYNSKA, Ms. M. - Sen. Asst.

* KLOC-STĘPKOWSKA, Ms. M. - Sen. Asst.

Zool. Inst., Dept. of Embryol.

* TARKOWSKI, A. K. - Prof.

* ROGULSKA, Ms. T. - Sen. Asst.

* OŻDŻEŃSKI, W. - Sen. Asst.

* CZOŁOWSKA, Ms. R. K. - Sen. Asst.

* WITKOWSKA, Ms. A. - Sen. Asst.

* MODLIŃSKI, J. A. - Sen. Asst.

* OPAS, Ms. J. - Asst.

* BAŁAKIER, Ms. H. - Asst.

Zool. Inst., Lab. of Protozool.

KACZANOWSKI, A. - Sen. Asst.

KACZANOWSKA (DOBRAŃSKA), Ms. J. - Sen. Asst.

RADZIKOWSKI, S. - Sen. Asst.

Wrocław, Coll. of Agric., Chair of Zool.

HUMIŃSKI, S. - Docent

Wrocław, Univ., Zool. Inst.,

Dept. of Gen. Zool.

* SEMBRAT, K. - Prof. (Emer.)

* KOŚCIELSKI, B. - Dir.

* NOWAKÓWNA-SEMBRAT, Ms. J. - Adj.

* KIEŁBÓWNA, Ms. L. - Adj.

* TERPIĘWSKA, Ms. B.

* OGORZAŁEK, A.

* KASSNER, J.

Dept. of Syst. Zool.

* KOŚCIELSKA, Ms. M. K. - Adj.

Zabrze, Silesian Acad. of Med.,

Inst. of Biol. & Morphol.,

Dept. of Gen. Biol.

* WRÓBLEWSKI, R. - Prof., Head

ACHTELIK, W. - Adj.

GRZYBEK, Ms. A. - Adj.

* CZAPSKA (DZIEKĀNOWSKA), Ms. D. - Adj.

* KUCIAS, J. - Adj.

* JARZAB, Ms. B.

PORTUGAL

Lisboa, Univ., Fac. de Med.,

Inst. Histol. e Embriol.

* XAVIER MORATO, M. J. - Prof., Dir.

* RODRIGUES CORREIRA, Ms. M. J. - Asst.

Fac. de Ciênc., Museu e Lab. Zool. e Antropol.

SACARRÃO, G. da FONSECA- Prof.

Porto, Univ. of Porto,

Fac. of Med., Inst. of Anat.

* ABRUNHOSA, R. - Asst. Prof.

Rumania

RUMANIA

- Cluj, Biol. Res. Ctr.,
 * PREDA, V. G. - Prof.
 * CRĂCIUN, Ms. O. - Chef.de Trav.
 * PROTASE (POPPER), Ms. A. - Asst.
 * RUSU, Ms. V. M. - Res. worker
 Timișoara, Ctr. of Hyg. & Publ. Health,
 Lab. of Embryol.
 * MENKES, B. - Prof.
 * SANDOR, S. - Head Lab.
 * ALEXANDRU, Ms. C. - Sci. Worker
 * AMELS, Ms. D. - Sci. Worker
 * CHECIU, I. - Sci. Worker
 * PRELIPCEANU, Ms. O. - Sci. Worker
 * FAZEKAS (TODEA), Ms. I.
 * CHECIU, Ms. M. - Sci. Worker
 * DELEANU, M. - Sci. Collab.
 * CAPĂLNASAN, I. - Sci. Collab.
 Timișoara, Med. School,
 Dept. of Med. Biol.
 * MENKES, B. - Prof.
 * TUĐOSE, Ms. O. - Lect.
 * MIRCOV, Ms. O. - Asst.
 * TOSICI, Ms. A. - Asst.

SCOTLAND (see UNITED KINGDOM)

SPAIN

- Badajoz, Univ. of Extremadura,
 Fac. of Med., Dept. of Anat. & Morphogen.
 * PUELLES-LÓPEZ, L.
 Barcelona, Univ. de Barcelona
 Fac. de Biol., Dept. de Genet.
 * BAGUÑA, J.
 * VELA FERNÁNDEZ, J. A.
 Fac. de Med., Dept. de Anat.
 * RUANO GIL, D. - Prof., Head
 * TEJEDO MATEU, A. - Prof.
 * VILANOVA TRIAS, J. - Prof. Agr.
 * BARASTEGUI ALMAGRO, C. - Prof. Adj.
 * COBOS CARBO, P. - Prof. Adj.
 * NARDI VILARDAGA, J. - Prof. Adj.
 * SUSO VERGARA, S. - Prof. Adj.
 Granada, Univ. of Granada,
 Fac. of Med., Inst. F. Olóriz
 * GUIRAO-PEREZ, M. - Prof., Dir.
 * GARCIA-GARCIA, J. D. - Prof.
 * ALVAREZ, L. - Aggr. Prof.
 * RODA, A. - Aggr. Prof.
 * PASCUAL-MORENILLA, Ms. M. T. - Assoc.
 Prof.
 * ARANEGA, Ms. A. - Asst. Prof.
 Madrid, Univ. Autónoma,
 Fac. de Cinc., Centro de Biol. Molec.,
 Inst. de Genet.,
 * GARCIA-BELLIDO, A. - Res. Member
 * MORATA, G. - Res. Member
 * RIPOLL, P. - Res. Member
 * FERRUS, A. - Res. Member
 * CAPDEVILLA, Ms. M. P. - Res. Member
 Santander, Fac. de Med., Dept. de Anat.
 Serv. de Embriol. Exp.
 * OJEDA SAHAGUN, J. L. - Prof.
 * HURLE GONZALEZ, J. M. - Asst. Prof.
 * GARCIA-PORRERO, J. A. - Asst. Prof.

- Sevilla, Univ., Fac. de Med.,
 Cat. de Anat., Lab. Embriol. Exp.
 GÉNIS-GÁLVEZ, J. M. - Prof.
 CAÑADAS-VILLALTA, J. A. - Asst. Prof.
 Vitoria, Alava Univ., Coll. of Med.,
 Cat. de Anat., Serv. Embriol. Exp.
 * BARBOSA AYUCAR, E. - Prof. Agr.
 * GARCIA VALDECASAS HUELIN, J. M.
 * CAMPELO BARCIA, Ms. E.
 INIGUEZ LOBETO, C.

SWEDEN

- Göteborg, Univ.,
 Lab. of Oral Biol., Dept. of Histol.
 * LJNDE, L. A. - Docent
 Zoo. Inst.
 ENEMAR, E. A. W. - Prof.
 BERGQUIST, H.
 ARONSSON, S. B.
 EURENIUS (PERSON), Ms. L.
 JÅRSKÄR, R. J.
 Lund, Tornblad Inst. f. Comp. Embryol.
 KÄLLÉN, A. J. B. - Prof., Dir.
 BJERRE, B. - Docent
 Lund, Univ.,
 Zoophysiol. Inst.
 EMANUELSSON, H. - Asst. Prof., Head
 KARLSSON, B. - Asst. Prof.
 BRUCE, L.
 PALÉN, K.
 LINDQUIST, A.
 Lund (see also Malmö)
 Malmö, Univ. of Lund,
 Dept. of Obstet. -Gynecol.
 * GENNSER, G. - Assoc. Prof.
 Söderläje, Astra Läkemedel AB
 * TONEBY, M.I.
 Stockholm, AB KABI,
 Dept. of Pharmacol. & Toxicol.
 HAGSTRÖM, B. E. - Docent
 Stockholm, Karolinska Inst.,
 Lab. of Teratol.
 LARSSON, K. S. - Assoc. Prof.
 HÖRNBLAD, P. Y. - Asst. Prof.
 ERIKSSON, Ms. M. - Asst. Prof.
 MARSK, L. Res. Assoc.
 Stockholm, Univ., Dept. of Zool.
 * HAGELIN, L. O. - Lect.
 Wenner-Gren Inst. for Exp. Biol.
 * HULTIN, J. M. T. - Prof., Dir.
 * GUSTAFSON, T. - Assoc. Prof.
 * AFZELIUS, B. A. - Assoc. Prof.
 * BACKSTRÖM, S. A. A. - Asst. Prof.
 * ELIASSON (KLEIN), Ms. E. - Asst.
 * IMMERS, J. - Res. Assoc.
 * RAFTELL, Ms. M.
 * RYBERG, Ms. E.
 * WESTIN, Ms. M.
 Stockholm,
 * KINDAHL, Ms. M. E. - Lect.
 Umeå, Univ., Dept. of Biol.
 * BERTMAR, G. - Sen. Lect.
 Dept. of Zoophysiol.
 * LÖVTRUP, S. - Prof.
 * LÖVTRUP (REIN), Ms. H. - Docent
 * LANDSTROM, U. - Asst.
 * NELSON, L. - Asst.
 Uppsala, Uppsala Univ., Zool. Inst.
 * JACOBSON, D. C. O. - Prof., Head

- * CANTELL, C. E.
- * CHRONWALL, B.
- * EBENDAL, T. - Asst. Prof.
- * EHN, J. A. - Asst. Prof.
- * FRANZÉN, A. S. - Asst. Prof.
- * GEZELIUS, N. G. B. - Asst. Prof.
- * HEDLUND, K. O. - Asst.
- * HENDELBERG, J. - Asst. Prof.
- * HOLM, K. A. - Prof. (Emer.)
- * HÖRSTADIUS, S. - Prof. (Emer.)
- * JÄGERSTEN, K. G. M. - Prof. (Emer.)
- * KARLSSON, L.
- * LÖFBERG, J. E. - Asst. Prof.
- * NORRGREN, G.
- * OZOH, P.
- * RUNN, P.
- * STRÖM, R.
- * WIDE, M.

SWITZERLAND

Basel, Univ., Anat. Inst.

* LUDWIG, K. S. - Prof.

* BAUR, R.

* KRESS, Ms. A.

* SPORNITZ, U. M.

* MÜLLER, Ms. F.

Biozentrum, Dept. of Cell Biol.

* GEHRING, W. J. - Prof.

* GERISCH, G.

* WEIDELI, H. J.

* BERNHARD, H. P. - Asst. Prof.

* MALCHOW, D. W. H.

* ARTAVANIS-TSAKONAS, S.

* SCHEDL, P.

* WURSTER, B.

Zool. Inst.

NUESCH, H. - Prof.

* STOCKER, R. F.

Bern, Naturhist. Museum

* HUBER, W. - Prof., Dir.

Bern, Univ.,

Fac. of Med., Dept. of Anat.

RÉVÉSZ (FERENCZY), Ms. E.

Zool. Inst., Div. Cell & Devl. Biol.

* WEBER, R. - Prof.

* HAUSER, R. F. - Prof.

* RYFFEL, G. U. - Asst.

* ABRAHAM, Ms. I. - Asst.

* FELBER, Ms. B. - Res. Asst.

Zool. Inst., Abt. Morphol. u. Biol. Wirbelt.

* HUBER, W. - Prof.

Bern, (see also Ostermundigen)

Chêne-Bougeries, Univ. of Geneva,

Dept. Anim. Biol., Lab. Molec. Embryol.

* CRIPPA, M. - Prof.

Stat. de Zool. Expér.

FISCHBERG, M. - Prof. ord.

DROIN, Ms. A. - Charg. Rech.

Epalinges, Inst. Suisse de Rech. Exp. sur le Cancer,

Unit. de Biol. du Dével.

* YAMADA, T. - Prof.

* MODAK, S. P.

* APPLEBY, D. W. - Postdoct. Res. Assoc.

* McMASTER, G.

Fribourg, Univ., Inst. Biol. Anim.,

Dépt. d'Embryol.-Térolat. Exp.

* SCHOWING, J. - Prof.

* BAEHNY, A. - Asst.

- * VAN TOLEDO, B. - Asst.
- Inst. d'Histol. - Embryol. Gén.
- CONTI, G. - Prof., Dir.
- * MUSY, J. P. - Asst. Prof.
- * GOTZOS, V. - Chef de Trav.
- * GOTZOS (CAPPPELLI), Ms. B. - Priv. Docent
- Inst. de Zool.
- * ZÜST, Ms. B.
- Genève, Univ.,
- Fac. de Med., Inst. d'Anat.
- BAUMANN, J. A. - Prof., Dir.
- Clin. Gynecol. - Obstét.,
- Lab. of Embryol. & Cytogenet.
- FERRIER, Ms. A. - Res. Assoc.
- NIIKAWA, N. - Res. Assoc.
- Inst. d'Histol., Lab. d'Embryol. Exp.
- GALLERA, J. - Dir., Reader
- NICOLET, G. - Asst.
- Genève (see also Chêne-Bougeries)
- Kehrsatz

- * STRAUSS, F. - Prof.
- Lausanne, Univ. de Lausanne,
- Inst. d'Histol. et d'Embryol.
- * PEXIEDER, T. - Assoc. Prof.
- Ostermundigen, Univ. of Bern,
- Brain Anat. Inst.
- * PILLERI, G. - Prof., Dir.
- * KRAUS, Ms. C. - Asst.
- * GIJRH, Ms. M. - Asst.
- Zürich, Swiss Fed. Inst. of Technol.
- URSPRUNG, H. - Prof.
- Inst. of Cell Biol.
- * EPPENBERGER, H. M. - Prof.
- * LEZZI, M. - Oberasst.
- * TURNER, D. C. - Oberasst.
- * PERRIARD, J. C. - Oberasst.
- * WYSS, C. - Asst.
- * FREY, M. - Asst.
- * MAEHR, R. - Asst.
- * CHIQUET, M. - Asst.
- * BOGENMANN, E. - Asst.
- * PURI, E. C. - Asst.
- * LANG, A. - Asst.
- * INEICHEN, H. - Asst.
- * CARAVATTI, M. - Asst.
- * HEIZMANN, C. - Res. Assoc.
- * WUHRMANN, P. - Res. Assoc.
- * PELLONI-MÜELLER, Ms. G. - Res. Assoc.
- Dept. of Zool.
- * CAMENZIND, R. - Oberasst.
- * WENT, D. F. - Oberasst.
- Zürich, Univ., Med. Fac.,
- Dept. of Anat., Histol. & Embryol.
- * TÖNDURY, G. - Prof., Dir.
- * THEILER, K. - Prof.
- * RICKENBACHER, J. - Prof.
- * KISTLER, G. S. - Head Div. Electr. Micr.
- Dept. of Anat., Div. of Cell Biol.
- * GROSCURTH, P.
- Inst. of Plant Biol., Cytol. Lab.
- * HOHL, H. R. - Prof.
- Inst. f. Molek. biol. II
- * BIRNSTIEL, M. L. - Prof.
- Zool. - Vergl. Anat. Inst.
- TARDENT, P. - Prof., Dir.
- * CHEN, P. S. - Prof.
- * NÖTHIGER, R. - Prof.
- * KUBLI, E.
- * DÜBENDORFER, A.
- * SCHMID, V. S.
- * GLINZ, Ms. S. - Asst.
- * STEINER, E. - Asst.

- * SCHÜPBACH, Ms. T. - Asst.
- BRUNNERT, A. - Asst.
- ACHERMANN, I. - Asst.
- BOELSTERLI, U. - Asst.
- Dental Inst.
- Dept. of Oral Struct. Biol.
- * SCHROEDER, H. E. - Prof.
- * MURBACH, Ms. V. E.

TURKEY (see under ASIA in part 2)

UNITED KINGDOM (U.K.)

ENGLAND

- Ascot**, London Univ., Imp. Coll., Dept. of Zool. & Appl. Entomol.
- * LEES, A. D. - Prof.
- * HARDIE, J. - Res. Fellow
- * SINDEN, R. E.
- Beckenham**, Wellcome Res. Labs., Dpt. of Pathol.
- * JAMES, D. A. - Sen. Res. Sci.
- Birmingham**, Univ. Med. School, Dept. of Anat.
- * ECKSTEIN, P. - Prof. (Endocr.)
- EAYRS, J. T. - Prof. (Emer.)
- * FRANCHI, L. L. - Sen. Lect.
- * SWANSON (EARTLY), Ms. H. H. - Sen. Lect.
- * BERRY, M. - Lect.
- * BUTLER, S. R. - Lect.
- * MARSTON, J. H. - Lect.
- * SALMONS, S. - Lect.
- * JONES (HOLT), Ms. E. C. - Res. Fellow
- * HURST, P. R. - Res. Fellow.
- Dept. of Biochem.
- * WALKER, D. G. - Prof.
- Dept. of Genet.
- * WALLACE, H. - Lect.
- * WATSON, A. - Res. Stud.
- Dept. of Zool. & Comp. Physiol.
- COHEN, J. - Sen. Lect. (Embryol.)
- Birmingham**, Queen Elisabeth Hosp., Dept. of Surg.
- WATTS, G. T. - Consult. Surg.
- Brighton**, Univ. of Sussex,
- Sch. of Biol. Sci.,
 - SANG, J. H. - Prof. (Genet.)
 - GOODWIN, B. C. - Reader (Dev. Biol.)
 - COLE, R. J. - Reader (Dev. Genet.)
 - WEBSTER, G. C. - Lect. (Dev. Biol.)
 - FRENCH, V. K. - Grad. stud.
 - MADEN, M.
- Bristol**, Univ.,
- Med. Sch., Dept. of Anat.
- KELLY, W. A. - Sen. Lect.
- BERKOVITZ, B. K. B. - Lect.
- KNOWLAND, J. S. - Lect.
- Dept. of Pathol.
- * BILLINGTON, W. D.
- * JENKINSON, E. J. - Res. Assoc.
- * SEARLE, R. F. - Res. Assoc.
- * SMITH, Ms. G. - Res. Asst.
- * SELLENS, M. H. - Res. Asst.
- * DILLON, Ms. K. J. - Grad. Stud.
- Dept. of Zool.
- * ROBERTS, A. M.

- Sch. of Vet. Sci., Dept. Anim. Husb.
- BISHOP, M. W. H. - Reader
- Cambridge**, Med. Res. Council, Lab. of Molec. Biol.
- * BRENNER, S.
- * GURDON, J. B.
- * LAWRENCE, P. A.
- * SULSTON, J. E.
- * WILCOX, M.
- * MITCHISON, G. J.
- Cambridge**, Strangeways Res. Lab.
- * ABERCROMBIE, M. - Dir.
- * DUNN, G. A.
- * HEATH, J. P.
- Cambridge**, Univ., Addenbrooke's Hosp., Dept. of Surg.
- * STEELE, C. E.
- Anat. School.
- * HARRISON, R. J. - Prof., Dir.
- * MESSAGE, M. A. - Lect.
- * PRATT, C. W. McE. - Lect.
- * WOOLLAM, D. H. M. - Lect.
- * STEVEN, D. H. - Lect.
- * NAVARATNAM, V. - Lect.
- * JOHNSON, M. H. - Lect.
- * KAUFMAN, M. H. - Demonstr.
- A. R. C. Inst. of Anim. Physiol.
- * AMOROSO, E. C. - Prof.
- * STANIER, Ms. M. W. - Princ. Sci. Off.
- * SYMONS, D. B. A. - Sen. Sci. Off.
- * BINNS, R. M. - Princ. Vet. Res. Off.
- A. R. C. Unit of Devl. Bot.
- BARLOW, P. W. - Sen. Sci. Off.
- A. R. C. Unit Reprod. Physiol. & Biochem.
- MANN, T. R. R. - Prof., Dir.
- ROWSON, L. E. A. - Deputy Dir.
- ADAMS, C. E. - Princ. Sci. Off.
- POLGE, C. - Sen. Princ. Sci. Off.
- BOURSNELL, J. C. - Sen. Princ. Sci. Off.
- HAY, Ms. M. F. - Princ. Sci. Off.
- MOOR, R. M. - Princ. Sci. Off.
- DOTT, H. M. - Princ. Sci. Off.
- Dept. of Genet.
- * ASHBURNER, M. - Lect.
- RICHARDS, G. P. - Asst. Lect.
- Dept. of Pathol.
- FELL, Dame Honor B.
- Psychol. Lab.
- * VINCE, Ms. M. A.
- Dept. of Physiol., Marshall Lab.
- * AUSTIN, C. R. - Prof.
- * NEW, D. A. T. - Lect.
- * EDWARDS, R. G. - Reader
- * WEBB, F. T. G. - Postd. Res. Fellow
- * BUCKLEY, Ms. S. K. L. - Postd. Res. Fellow
- * COCKROFT, D. L. - Postd. Res. Fellow
- * SURANI, M. A. H. - Postd. Res. Fellow
- Dept. of Zool.
- WIGGLESWORTH, Sir V. B. - Prof. (Emer.)
- Colechester, Univ. of Essex,
- Dept. of Biol.
- * ASHWORTH, J. M. - Prof.
- * HAMES, B. D. - Lect.
- * BOWNES, M. - Lect.
- * RICKWOOD, D. - Lect.
- Coventry**, Lankester Polytechnic, Dept. of Biol. Studies
- * STURDEE, A. P.
- Durham**, Univ., Zool. Dept.
- * ASHBY, K. R. - Lect.
- * HORTON, J. D. - Lect.

Exeter, Univ.,
Dept. of Biol. Sci.
* DEUCHAR, Ms. E. M. - Hon. Res. Fellow
* PHILLIPS, I. D. J. - Lect.
* STEBBINGS, H. - Lect.
* WILLETTS, A. - Lect.
Harrow, Clin. Res. Ctr.
* LANSDOWN, A. B. G. - (Exp. Pathol.)
* FRASER, Ms. L. REPSIS
Dept. of Embryol. & Foetal Devl.
* BARNES, R. D.
TUFFREY M.
MAUDLIN, I.
Harwell, M. R. C. Radiobiol. Unit
* LYON, Ms. M. F.
Hull, Univ., Zool. Dept.
* MANNING, Ms. M. J. - Sen. Lect.
Leeds, Univ.,
Sch. of Med., Dept. of Anat.
* JOHNSON, D. R. - Lect.
Leicester, Univ.,
Anat. Dept.
* BECK, F. - Prof.
* ENGLAND, Ms. M. A. - Sen. Lect.
* GULAMHUSEIN, A. P. - Lect.
* WAKELY (DENT), Ms. J. - Lect.
Sch. of Biol. Sci., Bot. Labs.
* STREET, H. E. - Prof.
* WITHERS, L. - A. R. C. Res. Fellow
* CHANDRA, N. - Visit. Res. Fellow
* REUVENI, O. - Visit. Res. Fellow
Littlehampton,
Glasshouse Crops Res. Inst.
* HAMMOND, J. B. W.
Microbiol. Dept.
* WOOD, D. A. W.
Liverpool, Univ.,
Anat. Dept.
* HARRISON, R. G. - Prof.
Dept. of Zool.
* DUNCAN, C. J. - Prof.
* STANISSTREET, M. - Lect.
* SMITH, J. L. - Res. Stud.
* WALL, R. - Res. Stud.
Liverpool (see also ISLE OF MAN, Port Erin)
London, Brit. Museum (Nat. Hist.)
Dept. of Zool.
* FINCHAM, A. A. - Sen. Sci. Off.
* INGLE, R. W. - Sen. Sci. Off.
* NGOC-HO, Ms. N. - Visit. Res. worker
London, Charing Cross Hosp.,
Med. Sch., Anat. Dept.
* GLENISTER, T. W. - Prof., Dir.
* ROSS, J. R. W. - Sen. Lect.
* SWAIN, A. H. - Lect.
* VASSALL-ADAMS, P. R. - Lect.
London, City of London Polytechn.,
Dept. of Biol.
LOWERY, R. S. - Lect.
MALEYVAR, R. P. - Res. Stud.
London, Guy's Hosp. Med. School,
Dept. of Anat.
* JOSEPH, J. - Prof.
* DYSON (DEPLEDGE), Ms. M. - Sen. Lect.
Biol. Dept.
* BAXTER, E. W. - Head
Paediat. Res. Unit
* POLANI, P. E. - Prof.
* ADINOLFI, M. - Reader
* BENSON, P. F. - Reader
* GIANNELLI, F. B. - Reader
* SELLER, Ms. M. J. - Sen. Lect.

* FENSOM, A. H. - Res. Assoc.
London, Imp. Canc. Res. Fund. Labs.
WEISS, R. A.
Mill Hill Lab.
* ISH-HOROWICZ, D.
London, Imp. Coll. of Sci. & Technol.,
Dept. of Zool. & Appl. Entomol.
* SMYTH, J. D. - Prof.
London, Middlesex Hosp. Med. School,
Dept. of Biol. as Appl. to Med.
* WOLPERT, L. - Prof., Dir.
* HAMILTON, Ms. L.
* LEWIS, J. H.
* TICKLE, Ms. C. A.
London, Natl. Inst. of Med. Res.
BURGEN, Sir A. - Dir.
GAZE, R. M. - Head Div. Dev. Biol.
TATA, J. R. - Sci. Staff Member
FELDMAN, Ms. J. D. - Div. Dev. Biol.
KEATING, M. J. - Sci. Staff Member
STIRLING, Ms. R. V. - Res. Asst.
London, Royal Coll. of Surgeons
BACKHOUSE, K. M.
London, Royal Postgr. Med. Sch.,
Dept. of Histopathol.
* TARIN, D.
London, Royal Vet. Coll.,
Dept. of Anat.
HANCOCK, J. L. - Prof.
Dept. of Physiol.
* DAWES, C. M.
London, St. Thomas Hosp. Med. Sch.,
Anat. Dept.
* GAMBLE, H. J. - Reader
* HEWITT, W. - Reader
* SHORO, A. A. - Lect.
London, Univ., King's Coll.,
Dept. of Physiol.
* FRANCE, V. M. - Lect.
London Hosp. Med. Coll.,
Dept. of Anat.
* BURGESS, A. M. C. - Lect.
Dept. of Dent. Pathol.
* MORGAN, P. R.
Queen Elisabeth Coll., Biol. Dept.
* JONES, G. E.
St. George Hosp. Med. School,
Dept. of Struct. Biol.
* WYLIE, C. C.
St. Mary's Hosp., Med. School,
Dept. of Anat.
* BELLAIRS, A. d'A. - Prof.
* BREATHNACH, A. S. - Prof.
* HOYES, A. D. - Sen. Lect.
Royal Free Hosp.,
Med. Sch., Dept. of Anat.
* HARRIS, J. W. S. - Prof.
London, Univ. Coll.,
Dept. of Anat. & Embryol.
JAMES, D. W. - Prof.
* BELLAIRS, Ms. M. R. - Reader
* LEFFORD (FERNANDO), Ms. F. - Lect.
* EVANS, M. J. - Lect.
* PORTCH, P.
Univ. Coll. Hosp. Med. School,
Dept. of Biochem. Pathol.
* SHERBET, G. V. - Sci. Staff Member
* LAKSHMI, Ms. M. S. - Sci. Staff Member
Dept. of Human Genet. & Biomet.
* LANDAUER, W. - Prof.
* DEOL, M. S.
* TRUSLOVE, Ms. G. M.

- Univ. Coll., MRC Mammalian Devl. Unit.
 * BUEHR, M. L.
 * SNOW, M. H. L.
 * McLAREN, Ms. A.
 * WHITTINGHAM, D. G.
 * MONK, Ms. M.
 Dept. of Zool. & Comp. Anat.
 * O'DELL, D. S. - Lect.
 * PRESTON, T. M. - Lect.
 * MIDDLETON, C. A. - Lect.
 * KING, C. A. - Lect.
 * FOX, H. - Res. Fellow
 * HEAYSMAN, Ms. J. E. M. WAKELING - Res. Fellow
 * PEGRUM, Ms. S. M. HALL - Res. Asst.
 * WHITEAR, Ms. M.
London (see also Ascot)
Manchester, Univ.,
 Fac. of Med., Dept. of Anat.
 * MCLEAN, J. M. - Sen. Lect.
 * LENDON, R. G. - Lect.
 * BAGNALL, K. M. - Asst. Lect.
 Dept. of Pathol.
 BARSON, A. J. - Sen. Lect.
 Dept. of Bot.
 * MOORE, D.
Newcastle upon Tyne, Univ.,
 Dental Sch., Dept. Oral Anat.
 * TONGE, C. H. - Prof., Head
 * BEYNON, A. D. G. - Lect.
 * LUKE, D. A. - Lect.
 Fac. of Med., Musc. Dystr. Res. Labs.
 * PARSONS, R. - Res. Assoc.
 * CULLEN, M. J. - Res. Assoc.
Norwich, Univ. of East Anglia,
 School of Biol. Sci.
 GIBSON, I. - Sen. Lect.
Nottingham, Univ.,
 Med. School, Dept. of Biochem.
 * MAYER, R. J.
 * PASKIN, N.
 Dept. of Human Morphol.
 * BALLS, M. - Sen. Lect.
 * CLOTHIER, R. H. - Res. Fellow
 Dept. of Zool.
 * MORRIS, B. - Reader
 Bot. Dept.
 BRIARTY, L. G. - Lect.
Orpington, Royal Coll. of Surg. Res. Estab.,
 Teratol. Labs.
 * KEITH, J. M. - Res. Asst.
Oxford, Univ.,
 Botany School
 * CLOWES, F. A. L.
 Dept. of Human Anat.
 * HORDER, T. J.
 * MORRISS, Ms. G. M.
 Zool. Dept.
 * NEEDHAM, A. E. - Lect.
 * GRAHAM, C. F. - Lect.
 * GARDNER, R. - Lect.
 * THOROGOOD, P. - Demonstr.
 * ADAMSON, Ms. E. D. - Res. Assoc.
 * PAPAIOANNOU, Ms. V. E. - Res. Assoc.
 Nuffield Lab. of Ophthalmol.
 * McAVOY, J. W.
Plymouth, Plymouth Polytechnic,
 Dept. of Environm. Sci.
 * MORGAN (WRIGHT), Ms. M. - Lect.
Portsmouth, Portsmouth Polytechnic,
 Dept. of Biol. Sci.
 * HERBERT, C. F.

- * TURNER, S. C. - Princ. Lect.
Reading, Univ., Zool. Dept.
 * SIMKISS, K. - Prof.
 * FRETTER, Ms. V. - Sen. Res. Worker
 * MUNTZ (REID), Ms. L. - Lect.
 * HORNBYS, Ms. J. E. - Lect.
 * HOLT (SULEY), Ms. A. C. E.
Southampton, Univ.,
 Dept. of Biol.
 * BILLETT, F. S. - Sen. Lect.
 * MacLEAN, N. - Sen. Lect.
 COCK, A. G. - Lect.
 * WILD, A. E. - Lect.
 * GARROD, D. R.
 Med. School, Dept. Human Morphol.
 * BULMER, D. - Prof.
 * PEEL, Ms. S. - Sen. Lect.
 Wessex Neurol. Centre
 * ILLIS, L. S. - Sen. Lect.
ISLE OF MAN
Port Erin, Univ. of Liverpool,
 Dept. of Marine Biol.,
 * NAYLOR, E. - Prof.
 * WILLIAMSON, D. I. - Reader
NORTH IRELAND
Belfast, Queen's Univ.,
 Med. Biol. Ctr., Anat. Dept.
 * YOUNG, B. A.
SCOTLAND
Aberdeen, Univ.,
 Immunol. Unit, Dept. of Bacteriol.
 * SOLOMON, J. B.
 * MYLVAGANAM, R. - Res. Asst.
 Marischal Coll., Dept. of Anat.
 * CLEGG, E. J. - Prof.
 Marischal Coll., Dept. of Devl. Biol.
 * MCKENZIE, J. - Reader
 * DYER, H. McM. - Lect.
 * SEDDON, B. - Lect.
 * DOUGLAS, A. H. M. - Lect.
 * MacMILLAN, Ms. G. J. - Lect.
 WHITE, Ms. J. - Res. Off.
Dundee, Univ., Med. Sci. Inst.,
 Dept. of Anat.
 * DICK, D. A. T. - Prof.
 * SMART, I. H. M. - Sen. Lect.
 * MANN, S. L. - Lect.
 * STURROCK, R. R. - Lect.
 * WEAKLEY (SHAW), Ms. B. - Lect.
 Dept. of Biochem.
 * DUTTON, G. J. - Reader
 * CAMPBELL, Ms. M. T.
 * WISHART, G. J.
Edinburgh, Agric. Res. Council,
 Poultry Res. Ctr.
 * EVANS, A. J.
 * GILBERT, A. B.
 * PERRY, Ms. M. M.
Edinburgh, Med. Res. Council,
 Clin. & Popul. Cytogenet. Res. Unit.
 ELSDALE, T. R.
Edinburgh, Univ.,
 Inst. of Anim. Genet.
 * BEATTY, R. A. - Sen. Princ. Sci. Off.
 * CAMPBELL, J. C. - Lect.

- * CLAYTON (FREEDMAN), Ms. R. M. - Sen. Lect.
- * JACOB, J. - Lect.
- * JONES, K. W. - Lect.
- * JURAND, A. - Lect.
- * LUCEY, E. C. A. - (cinematogr.)
- * ROBERTSON (PATON), Ms. E. M. - Exp. Off.
- * SELMAN, G. G. - Lect.
- * TRUMAN, D. E. S. - Lect.
- * JOHN, H. A. - Postd. Fellow
- * PRITCHARD, D. J.
- * THOMSON, I.
- * JACKSON, J. F.
- * de POMERAI, D. I.
- Dept. of Molec. Biol.
- * FORD, P. J.
- * DARBROUGH, C. H. - Res. Fellow
- Med. School, Dept. of Physiol.
- * SUMNER, Ms. B. E. H.
- PRESTIGE, M. C. - Lect.
- Dept. of Obstet. - Gynecol., Horm. Lab.
- * BAKER, T. G.
- * BURGOYNE, P. S. - Res. Fellow
- Dept. of Zool.
- TUFT, P. H. - Lect.
- SAUNDERS, D. S. - Lect.
- Glasgow, Beatson Inst. f. Canc. Res.
- PAUL, J.
- HARRISON, P. R.
- WILLIAMSON, R.
- Glasgow, Univ..
- Fac. of Sci., Dept. of Cell Biol.
- * CURTIS, A. S. G. - Prof., Head
- * LAWRENCE, A. J. - Sen. Lect.
- * EDWARDS, J. G. - Lect.
- * MOORES, G. R. - Lect.
- * EVANS, C. W. - Res. Fellow
- Dept. of Physiol.
- BALLARD, K. J.
- Dept. of Zool.
- * NEWTH, D. R. - Prof.
- * DOWNIE, J. R.
- * EDE, D. A. - Head Devl. Biol. Unit.
- * ULLMANN, Ms. S. L.
- * FLINT, O. P. - Res. Asst.
- Glasgow, Univ. of Strathclyde,
- Sch. of Biol. Sci., Biol. Dept.
- * PANTELORIUS, E. M.
- Vet. School, Anat. Dept.
- LINDSAY, Ms. F. E. F. - Sen. Lect.
- St. Andrews, Univ., Anat. Dept.
- THOMAS, D. B. - Prof., Head

WALES

- Aberystwyth, Univ. Coll. of Wales, Zool. Dept.
- * KEMP, R. B. - Lect.
- * ap GWYNN, I. - Sen. Res. Assoc.
- * HINCHLIFFE, J. R. - Sen. Lect.
- * EVANS, P. M. - Res. Assoc.
- Bangor, Univ. Coll. of N. Wales, Dept. of Forest & Wood Sci.
- * DENNE, M. P.
- Dept. of Zool.
- * WILSON, I. B. - Sen. Lect.
- * MORRISS, I. G. - Lect.
- * HEMMINGS, W. A. - Princ. Sci. Off.
- * HOARE (STERN), Ms. M.S.

- Cardiff, Univ. Coll., Dept. of Anat.
- * MOFFAT, D. B. - Prof.
- * PRESLEY, R. - Sen. Lect.
- Cardiff, Welsh Nat. Sch. of Med., Dept. of Haematol.
- TUDDENHAM, E. G. D. - Lect.
- Swansea, Univ. Coll., Zool. Dept.
- KNIGHT-JONES, E.W. - Prof.
- KING, P.E. - Reader
- RYLAND, J. S. - Reader
- JAMES, B. L. - Sen. Lect.
- MOYSE, J. - Lect.
- RATCLIFFE, N. A. - Lect.

U.S.S.R.

- Kerch, Azov-Black Sea Res. Inst.
- KULIKOVA, Ms. N. I. -Head
- Kharkov, State Univ., Biol. Dept.
- KUDOKOTSEV, V. P. -Reader
- HELPENBEIN, L. L. - Reader
- Kiev, Acad. of Sci. of the Ukraine, Zool. Inst., Dept. Cytol. & Histogen.
- * MAZHUGA, P. M. - Prof., Head
- Kutaisi, State Univ. of Tbilisi, Lab. of Exp. Zool.
- GOSHCHETELIANI, I. S. - Head
- Leningrad, State Univ., Biol. Inst., Lab. Exp. Ichthyol.
- * PERSOV, G. M. - Dir.
- * SAKUN, Ms. O. F. - Sen. Sci. Worker
- * FALEEEVA, Ms. T. I. - Jun. Sci. Worker
- * ZUBOVA, Ms. S. E. - Jun. Sci. Worker
- * GUREEVA-PREOBRAZHENSKAYA, Ms. E. V. - Jun. Sci. Worker
- * CHMILEVSKY, D. A. - Jun. Sci. Worker
- Biol. Fac., Dept. of Embryol.
- * TOKIN, B. P. - Prof., Head
- * IVANOVA (KASAS), Ms. O. M. - Prof.
- * KOROTKOVA, Ms. G. P. - Head Lab.
- * GABAEVA, Ms. N. S. - Docent.
- * KRITCHINSKAYA, Ms. E. B. - Docent
- * POLTEVA, Ms. D. G. - Docent
- * PYLILO, Ms. I. V. - Collab.
- * EFREMOVA, Ms. S. M. - Collab.
- * MALIKOVA, Ms. I. G. - Collab.
- * SVYATOGOR, G. P. - Asst.
- * BALAKHONOV, A. V. - Collab.
- * ALEKSEEVA, Ms. N. P. - Collab.
- Moscow, Acad. of Med. Sci. of the USSR, Inst. of Human Morphol.
- YVAZOV, O. E. - Prof., Head Lab.
- * LIOSNER, L. D. - Prof.
- * BABAYEVA, Ms. A. G. - Sen. Scient.
- ORLOVA, Ms. I. I. - Sen. Scient.
- * ROMANOVA, Ms. L. K. - Sen. Scient.
- * RYABININA, Ms. Z. A. - Sen. Scient.
- * SIDOROVA, Ms. V. F. - Sen. Scient.
- BARABANOV, V. M. - Sen. Scient.
- VERBICKY, M. S. - Sen. Scient.
- * KHARLOVA, Ms. G. V. - Jun. Scient.
- MURASHOVA, Ms. A. I. - Jun. Scient.
- * TIMASHKEVICH, Ms. T. B. - Jun. Scient.
- MOLOTKOVA, Ms. L. F. - Res. Asst.
- * EFIMOV, E. A.
- Inst. of Med. Genet., Cytol. Lab.
- SKATKOV, M. E. - Sen. Res. Asst.
- Inst. of Med. Genet., Lab. Exp. Genet.
- * IVANOV, V. I. - Prof., Head

- * GINTER, E. K. - Res. Worker
- * MGLINETZ, V. A. - Res. Worker
- * VAKHRUSHEVA, Ms. M. P. - Res. Worker
- * OSIPOV, V. V. - Res. Worker
- * BULYZHENKOV, V. E. - Res. Worker
- * KAUVOR, B. A. - Res. Worker
- Moscow, Acad. of Sci. of the USSR,
Inst. of Devl. Biol.
TURPAYEV, T. M. - Prof., Dir.
- * AISENSTADT, T. B. - Res. Worker
- * AKHABADZE, L. V. - Res. Worker
- * BABURINA, Ms. E. A.
- * BOZDZILOVSKAYA, V. P.
- * BUZNIKOV, G. A. - Sen. Res. Worker
- * DAVIDOVA, S. I. - Res. Worker
- * DETTLAFF, Ms. T. A., Prof., Head Lab.
Exp. Embryol.
- * GINSBURG, Ms. A. S. - Sen. Res. Worker
- * GONCHAROV, B. F.
- * HOPERSKAYA, Ms. O. A. - Res. Worker
- * IGNATIEVA, Ms. G. M. - Sen. Res. Worker
- KANTOROVA, Ms. V. I. - Res. Worker
- * KOSTOMAROVA, Ms. A. A. - Res. Worker
- KOTOMIN, A. V. - Res. Worker
- * LOPASHOV, G. V. - Prof., Head Lab. Orga-
nogen.
- MALIOVANOVA, Ms. S. D. - Res. Worker
- * MANUKHIN, B. N. - Sen. Res. Worker
- * MARKOVA, Ms. L. N. - Res. Worker
- MARSHAK, Ms. T. L. - Res. Worker
- * MIKHAILOV, A. T. - Res. Worker
- * MITASHOV, V. I. - Res. Worker
- * MITSKEVICH, M. S. - Prof., Head Lab.
Horm. Regul.
- NEYFAKH, A. A. - Prof.
- NIKITINA, Ms. L. A. - Res. Worker
- * PANNOVA, Ms. I. G. - Res. Worker
- * ROTT, Ms. N. N. - Sen. Res. Worker
- SADOKOVA, Ms. I. E. - Res. Worker
- * SKOBELINA, M. N. - Sen. Res. Worker
- * SOLOGUB, Ms. A. A. - Res. Worker
- * STROEVA, Ms. O. G. - Sen. Res. Worker
- * TEPLITZ, Ms. N. A. - Res. Worker
- TUCHKOVA, Ms. S. J. - Res. Worker
- * VASSETZKY, S. G. - Res. Worker
- * ZOTIN, A. I. - Prof., Head Lab. Devl. Bio-
phys.
- A. N. Severtzov Inst. of Evol. Morphol. & Ecol.
of Anim.
- * SCHMIDT, G. A. - Prof.
- * DRAGOMIROV, N. I. - Prof.
- * BAEVSKY, J. B.
- * RAGOZINA, Ms. M. N.
- * KOSHELEV, B. V.
- * ZUSMAN, I. N.
- * TCHERNIAEV, G.
- SYTINA, Ms. L. A.
- * ZAITZEV, A. V.
- * RUBTSOV, V. V.
- Inst. of Gen. Genet., Phenogenet. Lab.
* KONYUKHOV, B. V. - Prof., Head
- * PLATONOV, E. S. - Sen. Sci. Worker
- * SAZHINA, Ms. M. V. - Jun. Sci. Worker
- * MALININA, Ms. N. A. - Jun. Sci. Worker
- * BUGRILLOVA, Ms. R. S. - Jun. Sci. Worker
- Moscow, State Univ., Biol. Fac.,
Chair of Embryol.
- * GAZARYAN, K. G. - Prof., Dir.
- * BELOUSSOV, L. V. - Sen. Res. Worker
- * DABAGIAN (ERAMICHEVA), Ms. N. V. -
Sen. Lect.
- * GOLICHENKOV, V. A. - Sen. Res. Worker

- * SMIRNOVA, Ms. E. I. - Sen. Lect.
- * OSTROUMOVA, Ms. T. W. - Res. Worker
- * MELEHOVA, Ms. O. P. - Res. Worker
- * IVANOV, E. A. - Lect.
- * MESHCHERYAKOV, V. N. - Res. Worker
- Moscow, All-Union Res. Inst. Mar. Fish. &
Oceanogr.,
Lab. Physiol. & Biochem.
- * APEKIN, V. S.
- Novosibirsk, Inst. of Cytol. & Genet.,
Lab. of Devl. Genet.
- * KOROCHKIN, L. I. - Prof., Head
SVIRIDOV, S. M. - Head of Group
- KUZIN, B. - Head of Group
- SEROFF, O. - Head of Group
- MATVEEVA, Ms. N. - Asst.
- RAUSCHENBACH, Ms. I.
- ARONSCHTAM, A. - Postgr. Stud.
- KERKIS, Ms. T. - Postgr. Stud.
- Tbilisi, Acad. of Sci. of the Georg. SSR,
Inst. of Exp. Morphol., Dept. Devl. Biol.
- * TUMANISHVILI, G. D. - Prof., Head
- * JANDIERI, Ms. K. M. - Sen. Sci. Worker
- Inst. of Exp. Morphol., Dept. of Gerontol.
- * SALAMATINA, Ms. N. V. - Sen. Sci.
Worker
- Inst. of Zool., Dept. Anim. Embryol.
- CHANTURISHVILI, P. S. - Prof., Head
- KORKIA (NIJARADZE), Ms. I. R.
- KANKAVA, Ms. B. L.
- KURULASHVILI, Ms. L. I.
- KINČURASHVILI, Ms. N. T.
- SICHARULIDZE, Ms. T. A.
- TSCHADAJA, E. A. - Jun. Res. Worker
- TVOROGOVA, Ms. A. G. - Jun. Res. Worker
- KALATOSISHVILI, Ms. M. D. - Jun. Res.
Worker
- Tbilisi (see also Kutaisi)
- Vladivostok, Vladivostok Med. Inst.
- * BAZITOVA, A. A.
- Vladivostok, Inst. of Marine Biol.
- * KASYANOV, V. L.
- * KRUCHKOVA, Ms. G. A.
- * KULIKOVA, Ms. V. A.
- WALES (see UNITED KINGDOM)**
- YUGOSLAVIA**
- Beograd, Inst. for Biol. Res.,
Lab. of Devl. Biochem.
- ŠEVALJEVIĆ (MIRKOVIĆ), Ms. L.
- Beograd, Inst. of Nucl. Sci. "Boris Kidric",
Lab. of Mol. Biol. & Endocrinol.
- MARTINOVITCH, P. N. - Sen. Scient.
- ŽIVKOVIĆ, Ms. N. - Res. Assoc.
- PAVIĆ, Ms. D. - Res. Assoc.
- Beograd, Univ., Immunol. Res. Ctr.
- JANKOVIĆ, B. D. - Prof.
- LUKIĆ, M. L. - Res. Fellow
- VUJANOVIĆ, N. L. - Res. Fellow
- Zagreb, Univ., Fac. of Med.,
Inst. of Anat. "Drago Perović"
- KRMPOTIC-NEMANIĆ, Ms. J. - Prof.
- KOSTOVIĆ, I. - Docent
- Inst. of Biol.
- * ŠKREB, N. - Prof.
- * MILKOVIĆ (ŽULJ), Ms. K. - Prof.
- * HERMAN Č. - Prof.
- * LEVAK (ŠVAJGER), Ms. B. - Docent

* MÜLLER, M. – Asst.
* HOFMAN, Ms. L. – Asst.
* SERMAN, D. – Docent
* PERUZOVIĆ (GRADT), Ms. M. – Asst.
* KLEPAC, R. – Asst.
* PAUNOVIĆ, Ms. J. – Res. Asst.
* CRNEK, Ms. V. – Asst.
Inst. of Histol. & Embryol.
* POSINOVEC, Ms. J. – Prof.
* ŠVAJGER, A. – Prof.
* KOSTOVIĆ (KNEŽEVIĆ), Ms. L. – Asst.
* DURST (ŽIVKOVIĆ), Ms. B. – Docent

* BRADAMANTE, Z. – Asst.
Inst. of Pathol.
DAMJANOV, I.
BELICZA, M.
Fac. Nat. Sci., Dept. of Zool.
RODÈ, B. – Prof.
LUI, A. – Prof.
ŽNIDARIĆ, Ms. D. – Asst.
KRALJ, N.
PIRKIĆ, A.
Fac. of Sci., Dept. of Biol.
* JELASKA, Ms. S. – Res. Asst.

SUBJECT INDEX

(alphabetic order)

NOTE new headings, particularly for work on *plants* and *unicellular organisms*, on next page!

All research subjects in the Directory of Names and Addresses are represented by at least one entry. The names of investigators refer back to that Directory.

Headings are printed in capitals. New headings are listed on the next page. Headings generally come under one of the following categories:

- 1) Structures, e.g. organs, tissues, cells
- 2) Substances or classes of substances
- 3) Developmental stages, processes, and factors (including metamorphosis, regeneration, developmental genetics, reproduction, developmental pathology)
- 4) Techniques appearing as headings are: Chemical microanalysis, Culture & preservation, Immunochemistry, Irradiation, Microcinematography, Rearing methods, Transfer (Blastocyst, etc.), Transplantation, Ultraviolet Irradiation, Vital staining, X-Irradiation. Other techniques will be found as subheadings (see below).
- 5) General subjects: History, Theoretical biology.

Headings are extensively cross-referenced, but not usually from lower-order to higher-order categories.

Subheadings

Headings having less than ca. 10 names of investigators usually lack subheadings.

The same research subject may be listed more than once under the same heading, e.g. under a structure and a technique.

Subheadings come under one of the following categories:

- 1) Entities subordinate to the heading
- 2) Entities related to the subject of the heading
- 3) Techniques, disciplines, and processes. These are often chosen from the list appearing on the next page; some of these terms are also used as headings – the resulting redundancy is unavoidable; it is considered rather an advantage because it provides several entrances to the same subject.
- 4) Developmental stages; see the list on the next page.
- 5) Links with other entities, such as “effect on . . . , effect of . . . , interactions with . . . ”.

Animal and Plant Names

Throughout the index Classes (and in some cases Phyla) are used exclusively. Exceptions are: the use of Homo for work on the human species, and the use of Orders under some general headings: Development (general), Development (larval), Development (post-embryonic, fetal), Embryology (general & descriptive), Embryology (physiological), Life cycles, Regeneration, Reproduction.

Those who are looking for work on a specific taxonomic group are advised to start with the headings of a general nature, such as Asexual reproduction, Development, Embryology, Life cycles, Metamorphosis, Morphogenesis, Regeneration, Reproduction, etc.

Names of investigators

In the case of work carried out jointly by two or more investigators, all collaborators are listed in alphabetical order. Since initials of first names are omitted from the entries, it may sometimes be necessary to check two or more investigators of the same surname in the Directory of Names.

Headings cancelled

Plant embryology & morphogenesis
Unicellular organisms

New Headings

Amitosis	Mammary Gland
Apical Dominance	Meristems
Cell Death	Osmoregulation
Cell Wall	Parasitism
Chalones	Photomorphogenesis
Cyst & Encystment	Phyllotaxis
Development (Plant: general)	Root
Development (Unicellular organisms: general)	Salivary Gland
Dormancy	Seed (& Germination)
Egg Coverings	Sex Differentiation
Embryology (Plant: experimental)	Sex Reversal
Flower(ing)	Shell (body covering)
Free-martin(s)	Shoot
Fruit(ing)	Silk Gland
Hermaphroditism	Spore (& Sporulation)
Hormones (plant)	Synapse
Implantation	Vascular Tissue
Intersexuality	Vitellogenesis
Leaf	Viviparity

Subheadings often used under various headings

Techniques and disciplines

Autoradiography	Histology
Biochemistry (incl. techniques)	Histo-& cytochemistry
Biophysics	Immunology
Culture in vitro	Irradiation
Cytology	Microcinematography
Descriptive study*	Molecular Biology
Endocrinology	Morphology
Enzymes	Physiology
Experimental study*	Theoretical study
Function	Tracer study
General study*	Transplantation
Genetics	Ultrastructure

Processes

Development*	Metamorphosis
Differentiation	Morphogenesis
Functional differentiation (maturation)	Necrosis (cell death)
Growth	Pattern formation
Induction	Pathology
Involution (regression)	Regeneration
Malformations	Teratogenesis

Stages

Early stages	Oocyte
Egg	Oogenesis
Embryo	Placenta
Fetus	Postnatal
Larva	Spermatogenesis
Neonate	

* These subheadings are also used when the available information was not detailed enough to use one of the more specific subheadings.

ABDOMINAL CAVITY
see Body cavities

ABNORMALITIES
see Anomalies (early development); Malformations
see also Teratogenesis

ABORTIONS
see Malformations; Pathology

ACCESSORY SEX GLANDS
see Reproductive system

ACTIN
see Muscle(s)

ACTINOMYCIN
see also Antibiotics

Insecta Truckenbrodt

ACTIVATION
see Fertilization

ADAPTATION
see also Environmental factors;
Phylogenesis

Amphibia Briegleb
Aves Zusman
Homo Boer

Dogterom
Hodde
Leeuwen
Swaab
Uylings
Veltman

Insecta Chauvin
Delay
Fourche
Juberthie

Mammalia Boer
Dogterom
Hodde
Leeuwen
Swaab

Uylings
Veltman

Reptilia Zusman
Teleostei Durand
Vertebrata Durand

ADHESIVE GLAND
see Gland(s)

ADIPOSE TISSUE(S)
see also Lipid(s)

Aves Dyer
Insecta Labour
Papillon
Scheller
Mammalia Mayer

ADRENAL GLAND
see also Cortisone; Insulin;
Steroids

cortex
Mammalia Mitskevich
culture in vitro
Homo Bukulya
Gyeval

Mammalia Bukulya
experimental study Gyeval

Mammalia Mitskevich

Amphibia Pehleemann
Homo Bukulya
Geyval
Mammalia Bukulya
Gyeval

histochemistry
Mammalia Bielanska
Klepac
Milkovic
Paunovic
Peruzovic
Verhofstad

medulla
Mammalia Verhofstad

pathology
Mammalia Gabriel

ultrastructure
Amphibia Pehleemann
Homo Bukulya
Gyeval

Mammalia Bielanska
Bukulya
Gyeval

AGE (AGING)
Homo Salamatina
Mammalia Jones
Pantelouris
effect on wound healing
Homo Raekallio
Mammalia Raekallio
fibroblast in vitro
Mammalia Van Gansen
reflexes
Mammalia Cadilhac

AGGREGATION
see Cell(s)

AIR BLADDER
see Lung(s)

AIR SACS
see Lung(s)

ALIMENTARY TRACT
see Digestive tract

ALKYLATING AGENTS

ALLANTOIS
see Embryonic membranes

AMINE(S)
see also Neurotransmitters

Echinoidea Brachet

AMINO ACID(S)
see also Neurotransmitters

Amphibia Anton
Echinoidea Toneby
Euglenophyc Salvador
Homo Challier
Insecta Chen
Collin

Mammalia Choroszewska
Mankowska
Safanda

AMITOSIS

Amniota Vahs
Amphibia Pehlemann
Homo Phelemann

AMNION
see Embryonic membranes

ANABIOSIS
see Diapause

ANDROGENESIS
see Genetics

ANESTHESIA

Homo Lansdown
Mammalia Lansdown

ANEUPLOIDY
see Heteroploidy

ANIMAL GRADIENT (animalization)
see Gradients
see also Embryology (experimental); Embryology (physiological)

ANOMALIES (early development)
see also Pathology;
Teratogenesis

lethal factors
Insecta Scriba

ANOMALIES (later development)
see Malformations
see also Teratogenesis

ANOXIA
see Respiration

ANTIBIOTICS
see also Actinomycin

Amphibia Stagni
Ciliata Vannini
Insecta Golinska
Duke Truckenbrodt

ANTIBODIES
see Immunology

ANTIGENS
see Immunology

ANTIMETABOLITES

Amphibia Namur
Aves Meiniel
effect on cell cycle
Gastropoda Boon
fluorouracil
Insecta Duke
oogenesis
Amphibia Pays
Teleostei Pays

protease inhibitor		AUTONOMIC NERVOUS SYSTEM	BIO-ELECTRICITY
Amphibia	Ficq		Amphibia Capuron
teratogenesis			
Mammalia	Horvath Mercier Roux Tuchmann	Aves Ambrosi Mammalia Le Douarin Lemez Smith Teillet Csillik Gajo Kalman Knyihar Nie Nyiri	BIO-ENGINEERING see Culture & Preservation; Transfer
ANTIMITOTIC AGENTS			BIOGENIC AMINES see Neurotransmitters
Echinoderm	Petzelt		BIOMETRY see Growth
Mammalia	Mercier Tuchmann		
ANTLERS			BIRTH
see Horns			
AORTA		BACTERIA	Homo Gennser Mammalia Naaktgeboren Steven
see Vascular system		see also Toxins	
see also Heart (& great vessels)			
APICAL DOMINANCE		Crustacea Legrand Homo Jiricka Hydrozoa Muller Mammalia Jiricka	BLADDER see Urogenital system
Angiosp	EI Hajzein Neville Phillips	BEAK	BLASTEMA see Regeneration (traumatic)
ARCHENTERON (roof)		BEHAVIOUR (embryonic & postnatal	BLASTOCYST see also Cleavage; Implantation; Transfer (blastocyst, etc.)
see Gastrulation; Neurulation		Crustacea Naylor Homo Pilleri Mammalia Bruin Oyen Poll	aggregation Mammalia Barnes
see also Induction		embryo	biochemistry Mammalia Alexandre
ASEXUAL REPRODUCTION		Amphibia Roberts Aves Sedlacek Teleostei Vince Alfei	culture in vitro Mammalia Flechon Glenister McLaren Torres
(& development)		foetus	cytochemistry Mammalia Jirsova
see also Culture & Preservation		Mammalia Vince	delayed implantation Mammalia McLaren
Ascidiae	Ianova	larva	diapause Mammalia Baevsky
Hydrozoa	Polteva Schmid Vannini	Echinoidea Backstrom Gustafson	differentiation Homo Martinek Mammalia Martinek
Oligochaeta	Stagni	locomotion	embryo absorption Mammalia Swanson
Phoronidea	Emig	Amphibia Brändle	endocrinology Homo Beier Mammalia Beier
Porifera	Korotkova	movement	genetics Mammalia Burgoyne
Scyphozoa	Hofmann	Homo Bagnall	immunology Mammalia Amoroso
Turbellaria	Kritchinskaya Tognato Tokin Torok Vannini	neuron	inner cell mass Mammalia Burgoyne
ASYMMETRY		postnatal	pathology Homo Panigel
see Symmetry		Mammalia Ebendal	physiology Mammalia Marston
AUDITORY ORGAN		relation with nerve cells	teratogenesis Mammalia Madjerek
(& external ear)		Amphibia Baker Bakhuys Corner Romijn	trophoblast Homo Billington Dillon Harris Jenkinson Panigel Searle Sellens Smith
Aves	Campelo Garcia	Mammalia Baker Bakhuys Corner Romijn	
Mammalia	Bradamante Campbell Chaloupka Deol Joseph Kostovic Marty Morris Svajger Truslove	BIDDER'S ORGAN	
		Amphibia Gardenghi Anura Zaccanti Vannini	

Mammalia	Alexandre Amoroso Billington Burgoyne Denker Dillon Glenister Harris Jenkinson Legrand McLaren Searle Sellens Smith Zeilmaker	hemoglobin Amphibia Aves Crustacea Homo Vertebrata hemoglobin switch Amphibia macrophage Homo molecular biology Crustacea physiology Aves serum Aves stem cells Aves teratogenesis Aves thrombocyte Aves ultrastructure Cephalop	Flavin Sala Geraci Kondo Godet Ramirez Trabuchet MacLean Weber Gotzos Kondo Dawes Carinci Jelinek Samarut Jelinek Lemez Meister	periost Aves Mammalia stem cells Aves tracer studies Mammalia ultrastructure Mammalia	Nijweide Nijweide Thorogood Gaillard Scherft Valkema
ultrastructure	Homo	Martinek Panigel Alexandre Flechon Glenister Gulamhussein Hinchliffe Jirsova Martinek	Aves serum Aves stem cells Aves teratogenesis Aves thrombocyte Aves ultrastructure Cephalop	Dawes Carinci Jelinek Samarut Jelinek Lemez Meister	BONE MARROW see also Hematopoiesis
	Mammalia				Mammalia Mazhuga
					BRAIN
					Crustacea Homo Insecta Mammalia
					Daguerre Hewitt Schurmann Hewitt Pilleri
					aminergic system
					Aves
					Ivanoff
					auditory centre
					Mammalia
					Chaloupka Rokyta Zahlava
					autoradiography
					Aves Mammalia
					Meller Fulcrand Meller
					biochemistry
					Aves
					Stastny Vilanova
					Homo Mammalia
					Rokyta Rokyta Rooy Safanda
					biophysics
					Homo Mammalia
					Butler Rokyta Zahlava
					brain vesicle
					Aves
					Alexandru Checiu Menkes
					cell migration
					Aves
					Puelles
					cell population
					Mann
					cerebellum
					Aves
					Pascual Stefanelli
					Bernocchi
					Berry
					Fraschini
					Kaufmann
					Korneliussen
					Manfredi
					Porcelli
					Redi
					Scherini
					Pouwels
					Teleostei
					choroid plexus
					Aves
					Stastny
					corpus callosum
					Mammalia
					Glas
					cortex
					Mammalia
					Berry Chronwall Kaufmann Marty
BLASTODERM					
see also Cleavage; Primitive streak					
Aves	Breathnach Downie Lutz McMaster Modak Vakaet Van Roelen				
Insecta	Louvet				
Teleostei	Hoperskaya				
BLASTODISC					
see Blastoderm					
BLASTOMERES					
see Cleavage					
BLASTULA					
see Cleavage					
BLOOD					
see also Circulation; Hematopoiesis; Hemolymph; Vascular system					
biochemistry					
Homo	Thiery				
cells					
Cephalop					
culture in vitro					
Aves	Meister				
Homo					
endocrinology					
Mammalia	Eckstein				
erythrocyte					
Aves	Blanchet Godet Lemez Nigon				
genetics					
Homo	Godet Trabuchet				

culture in vitro		Homo	Stark	telencephalon	
Aves	Meller Stefanelli	Mammalia	Grignon Guedenet	Aves	Camosso
Mammalia	Meller		Gyeval	Homo	Kostovic
descriptive study			Mestres	Mammalia	Glas
Mammalia	Gih Kraus	Vertebrata	Stark	thalamus	Kostovic
diencephalon		inhibitory neuron	Oksche	Mammalia	Rokyta
Aves	Camosso Ivanoff	Mammalia	Chronwall	tracts	Zahlava
Mammalia	Mann	involution	Fulcrand	Mammalia	Rokyta
effect of deprivation		Mammalia	Marty	ultrastructure	
Mammalia	Sturrock	malformations		Aves	Meller
effect of drugs		Aves	Guirao	Homo	Kostovic
Mammalia	Raedler	Homo	Guirao	Mammalia	Gyeval
effect of mat. malnutrition		Mammalia	Woollam		Kaufmann
Mammalia	Bernocchi Frascini Manfredi Porcelli Redi Scherini	Mammalia	Lierse		Korneliussen
effect on skull		Mammalia	Woollam		Kostovic
Aves	Schowling	mapping	Smart		Lierse
endocrinology		Mammalia	Marty		Meller
Mammalia	Mestres	maturity			Pietzsch
enzymes		Mammalia			Sievers
Aves	Rinaudo	meninges			Sumner
Homo	Rooy	Homo	Muller		Pouwels
Mammalia	Kaufmann Rooy	mesencephalon	Aves	Teleostei	Oksche
experimental study		Mammalia	Roncali	Vertebrata	
Aves	Baehny	Mammalia	Schiebler	vascularization	
fibre tract		mesencephalon	Homo	Aves	Camosso
Mammalia	Sturrock	Aves	Mestres	Homo	Roncali
fissure closure		Mammalia			Kostovic
Mammalia	Glas	neurogenesis			Lierse
fluid		Mammalia			Muller
Aves	Vilanova	neurons			Bugge
function		Mammalia	Baumgarten		Knudsen
Aves	Stastny	nuclei			Kostovic
Homo	Butler	Mammalia	Jansen		Lierse
Mammalia	Chaloupka	olfactory centre			
genetics		Aves	Stefanelli	vesicles	
Mammalia	Rokyta Schiebler	optic centre & tract		Aves	Guirao
growth		Aves	Puelles	Homo	Guirao
Mammalia	Zah lava	Mammalia	Raffin		
hemisphere		Vertebrata	Fulcrand		
Aves	Vilanova	organ interaction	Marty		
Homo	Stastny	Aves	Clairambault		
Mammalia	Butler	Mammalia	Horder		
histo- & cytochemistry		vertebrata			
Mammalia	Chaloupka	perinatal			
histogenesis		Aves	Baehny		
Aves	Rokyta	Homo	Guirao		
histology		physiology	Guirao		
Vertebrata	Schiebler	Amphibia	Guirao		
histo- & cytochemistry		prosencephalon	Roberts		
Mammalia	Zah lava	Mammalia	Gribnau		
histogenesis		regeneration	Smart		
Aves	Bernocchi	Mammalia			
Homo	Frascini	Vertebrata			
Mammalia	Kozik	retino-hypothalamic connec-			
histo- & cytochemistry		Lierse	tions		
Mammalia	Manfredi	Teleostei	Oksche		
histogenesis		retino-tectal connections			
Aves	Porcelli	Amphibia			
Homo	Redi	retino-tectal system			
Mammalia	Scherini	Teleostei			
histo- & cytochemistry		rhombencephalon			
Mammalia	Schiebler	Amphibia			
histogenesis		stem			
Aves	Sumner	Mammalia			
histology		subcommissural organ			
Vertebrata	Ivanoff	Teleostei			
hypoglossal nucleus		Vertebrata			
Mammalia	Oksche	supraependymal structures			
hypothalamus		Mammalia			
Aves	Grignon Guedenet				
histogenesis					
Aves					
histology					
Vertebrata					
hypoglossal nucleus					
Mammalia					
hypothalamus					
Aves					

glycogen		Aves	Curtis	culture in vitro
Ascidiae	D'Anna		Edwards	Lefford
Aves	Meiniel		Evans	Edwards
Mammalia	Jost		Jones	Flint
Teleostei	Benedetti	Gastropoda	Kemp	McKenzie
glycoprotein		Mammalia	Jones	Middleton
Aves	Kemp	Mollusca	Evans	Salamatina
hexose		Porifera	Biggelaar	Tumanishvili
Homo	Challier	adhesion & teratogenesis	Curtis	Echinoidea
mucopolysaccharides		Amphibia	Burgess	Homo
Aves	Romanova	affinity		Insecta
	Cuminge	Amphibia	Grunz	
	Dubois	Insecta	Garcia	
	Robert	aggregation & reaggregation		Mammalia
Echinoidea	Vakaet	Acrasiales	Gerisch	
Mammalia	Immers		Kakebeeke	cytochemistry
	Garcia		Konijn	Aves
	Heine	Amphibia	Malchow	dissociation
	Linde		Englander	Aves
	Moczar		Smith	Echinoidea
	Robert		Stanisstreet	enzymes
	Svejcar	Asciidae	Patricolo	Echinoidea
nervous system		Aves	Curtis	Homo
Teleostei	Benedetti		Edwards	growth control
placental transfer		Mammalia	Meller	Mammalia
Homo	Challier		Parsons	
polysaccharides	Dhainaut	binucleate	Steven	
Polychaeta		Mammalia	Lakshmi	
sporophore			Sherbet	
Fungi	Hammond	biochemistry	Curtis	
teratogenesis			Salamatina	
Aves	Meiniel		Tumanishvili	
Mammalia	Clavert	Echinoidea	Vittorelli	
	New	Mammalia	Bertini	
	Svejcar		Comoglio	
			Johnson	
			Prat	
			Salamatina	
			Tarone	
			Tumanishvili	
CARCINOGENETIC AGENTS				
see also Tumour(s)				
Amphibia	Ceas			
Echinoidea	Ceas			
Mammalia	Elger			
CARTILAGE				
Aves	Gumpel			
	Knese			
	Rinaudo			
	Strudel			
Homo	Knese	Amphibia	Lakshmi	Angiosp
Mammalia	Bradamante		Sherbet	Amphibia
	Burger	Aves	Belousov	
	Knese		Belousov	Aves
	Kostovic	Insecta	Beyse	
	Kvinnslund		Seydewitz	
	Mazhuga			
	Svajer	chemotaxis		
	Thorogood	Acrasiales	Kakebeeke	
			Konijn	
			Malchow	
			Mato	
			Wurster	
		contact		
		Amphibia	Belousov	Echinoidea
		Aves	Belousov	
			Downie	
			Mestres	
			Pannese	Mammalia
			Pegrum	
			Sengel	
		Echinoidea	Moreau	
		Gastropoda	Dohmen	
			Meshcheryakov	
			Wal	
		Mammalia	Pegrum	
adhesion	Acrasiales	Mollusca	Biggelaar	
	Garrod		Moreau	
		Tunicata	Georges	
				Mollusca
				Polychaeta
				Porifera

migration	Ebdanal Lefford Gipouloux Lofberg Bellairs Christ Hach Jacob Le Douarin Portch Puelles	CELL CYCLE	ap Gwynn Ashworth Anton Bereiter Lohmann Mitashov Sladecek Yamada	CELL WALL see also Membrane
Amphibia	Acrasiales	Fungi	Raeven Sietsma Wessels	
Aves	Amphibia	CENTRAL NERVOUS SYSTEM		
		see also Brain; Neural crest; Neural plate; Spinal cord		
Mammalia	Angiosp Aves	Mammalia	Pilleri	
Teleostei	Ciliata	autoradiography		
molecular biology	Crustacea	Aves	Meller	
Aves	Eumycetoz	Mammalia	Meller	
Echinoidea	Gastropoda	behaviour		
Insecta	Homo	Mammalia	Auroux	
movement	Mammalia	biochemistry		
Acrasiales	Durston	Teleostei	Benedetti	
Aves	Flint	biophysics		
	Kemp	Aves	Sedlacek	
	Middleton	Mammalia	Sobotka	
	Moores	changes after stimulation		
	Sengel	Mammalia	Illis	
	Wakely	connections		
Gastropoda	Jones	Mammalia	Chaloupka	
Mammalia	Dyson	culture in vitro		
	Middleton	Amphibia	Stefanelli	
mutant	Aves	Aves	Meller	
Aves	Flint	Mammalia	Bisconte	
recognition		Teleostei	Meller	
Aves	Evans	development	Stefanelli	
	Garrod	Homo	Bossy	
	Kemp	electrophysiology		
Insecta	Garcia	Mammalia	Corner	
Mammalia	Robert	embryonic motility		
shape	Aves	Aves	Sedlacek	
Aves	England	Amphibia	Szekely	
	Wakely	Mammalia	Chaloupka	
size	Amphibia	functional differentiation		
Chlorophyc	Byczkowska	Homo	Bossy	
surface	Koop	genetics		
	ap Gwynn	Insecta	Campos	
	Augusti	histochemistry		
	KilarSKI	Mammalia	Kozik	
	Lakshmi	histology		
Amphibia	Sherbet	Mammalia	Mularek	
	Geuskens	induction		
	Tencer	Amphibia	Kurrat	
	Yamada	Aves	Strudel	
Aves	Chiquet	Insecta		
	Curtis	Bernard		
	Evans	Halfer		
	Mestres	Mammalia		
	Moores	Austin		
Insecta	Van Roelen	Bogenmann		
Mammalia	Mandaron	Luger		
	Johnson			
	Surani			
tissue recognition	Cudennec	CELL HEREDITY		
		see also Cell fusion		
		Insecta		
		Morata		
		Mosna		
		Ripoll		
		Santamaría		
		Wyss		
		CELL-LINEAGE		
		see Embryology (experimental)		
		Insecta		
		Mauthner cells		
		Amphibia	Stefanelli	
		Teleostei	Stefanelli	
		microcinematography		
		Aves	Menkes	
		myelin		
		Homo	Wender	
		Mammalia	Wender	
		necrosis		
		Aves	Ojeda	
		CELL RENEWAL		
		see Regeneration (physiological)		

neural tube		heavy metals	Palladini	CHOROID PLEXUS see Brain
Aves	Peters Jurand Menkes Strudel	Amphibia Crustacea Musci Turbellaria	Pihan Simola Palladini	CHROMAFFIN CELLS
Mammalia	Morriß Jurand	iron	Chalumeau	CHROMATIN see Chromosomes
Rodentia		Amphibia Homo	Chalumeau	CHROMATOPORE(S)
neuroglia		Mammalia	Chalumeau	
Aves	Stastny	lead	Wide	Amphibia D'Anna
Insecta	Tesch	Mammalia		La Spina
Mammalia	Illiš Kozik Lierse Marty Mularek Sturrock	lithium	Englander Koebke Stanisstreet Wall	MacMillan
physiology		nitrogen	Schultheiss	CHROMOSOMES see also Cytogenetics
Aves	Sedlacek	Amphibia		
Mammalia	Auroux	oxygen	Musy	abnormalities
regeneration		Aves	Lierse	Homo Barnes
Mammalia	Berry Illiš	Mammalia		Tudose
Vertebrata	Horder	strontium	Nijweide	Barnes
relation to sense organs	Amphibia	Aves	Nijweide	Cappannini
role of neurones	Brändle	Mammalia		Niemierko
Mammalia	Corner	CHEMICAL MICRO- ANALYSIS		Tarkowski
spinal motor column		CHEMICALS (biologically active)		Witkowska
Amphibia	Szekely	see specific chemicals (Antibiotics; Antimitotic agents etc. etc.); Chemical elements; Drugs; Ions; Teratogenesis		banding pattern
teratogenesis	Aves			Amphibia Bailly
	Alexandru	CHEMORECEPTORS		behaviour
	Checiu			Mammalia Snow
Mammalia	Lanot			biochemistry
ultrastructure	Lendon			Arachnida Tempelaar
Aves	Meller			Insecta Ribbert
Mammalia	Ojeda			chromatin
vascularization	Meller			Amphibia MacLean
Aves	Tudose			Aves Ficq
Homo	Gamble			
CENTRIFUGATION		CHIMERAS		Appleby
see Embryology (experimental); Embryology (physiological)				Jandieri
CEPHALOGENESIS		Amphibia	Fox	Modak
see Head		Aves	Whitear	Tumanishvili
CEREBELLUM		Mammalia	Drukker	Cognetti
see Brain				Geraci
CHALONES		CHONDROCRANIUM		Bachmann
Amphibia	Brugal			Maehr
Homo	Richter			Schmidt
CHEMICAL ELEMENTS				Jandieri
see also Ions		Amphibia	Boucaut	Kral
arsenic		Aves	Jotereau	Tumanishvili
Musci	Simola		Le Douarin	constrictions
calcium			Martin	Amphibia Bailly
Amphibia	Duncan		Starre	culture in vitro
Aves	Nijweide		Teillet	Insecta Dennhofer
Mammalia	Simkiss	Mammalia	Buehr	development
fluorine	Nijweide		Elbling	Turbellaria Deri
Aves	Van Toledo		Johnson	elimination
Mammalia	Ilieš		Lyon	Insecta Camenzind
Musci	Simola		McLaren	function
	Tewari		Mystkowska	Insecta Ashburner
			Papaioannou	
			Seller	heterochromatin
				Amphibia Bailly
				Insecta Faccio
				Mammalia Traut
		Homo	Becker	Kinsky
		Mammalia	Gathmann	irradiation
			Rajtova	Amphibia Jaylet
		CHONDROGENESIS		Arachnida Tempelaar
		see Cartilage		Mammalia Franchi
		CHORDA		karyotype
		see Notochord		Insecta Ribbert
		CHORION		Mammalia Fraser
		see Placenta		
		see also Embryonic membranes		

lampbrush		CIRCULATION	environmental factors
Amphibia	Barsacchi Batistoni Bucci Lacroix Loones Mancino Nardi Raggianti	see also Vascular System; specific organs, etc.	Mammalia Clegg
molecular biology		Aves Pexieder	experimental study
Aves	Jandieri	Mammalia Nie	Amphibia Lefresne
Mammalia	Tumanishvili		Namur
	Jandieri		Selman
muscle	Tumanishvili	CLEAVAGE (& morula, blastula)	Gastropoda Jura
Mammalia	Bachmann	see also Blastocyst;	Mammalia Niemierko
oogenesis		Blastoderm; Blastodisc	Opas
Gastropoda	Mancino		
polytene		Aves Bellairs	initial phase
Angiosp	Cionini	abnormalities	Amphibia Aimar
Insecta	Beyse	Gastropoda Boon	irradiation
	Dennhofer	biochemistry	Mollusca Labordus
	Frey	biophysics	
	Maehr	Amphibia Rott	membrane
	Ribbert	Teleostei Rott	Asciidae O'Dell
	Seydewitz	blastula Echinoidea Vittorelli	Echinoidea O'Dell
protein		cell coat Amphibia Geuskens	Gastropoda Wal
Amphibia	Duprat	cell communication Amphibia Rott	Insecta Haget
Homo	Serman	Amphibia Teleostei Rott	microcinematography
puffs		cell contact Gastropoda Meshcheryakov	Nematoda Wyss
Insecta	Ashburner	Mollusca Wal	mitosis regulation
	Dennhofer	cell interactions Echinoidea Biggelaar	Echinoderm Petzelt
	Ish	cell surface Amphibia Tencer	molecular biology
	Kroeger	Gastropoda Dohmen	Asciidae De Leo
	Leenders	Mammalia Surani	morphology
	Lubsen	chronology Mollusca Biggelaar	Mammalia Kühnel
	Vossen	control Echinoidea Monroy	neurotransmitters
regeneration		culture in vitro Mammalia Snow	Echinoidea Buznikov
Turbellaria	Deri		Shmukler
sex			pattern
Mammalia	Burgoyne		Echinoidea Czihak
spermatozoa			spindle-cortex reactions
Echinoidea	Geraci		Gastropoda Meshcheryakov
teratogenesis			spiral
Homo	Testa	chronology Mollusca Biggelaar	Gastropoda Meshcheryakov
Mammalia	Horvath	control Echinoidea Monroy	symmetry
ultrastructure		culture in vitro Mammalia Snow	Gastropoda Meshcheryakov
Homo	Geneix		transcription
	Jaffray		Teleostei Kafiani
Mammalia	Malet		Kostomarova
W	Morin	cycle Amphibia Rott	ultrastructure
Insecta	Traut	Crustacea Lassegues	Amphibia Geuskens
X-inactivation		Echinoidea Buznikov	Selman
Mammalia	Gardner		Christ
	Lyon	Teleostei Markova	Jacob
	Monk	cytokinesis Shmukler	Dohmen
	Surani	Amphibia Rott	Fioroni
Y			
Insecta	Glatzer	cytophotometry Crustacea Lassegues	CLOACA
	Hess		see Urogenital system
	Johannisson		
	Kunz		CLONE(S)
	Mischke		see Asexual reproduction;
	Schafer		Cell(s); Cell heredity
	Schwochau		
YO lethality			COELOM
Mammalia	Burgoyne		see Body cavities
CILIA			COLCHICINE
Echinoidea	Gustafson		see Antimitotic agents
CINEMICROGRAPHY			COLLAGEN
see Microcinematography			
			Asciidae Patricolo
			Aves Robert
			Echinoidea Pucci
			Toneby
			Mazzucco
			Moczar
			Robert
			Van Gansen
			Robert

COLOUR PATTERNS
see Chromatophore(s);
Pigmentation)

COMPETENCE (inductive)

Amphibia Chibon
Johnen

CONGENITAL MALFORMATIONS
see Malformations

CONNECTIVE TISSUE
see also Fibroblast(s)

Aves Christ
Jacob
Homo Dylevsky
Mammalia Csaba
Turbellaria Luke
Pedersen

CORPUS ALLATUM

CORPUS LUTEUM

Mammalia Colombo
Torres

CORTEX
see Cell(s); Egg(s)

CORTISONE
see also Steroids

Amphibia Hanke
Aves Gasc
Mammalia Mercier
Milkovic
Paunovic
Peruzovic
Teleostei Hanke

CRANIUM
see Skull
see also Chondrocranium

CRYPTOBIOSIS
see Diapause

CULTURE &
PRESERVATION
(embryo, etc.)
see also Rearing methods;
Transfer

Cestoda Smyth
Spermatoph Chandra
asexual reproduction
Angiosp Reuveni
blastocyst
Mammalia Flechon
Torres
blastoderm
Aves Vakaet
bud
Angiosp Haccius
callus
Angiosp Harry
Harte
Heszky
Jelaska
Ly
Pierik

Gymnosp
defined medium
Fungi
early embryo
Mammalia

embryo
Angiosp
Aves

Gastropoda
Mammalia

Porifera
embryo from single cell
Angiosp
embryogenesis
Angiosp
Spermatoph
embryooid
Angiosp

Guignard
Haccius
Harry
Ly
Mestre

embryonic membranes
Mammalia Wrba
endocrinology
Mammalia Buckley

environmental factors
Angiosp
freezing
Amphibia Gallien
Mammalian Flechon
Whittingham

fruiting body
Fungi
gametophyte
Gymnosp
haploids
Angiosp

implantation
Mammalia Monk
larval stages
Crustacea Williamson
malformations
Mammalia Wrba
organogenesis
Angiosp

placenta
Homo Baker
preservation
Angiosp
storage
Mammalia Brand
Whittingham

tissue
Angiosp

CYCLIC AMP
see Nucleotides

CYST & ENCYSTMENT

Chlorophyc
Ciliata
Dinophyc
Rhizopoda

Rohr

Wood

Czolowska
McLaren

Monnier
Deleanu
Lucey
Prelipceanu

Vela
Buckley
Buehr
Glenister

McLaren
New
Steele
Webb

Zeilmaker
Korotkova

Jelaska

CYTOCHALASIN
see Antibiotics

CYTOGENETICS

Acrasiales
Amphibia

Labrousse
Zaborski
Heszky

Capalnasan
Czapska
Polani
Salamatina

Tosici

Mammalia Polani

CYTOTOLOGY
see Cytogenetics

CYTOSTATIC AGENTS
see Antimitotic agents

CYTOTOXIC AGENTS
see Drugs

DEDIFFERENTIATION
see also Metaplasia

Amphibia Burgess
Harrebomee
Modak
Yamada

Annelida Boilly

Ciliata Kink

Polychaeta Fontes

Thouveny

DEOXYRIBONUCLEIC ACID
see also Nucleic acids

cDNA Jones

cell cycle Gotzos

Aves Homo Gotzos

cell differentiation Jacob

Amphibia Jacob

cell fusion Luger

Aves Mammalia Luger

chloroplast Euglenophyc Heizmann

cloning in E. coli Artavanis

Insecta Jandieri

control by other substances Tumanishvili

Aves Jandieri

Mammalia Jandieri

Tumanishvili

early stages Scherer

Aves Insecta Schnetter

Teleostei Kafiani

Kostomarova

effect of endonuclease Ficq

Amphibia

embryo

Echinoidea Tosi

endocrinology		synthesis	neural plate	
Mammalia	Goswami	Aves	Amphibia	Beetschen
extrachromosomal		Echinoidea	De Petrocellis	ooplasmic segregation
Insecta	Kloc		Parisi	Mollusca
eye	Matuszewski		Vittorelli	Dongen
Chondrostei	Baburina	Insecta	De Turenne	organ primordia
	Mitashov	template activity		Amphibia
		Amphibia	Ficq	Woellwarth
Mammalia	Stroeva	thalidomide intercalation		regeneration
	Panova		Fickentscher	Insecta
fibroblast	Stroeva	transcription		Bulliere
Aves	Musy	Acrasiales	Rickwood	relation to cell cycle
heart		Amphibia	Crippa	Amphibia
Insecta	Jensen		Geuskens	Sladecek
hematopoiesis	Gazaryan	Aves	Hanocq	stability
Aves	Modak		Gazaryan	Insecta
histone coding	Birnstiel	Echinoidea	Imazuimi	Bernard
Echinoidea		Eumycetoz	Scherrer	transdetermination
imaginal disc		Insecta	Therwath	Insecta
Insecta	Egberts		Tiedemann	trophoblast
	Mischke	Mammalia	Spinelli	Mammalia
	Vijverberg	Rhizopoda	Sauer	Alexandre
in chromatin fractions		Teleostei	Sekeris	Denker
Insecta	Schmidt		Traut	tumour
induction		Mammalia	Van Gansen	Mammalia
Teleostei	Vahs	Rhizopoda	Jantzen	Evans
irradiation		Teleostei	Kafiani	DEVELOPMENT(general)
Arachnida	Tempelaar		Kostomarova	see also Asexual reproduction;
Aves	Beaupain	transcription &		Life cycle(s); Morphogenesis
kidney	Gasc	translation		
Aves		Aves	Tiedemann	Arachnida
methylation		Insecta	Bode	Asciadiacea
Echinoidea	Tosi	Rhizopoda	Jantzen	Brachiopoda
mitochondrial				Cephalop
Asciadiacea	De Leo	DETERMINATION		Cetacea
Echinoidea	Rinaldi	(embryonic)		
nucleolus		see also Induction;		Cladocera
Amphibia	Angelier	specific organs, etc.		Bettanin
oocyte		translation		Della Croce
Amphibia	Angelier	Aves	Tiedemann	Coleoptera
oogenesis		Insecta	Bode	Meer
Amphibia	Ficq	Rhizopoda	Jantzen	Copepoda
	Grippo			Terpilowska
Insecta	Kloc	DETERMINATION		Baxter
	Matuszewski	(embryonic)		Decapoda
ovary		see also Induction;		Diptera
Insecta	Nagl	specific organs, etc.		Ectoprocta
	Ribbert	translation		Mammalia
redundant		Aves	Tiedemann	Mesozoa
Mammalia	Jones	Insecta	Bode	Oligochaeta
regeneration		Rhizopoda	Jantzen	Phoronidea
Amphibia	Anton			Polychaeta
Oligochaeta	Mouton	biochemistry		Teleostei
Polychaeta	Fontes	Amphibia	Tiedemann	Trematoda
	Mariley	Insecta	Lallier	Urodela
repair		Insecta	Kuthe	biophysics
Homo	Giannelli	cellular		Insecta
Mollusca	Labordus	Amphibia	Duprat	Briegleb
replication		Insecta	Gehring	Neubert
Insecta	Halfer	culture in vitro	Duprat	descriptive study
	Ribbert	Amphibia		Cestoda
ribosomal		early embryo	Gardner	Bazitov
Amphibia	Birnstiel	Mammalia		effect of pollutants
	Ficq	experimental study	Weideli	Teleostei
Insecta	Hanocq	Insecta		Ozoh
satellite	Kunz	gastrulation		effect of prenatal retardation
Amphibia	Bailly	Aves	Leikola	Mammalia
Insecta	Kunz	genetics	Nöthiger	Lansdown
silk gland		Insecta	Dubendorfer	endocrinology
Insecta	De Turenne	imaginal disc	Ivanov	Vertebrata

pollution		coremia & rhizomorphs	shell
Teleostei	Heesen	Fungi	Dinophyc
protein turnover	Paskin	culture in vitro	Rhizopoda
ultrastructure		Angiosp	Netzel
Insecta	Priester	cytology	Netzel
Porifera	Efremova	Fungi	transformation
DEVELOPMENT (larval)		effect of glucose	Rhizopoda
see also Polymorphism		Acrasiales	O'Dell
(insects)		embryo	Preston
Asteroidea	Kasyanov	Angiosp	ultrastructure
Brachiopoda	Franzen	enzymes	Chlorophyc
Brachyura	Ingle	Angiosp	Kiermayer
Bryozoa	Strom	Fungi	
Copepoda	Lescher	fruiting body	
Crustacea	Castel	Fungi	
	Fincham	fusion of strains	
Decapoda	Ngoc	Myxomyctes	
Echinoidea	Kruchkova	geotropism	
	Ryberg	Angiosp	Gulluni
Ectoprocta	D'Hondt	heterocyst spacing	Santoro
Entoprocta	Franzen	Cyanophyc	Wilcox
Gastropoda	Thiriot	hormones	
Heteronemertea	Cantell	Angiosp	Phillips
Hymenoptera	Schmidt	hyphae	
Isoptera	Truckenbrodt	Fungi	Wessels
Lamellibr.	Kulikova	Acrasiales	Hames
	Le Roux	Angiosp	Rickwood
	Lucas	physiology	Cionini
Orthoptera	Prieur	Angiosp	Cionini
Pogonophora	Schmidt	Fungi	Heszky
Polychaeta	Jagersten	protozoa	Mestre
Prosobranchia	Cazaux	Musci	Moore
Thysanura	Giese	relation with cell wall	Bopp
behaviour	Larink	Fungi	Sietsma
Invertebr.	Muller	sporophore	
biochemistry		Fungi	Hammond
Echinoidea	Immers	stimulation by oscillation	Moore
Insecta	Rembold	Acrasiales	Wurster
comparative study		transition yeast-mycelium	Willetts
Invertebr.	Jagersten	Fungi	
growth		tropism	
Amphibia	Fox	Angiosp	Guillemonat
morphology			Neville
Prosobranch	Fretter		Phillips
physiology		ultrastructure	
Prosobranch	Fretter	Acrasiales	Hohl
trochophora		Fungi	Hohl
Annelida	Heimler	DEVELOPMENT (post-	
trochophora-like		embryonic, fetal)	
Coelomata	Heimler		
ultrastructure		Acarina	Cassagne
Amphibia	Fox	Araneida	Bonaric
DEVELOPMENT (plant: general)			Emerit
	Simola	Homo	Legendre
	Street		Gennser
Musci		DEVELOPMENT (uni-	
autotrophism		cellular organisms:	
Angiosp		general)	
biochemistry			
Fungi	Hammond	biochemistry	
	Sietsma	Rhizopoda	O'Dell
	Willets		Preston
callus induction	Wood	molecular biology	
		Rhizopoda	Jantzen

cell fusion		effect of collagen		regeneration	
Aves	Luger	Mammalia	Mazzucco	Amphibia	Burgess
Mammalia	Luger	embryooid		Annelida	Harrebomée
cell surface		Angiosp	Guignard	Polychaeta	Boilly
Aves	ap Gwynn	endocrinology		Turbellaria	Fontes
cellular	Chiquet	Insecta	Bulliere		Baguna
Acrasiales	Durston	entropy	Egberts		Chandebois
	Gerisch	Hydrozoa			Le Moigne
Amphibia	Chibon	Mammalia	Kucias	relation to cell division	
	Duprat	enzymes	Kucias	Amphibia	Brugal
	Hoperskaya	Insecta	Hansen	Mollusca	Biggelaar
	Landstrom	Mammalia	Adamson	satellite DNA	
	Lovtrup	experimental study		Insecta	Kunz
Angiosp	Dexheimer	Acrasiales	Konijn	skeleton	
	Harry	Amphibia	Duncan	Aves	Thorogood
	Street	Insecta	Weideli	specific states	
Aves	Flint	Mammalia	Konyukhov	Vertebrata	Horder
	Meller		Sazhina	stability	
Crustacea	Puelles	histoblast		Amphibia	Hoperskaya
Gastropoda	Kondo	Insecta	Bautz	state	
Hydrozoa	Fioroni	histochemistry		Aves	McKenzie
Insecta	Kucias	Insecta	Sprey	subcellular components	
Mammalia	Gehring	imaginal disc		Insecta	Molen
	Adamson	Insecta	Dewes	teratoma	
	Bulmer		Egberts	Mammalia	Salaun
	Konyukhov		Guillermet	teratoma in vitro	
	Kucias		Lafont	Homo	Graham
	Mazhuga			Mammalia	Adamsen
	Mazzucco				Graham
	Meller	immunochemistry			Papaioannou
	Peel	Acrasiales	Gerisch	theoretical study	
	Sazhina	irradiation		Zotin	
	Surani	Amphibia	Peters	transformation	
	Soltynska	mechanism		Amphibia	Landstrom
Trematoda	Chandebois	Mollusca	Geilenkirchen		Lovtrup
Turbellaria		meristem		tumour	
chromosomes		Angiosp	Clowes	Homo	Rousseau
Amphibia	Signoret	mesoderm		Mammalia	Evans
cleavage		Amphibia	Belousov	ultrastructure	
Mammalia	Snow		Kurrat	Amphibia	Jacob
coat pattern		Aves	Belousov		Vahs
Mammalia	Hornby		Mauger	Aves	Christ
connective tissue		metamorphosis			Jacob
Aves	Christ	Amphibia	Turner	Gastropoda	Fioroni
	Jacob	molecular biology		without cleavage	
culture in vitro		Amphibia	Modak	Polychaeta	Brachet
Amphibia	Duprat		Burgess		
Angiosp	Bopp	Insecta	Jacobi	DIGESTIVE TRACT	
	Harte	mutant cell	Hansen	see also specific parts	
Cestoda	Street	Aves	Flint		
Insecta	Smyth	neural crest	Hach	Amphibia	Albert
	Barigozzi	Aves			Cambar
Mammalia	Bulliere	neural crest cells	Le Douarin		Lestage
cyst	Wrba	Aves	Teillet	Ascidiae	Burghel
Ciliata	Kink			Aves	Harrisson
cytochemistry		neuroblastoma		Mammalia	Harrisson
Arachnida	Pijnacker				Morris
Insecta	Pijnacker			Phoronidea	Emig
digestive tract					
Amphibia	Albert	ooplasmic segregation	Augusti	DISAGGREGATION	
early embryo		Mollusca	Dongen	see Cell(s)	
Aves	McKenzie	photomorphogenesis	Angiosp		
Mammalia	Crnek		Wellmann	DORMANCY	
	Hofman	potency		see also Diapause	
	Levak	Insecta	Barigozzi		
	Skreb	potential		Angiosp	Linskens
	Svajger	Homo	Rousseau		Neville
Mollusca	Biggelaar	Hydrozoa	Schmid		
ectoderm		protein turnover			
Amphibia	Engländer		Paskin		

DRUGS (& other biologically active chemicals)		perphenazine	Ascidiae	D'Anna
see also specific classes of agents (Antimitotic agents etc.); Teratogenesis; Thalidomide; Pesticides		Mammalia	Echinoidea	Cognetti
alcaloids		phenobarbital	Insecta	Papillon
Aves	Schowing	Mammalia	Mammalia	Alexandre
Mammalia	Mercier	psychotropic	Polychaeta	Dhainaut
	Schowing	Mammalia	Teleostei	Pays
anticonvulsant	Tuchmann	relaxant	biophysics	Whittingham
Mammalia	Mercier	Aves	Mammalia	
barbiturates	Tuchmann	Mammalia	carcinogenesis	
Aves	Ojeda	Turbellaria	Mammalia	Elbling
clofibrate	Mammalia	strychnin	chromosomes	
	Nyitray	Amphibia	Mammalia	Franchi
	Szaszovszky		comparative study	
cyclophosphamide		teratogenesis	Homo	Gaillard
Homo	Brun	Aves	cortex	
Mammalia	Brun	Jelinek	Mammalia	Flechon
effect on breathing		Mammalia	cortical granules	Opas
Homo	Gennser	Jurand	Teleostei	Scriba
effect on early embryo		Ojeda	culture in vitro	
Aves	Doskocil	Dostal	Amphibia	Baltus
effect on embryo		Druga		Colombo
Amphibia	Sala	James		Hanocq
effect on fertility		Jelinek		Stegner
Mammalia	Tuchmann	Jurand		Zeilmaker
effect on fetus		Mercier		Alexandre
Mammalia	Tuchmann	Nyitray		Elbling
effect on heart		Shoro		Kaufman
Mammalia	Charbonne	Szaszovszky		Stegner
	Perissel	Thesleff		Szollosi
effect on implantation		test		Szollosi
Homo	Jiricka	Aves	cytochemistry	
Mammalia	Jiricka	Mammalia	Amphibia	Steinert
effect on neural tube		Jelinek		Ubbels
Aves	Jurand	Dostal		Martinek
Mammalia	Jurand	Jelinek		Martinek
effect on placenta		theophylline		
Homo	Jiricka	Mammalia	cytology	Peaucellier
Mammalia	Jiricka	France	cytoplasm transplantation	
effect on regeneration		veratrum	Amphibia	Ubbels
Aves	Balakhonov	Amphibia	cytoplasmic localisation	
Mammalia	Joseph	Gulluni	Gastropoda	Dohmen
ethacrynic acid		Santoro	cytoplasmic segregation	
Mammalia	France		Amphibia	Ubbels
hypolipidemic		EAR	devel. after activation	
Mammalia	Szaszovszky	see Auditory organ	Mammalia	Whittingham
immunodepressors		(& external ear)	effect of benzopyrene	
Aves	Balakhonov	ECTODERM	Amphibia	Ceas
LSD		see Embryology (experimental); Embryology (general & descriptive)		
Mammalia	Muller	EGG(S)	Polychaeta	Peaucellier
mutagenesis		see also Blastocyst; Cleavage; Culture & preservation; Fertilization; Gradient; Oogenesis; Transfer (blastocyst, etc.); Yolk	Insecta	effect of enzymes
Mammalia	James	actin	Ascidiae	Papillon
neuroleptic		aging	Amphibia	
Mammalia	Mercier	Mammalia	Colombo	
	Tuchmann	Teleostei	Doree	
neuromuscular blocking		albumen	Asteroidea	
Mammalia	Shoro	Aves	Guerrier	
neuropharmacra		architectural development	Teleostei	Doree
Homo	Challier	Insecta	Guerrier	
	Guerre	atresia	Vertebrata	Colombo
	Nandakumaran	Mammalia	energy reserve	Antila
neurotoxic	Baumgarten	autoradiography	Teleostei	
Mammalia		Gastropoda	Kamler	
neurotropic				
Aves	Jurand			
Mammalia	Jurand			
nucleic acid blocking				
Mammalia	Raedler			

germinal vesicle		metabolism		temperature	
Amphibia	Aisenstadt	Mammalia	Zeilmaker	Insecta	Papillon
	Skobrina	Polychaeta	Peaucellier	teratogenesis	
Chondrostei	Aisenstadt	microcinematography		Mammalia	Elbling
	Skobrina	Amphibia	Hara	ultrastructure	
glycerinated		molecular biology		Amphibia	Billett
Gastropoda	Meshcheryakov	Amphibia	Hanocq		Guyot
immunology			Muller		Steinert
Teleostei	Apekin		Thomas		Ubbels
inductive substances		Asciidae	Farinella	Asciidae	La Spina
Echinoidea	Horstadius	Echinoidea	Mansueto	Cephaloch	De Leo
ion distribution		Insecta	Giudice	Ctenophora	De Leo
Amphibia	Dick		Nagl	Gastropoda	Bottke
irradiation		neurotransmitters		Homo	Martinek
Insecta	Zissler	Amphibia	Ubbels		Stegner
Mammalia	Franchi	Asciidae	Falugi	Insecta	Perkowska
maturation		Echinoidea	Minganti		Went
Amphibia	Aisenstadt	nucleo-cytopl. interact.	Falugi	Mammalia	Zissler
	Baltus	Amphibia	Minganti		Kassner
	Chulitzkaya	Chondrostei	Skobrina		Martinek
	Colombo	Teleostei	Skobrina		Stegner
	Dettlaff			Polychaeta	Wabik
	Feulgengauer	nucleolinus			De Leo
	Hanocq	Mollusca	Bolognari		Dhainaut
	Hubert	nucleus		vitelline membrane	
	Pays	Gastropoda	Bolognari	Mammalia	Whittingham
	Skobrina	oocyte			
	Steinert	Amphibia	Billett	EGG COVERINGS	
Chondrostei	Stepanov		Hanocq	Insecta	Barbier
	Aisenstadt		Muller	Oligochaeta	Farnesi
	Chulitzkaya		Thomas		Tei
	Dettlaff		Van Gansen	Opisthobr	Kress
	Feulgengauer	Asciidae	D'Anna	Teleostei	Bouvet
	Ginsburg	Cephaloch	De Leo		Hagenmaier
	Skobrina	Echinoidea	Cognetti		Riehl
	Stepanov	Homo	Stegner		Rubtsov
Crustacea	Charniaux	Insecta	Perkowska	Turbellaria	Marinelli
Homo	Zeilmaker	Mammalia	Baker		Vagnetti
Mammalia	Alexandre		Franchi		
	Kaufman		Stegner		
	Szollosi		Zeilmaker		
Polychaeta	Peaucellier	Nematoda	Billett	EGG MEMBRANES	
Teleostei	Apekin	ooplasmic movement	Rzechak	see Egg coverings;	
	Colombo	Amphibia		Embryonic membranes	
	Ginsburg	ooplasmic segregation			
	Pays	Insecta	Schnetter	EGG SHELL	
	Skobrina	Mollusca	Dongen	see Egg coverings	
	Szollosi		Geilenkirchen		
maturation induction			Verdonk	ELECTRICITY	
Amphibia	Brachet	ooplasm transplantation		see Bio-electricity	
maturation promoting factor		Insecta	Schnetter		
Amphibia	Moreau	oviposition		ELEMENTS (chemical)	
Astroideia	Moreau	Insecta	Winkler	see Chemical elements	
meiosis		ovulation		EMBRYO-MATERNAL	
Amphibia	Doree	Homo	Baker	RELATIONSHIPS	
	Fidc		Marston	see also Placenta	
	Guerrier	Mammalia	Baker		
	Moreau		Marston	blastocyst	
Astroideia	Doree	Teleostei	Colombo	Mammalia	McLaren
	Moreau	physiology		diabetes	
Echinoderm	Guerrier	Mollusca	Geilenkirchen	Mammalia	Deuchar
Gastropoda	Bergerard	pigment		immunology	
	Bottke	Amphibia	Rzechak	Amphibia	Badet
Homo	Polani	resting			Chateaurey-
Mammalia	Polani	Crustacea	Bettanin	naud	naud
Polychaeta	Guerrier		Della Croce		Bulmer
meiosis induction	Peaucellier	surface			Chateaurey-
Angiosp	Linskens	Gastropoda	Dohmen		naud
Ascomyc	Croes	symmetry			McLean
Chlorophyc	Linskens	Amphibia	Nieuwkoop	maternal age	Peel
			Ubbels	Mammalia	Jones

maternal malnutrition	Bernocchi	cell division control	Albert
Mammalia	Fraschini	Amphibia	Albert
	Manfredi	endoderm-mesoderm interact.	
	Porcelli	Amphibia	Albert
	Redi	environmental factors	
	Scherini	Ascidiae	Farinella
nutrition		Mammalia	Surani
Mammalia	Auroux	Polychaeta	Peauzellier
psychogenous influences		fate map	
Mammalia	Bontekoe	Insecta	Schupbach
	Naaktgeboren	gamete age	
relation uterus-conceptus		Mammalia	Komar
Homo	Beier	germ layers	
Mammalia	Beier	Mammalia	Levak
transmission of substances			Skreb
Mammalia	Choroszewska		Svajer
	Morris	incompatibility	
	Panigel	Amphibia	Girard
	Pascaud	irradiation	
	Wild	Insecta	Zissler
ultrastructure		limb	
Mammalia	Glenister	Aves	Kieny
EMBRYO PRESERVATION		lithium	
see Culture & preservation		Amphibia	Koebke
EMBRYO TRANSFER		marginal zone	
see Transfer		Amphibia	Koebke
EMBRYOLOGY (experimental)		mesectoderm	
see also specific stages;		Aves	Lelievre
Determination; Gradients;		Amphibia	Belousov
Induction; Morphogenesis;			Hakim
Pattern formation; Regula-			Kurrat
tion			Belousov
Amphibia	Testa		Kieny
Araneida	Holm		Mauger
Coleoptera	Schnetter	mesoderm formation	
Collembola	Tamarelle	Amphibia	Boterenbrood
Diplopoda	Dohle		Hara
Gastropoda	Hess		Nieuwkoop
Homoptera	Korner	microcinematography	
Isopoda	Daguerre	Insecta	Went
Lepidoptera	Lassegues	molecular biology	
Oligochaeta	Legay	Amphibia	Wall
Polychaeta	Devries	morphogenetic potential	
Rodentia	Hofmann	Amphibia	Hakim
Vertebrata	Csaba	morphology	
axial patterns	Durand	Amphibia	Stanisstreet
Mollusca	Guerrier	Mammalia	Wilson
Polychaeta	Guerrier	muscle	
axis		Aves	Kieny
Aves	Stephan	neural crest cells	
biochemistry		Aves	Hach
Amphibia	Stanisstreet	nuclear transplantation	
biophysics		Insecta	Santamaria
Amphibia	Belousov	nucleo-cytoplasmic relations	
Aves	Belousov	Mammalia	Balakier
blastokinesis			Tarkowski
Insecta	Sander	potency	
blastomere		Aves	Tahka
Echinoidea	Vittorelli	relation to egg architecture	
cell aggregation		Insecta	Went
Amphibia	Smith	role of membrane	
cell contacts	Stanisstreet	Amphibia	Guerrier
Echinoidea	Moreau	Echinoderm	Guerrier
Mollusca	Moreau	Polychaeta	Guerrier

theoretical study	Bezem Raven	Mammalia	Billington Dillon Jenkinson Searle Sellens Smith Modlinski	cell surface Aves cholinesterase Mammalia early stages Mammalia electrolytes Aves endocrinology Mammalia enzymes Asciidiacea	Van Roelen Drews Kaufman Simkiss Kratochwil
tracer study		environmental factors	Coleoptera Delay Juberthie		
Mollusca	Guerrier	Rodentia			
Polychaeta	Guerrier				
triploid embryos					
Mammalia	Niemierko	microcinematography	Aves Lucey		
EMBRYOLOGY (general & descriptive)		normal table	Teleostei Urodela Periderm destructs shell		
see also specific stages;		Teleostei	Morgan Bozdilovsk.	Crustacea	Falugi Minganti
Development (general);		role of membrane	Bouvet	Echinoidea	Falugi Falugi
Organogenesis		Amphibia	Bluemink	Insecta	Dispiva
Acarina	Cassagne	segment	Louvet	histo- & cytochemistry	
Apterygota	Koscielski	Phasmida		Acoli	Pijnacker
Arachnida	Ehn	segmentation		Asciidiacea	Dolcemascolo
Araneida	Emerit	Brachiopoda	Siewing		Gianguzza
Artiodactyla	Legendre	Phoronidea	Siewing		Mancuso
	Knese	staging	Rodentia	Aves	Van Roelen
	Schmidt	ultrastructure	Amphibia	Insecta	Pijnacker
Asciidiacea	Torres	Amphibia	Duncan	Mammalia	Drews
Carnivora	Farinella		Guyot	interact. morphogen.-metab.	Ostromova
Cephaloch	Gulamhussein		Habrova	Echinoidea	Ostromova
Cephalop	Flood		Nedvidek	Hydrozoa	Ostromova
Chelonian	De Leo		Smith	molecular biology	
Cladocera	Ragozina		Stanisstreet	Amphibia	Darnbrough
Coleoptera	Bettanini		Anura		Geuskens
	Della Croce		Asciidiacea		Habrova
Collembola	Louvet		Gipouloux		Nedvidek
	Ressources		Dolcemascolo		McKenzie
	Krzysztofowicz		Gianguzza		Wylie
	Tamarelle		Mancuso		Czihak
Copepoda	Kohler		Aves		Gezelius
Diplopoda	Dohle		Bellairs		Giudice
Heteropt	Louvet		Christ		Iimmers
Homo	Menkes		Jacob		Pirrone
Hymenopt	Koscielska		Vakaet		Rinaldi
Isopoda	Daguerre		Collembola		Spinelli
Lacertilia	Lassegue		Tamarelle		Kaufman
Malacostr	Bons		Homo		metabolism
Notostraca	Zilch		Mammalia		Polychaeta
Orthoptera	Kohler		Crnek		Peaucellier
Pantopoda	Louvet		Skreb		parthenogenesis
Phasmida	Winter		Teleostei		Kaufman
Polychaeta	Louvet		Bouvet		tracer study
	Cazaux		Turbellaria		Asciidiacea
	Heimler		Le Moigne		Mansueto
Porifera	Alekseeva	EMBRYOLOGY (physiological & biochemical)			
Prosobranch	Giese	see also specific stages;			
Rodentia	Czolowska	Development; Energy;			
	Mystkowska	Metabolism; Nutrition;			
	Ozdzenski	Respiration, etc.			
body form	Peters				
Teleostei	Tcherniae				
Turbellaria	Koscielski				
Cetacea	Pilleri				
comparative study					
Asciidiacea	Ivanova	Echinoidea	Minganti	adventitious embryo	
Hymenopt	Woyke	Homoptera	Sander	Angiosp	Haccius
culture in vitro		Rodentia	Csaba	antipodal	
Aves	Lucey			Angiosp	Turala
Mammalia	Steele	biochemistry		biochemistry	
early stages		Amphibia	Melehova	Angiosp	Ryczkowski
Aves	Christ	Asciidiacea	D'Anna	comparative study	Street
	Jacob	Aves	Dubois	Angiosp	Ly
	Rostedt	Crustacea	Hultin	culture in vitro	
Coleoptera	Schnetter	Echinoidea	Bäckstrom	Angiosp	Erdelska
Collembola	Jura		Brachet	Angiosp	Pretova
Crustacea	Dohle		De Petrocellis	Angiosp	Street
			Parisi	histo- & cytochemistry	
			Pucci	Angiosp	Nagl
		Hydrozoa	Muller	effect of substances	
		Insecta	Artavanis	Angiosp	Pretova
		Mammalia	Johnson	embryo	
		biophysics		Angiosp	Ly
		Amphibia	Capuron	embryo culture	
				Angiosp	Monnier

embryo sac		teratogenesis	Marraro	Neubert
Angiosp	Erdelska	Aves		Olivereau
embryogenic potential		ultrastructure		Palladini
Angiosp	Jelaska	Homo	Calastrini	Woellwarth
experimental study			Hoyes	Gulluni
Gymnosp	Willemse			Harte
freezing injury		ENCYSTMENT		Phillips
Angiosp	Withers	see Cyst		Reveni
function of pigment		ENDOCRINE ORGANS		Sanfo
Angiosp	Pretova	see also specific organs;		Santoro
gametophyte in vitro		Hormones		Wellensiek
Gymnosp	Rohr			
haustorium		APUD cells		Chondrostei
Angiosp	Vannereau	Aves	Fontaine	Davidova
hormones			Harrison	Dettlaff
Angiosp	Alpi	Mammalia	Fontaine	Besse
ovule			Harrison	Castel
Angiosp	Ryczkowski			Legrand
phylogenesis		comparative study		Gymnosp
Angiosp	Ly	Mammalia	Harrison	Neumann
physiology				Insecta
Angiosp	Ryczkowski	cytology		Denne
seed sterility		Mammalia	Harrison	Briegleb
Angiosp	Turala			Delay
suspensor		Teleostei	Olivereau	Fourche
Angiosp	Alpi	Crustacea	Daguerre	Lees
ultrastructure		Cyclostom	Fernholm	Neubert
Angiosp	Cionini	enteroendocrine		Neumann
	Nagl	cells	Rombout	Degenhardt
	Ly	Teleostei		Herman
	Nagl	function		Muller
	Street	Homo	Stark	Surani
	Vannereau	Mammalia	Stark	Peaucellier
Gymnosp	Willemse	histochemistry		Zusman
EMBRYOMA(S)		Teleostei	Olivereau	Braum
see Teratoma(s)		histogenesis		Kamler
EMBRYONIC FLUIDS		Amphibia	Hanke	Zaitzev
see Embryonic membranes		morphology		Marinelli
EMBRYONIC MEMBRANES		Homo	Stark	Palladini
(& fluids)		Mammalia	Stark	Tei
Reptilia	Bellairs	neurosecretory		
allantois		organs		ENZYME(S)
Aves	Marraro	Crustacea	Herp	
amnion			Strolenberg	
Mammalia	France	Insecta	Ramade	
chorioallantois		pharyngeal pouches		
Aves	Simkiss	Homo	Jarzab	
chorion				
Homo	Durst	physiology		
	Hoyes	Amphibia	Olivereau	
effect of chemicals		Teleostei	Olivereau	
Mammalia	France	ultrastructure		
enzymes		Homo	Groscurth	
Homo	Gennser	Insecta	Hardie	
fluids		Mammalia	Groscurth	
Homo	Gebhardt			
	Gennser	ENDODERM		
	Shoro	see Embryology (experi-		
Mammalia	France	mental); Embryology		
function		(general & descriptive)		
Mammalia	Kuhnel	ENERGY (developmental)		
histochemistry				
Mammalia	Kuhnel	Hydrozoa	Kucias	
in vitro		Mammalia	Kucias	
Mammalia	Wrba		Zeilmaker	
malformations		ENTEROCHROMAFFIN		
Aves	Jelinek	CELLS		
physiology		see Chromaffin cells		
Aves	Simkiss	ENVIRONMENTAL		
		FACTORS		
		see also Adaptation; Pollutants;		
		specific physical agents		
		Amphibia	Bondi	carbohydrate metabolism
			Briegleb	Gastropoda
				cell cycle
				Mammalia
				Wijk

cholinesterase		induction		protease
Ascidiaeae	Falugi	Aves	Eliasson	Mammalia
	Minganti	Homo	Eliasson	Polychaeta
Aves	Meiniel	intestinal tract	Haffen	regulation
Crustacea	Raineri	Mammalia	GUILLET	Insecta
Echoidea	Falugi	isoenzymes	Korochkin	related to plant
	Minganti	Amphibia	Leibenguth	Angiosp
Homo	Navaratnam	Insecta	Steinmetz	repression
Mammalia	Adamson	Mammalia	Adinolfi	Homo
dehydrogenase	Navaratnam	kinases		reproduction
Aves	Croisille	Aves	Eppenberger	Hydrozoa
	Rinaudo		Smith	ribonuclease
Insecta	Duke	Insecta	Eppenberger	Rhizopoda
Mammalia	Adinolfi	Mammalia	Adamson	RNAse
detoxicating	Duke	Teleostei	Eppenberger	Aves
Aves	Dutton	LDH		sexual morphogenesis
	Wishart	Amphibia	Korochkin	Fungi
Homo	Campbell	lipid metabolism		silk gland
	Dutton	Homo	Rooy	Insecta
	Wishart	Mammalia	Rooy	sporophore
Mammalia	Campbell	lipogenic		Fungi
	Dutton	Mammalia	Mayer	steroid
	Wishart	liver		Amphibia
development		Mammalia	Vetterlein	sulphatase
Homo	Benson	lung		Aves
	Fensom	Aves	Dameron	synthesis
Hydrozoa	Muller		Marin	Aves
differentiation		Mammalia	Dameron	synthetase
Angiops	Mader	lysosomal	Marin	Echinoidea
Insecta	Hansen	Amphibia	Steinert	teratogenesis
	Rembold	Insecta	Russo	Aves
Mammalia	Parsons	lysozyme		transferase
digestive tract		Homo	Adinolfi	Mammalia
Amphibia	Lestage	mesenchyme		uterus
DNA synthesis		Aves	Knese	Mammalia
Turbellaria	Le Moigne	Mammalia	Knese	wound healing
early embryo		metabolic		Homo
Aves	Vakaet	Mammalia	Walker	
ecdysone metabolism		mitochondrial		Makinen
Insecta	Koolman	Mammalia	Mayer	Raekallio
egg		morphogenesis		Makinen
Gastropoda	Albanese	Mammalia	Wegmann	Raekallio
	Bolognari	multimolecular		
	Zaccone	Homo	Chalumeau	Amphibia
embryo	D'Anna	Mammalia	Chalumeau	Aves
Ascidiaeae		odontoblastic	Linde	Insecta
Insecta	Duspiva	Mammalia		
esterase		oogenesis	Grippo	EPIDERMIS
Aves	Croisille	Amphibia		
extracellular		oxidase	Duke	Aves
Fungi	Wood	Insecta	Duke	Croisille
eye lens		Mammalia		Gasc
Aves	Brahma	pathology		Gumpel
	Starre	Homo	Chalumeau	
fetal in tumour		Mammalia	Chalumeau	EPIDIDYMIS
Mammalia	Raftell	peroxidase	Linde	
function		Angiops	Mader	Aves
Homo	Chalumeau	Insecta	Jensen	Croisille
Mammalia	Chalumeau	phosphatase		Gasc
genetics		Aves	Rinaudo	
Amphibia	Beetschen	Crustacea	Raineri	Insecta
	Gasser	photomorphogenesis	Mohr	EPITHELIAL-MESENCHYMAL
	Jaylet	Angiops		INTERACTIONS
Homo	Schloot	Insecta		see also Induction
Insecta	Leibenguth	polymerase		
hydroxylase		Homo	Thiery	Mammalia
Aves	Rinaudo	Mammalia	Mohallal	Abrunhosa
imaginal disc		Eumycetoz		Kratochwil
Insecta	Lafont	Polychaeta	Sauer	culture in vitro
in explants			Marilley	Mammalia
Mammalia	Parsons			Lawson
				embryonic & cancer cells
				Homo
				Mammalia
				Propper
				Propper
				ganglion
				Aves
				Cochard

heterospecific		EXTRACELLULAR MATRIX	endocrinology
Aves	Propper	see Matrix	Insecta
Mammalia	Propper		environmental factors
limb			Teleostei
Aves	Gumpel	EXTRA-EMBRYONIC	Wise
lung		MEMBRANES	enzymes
Aves	Beccetti	see Embryonic membranes	Amphibia
	Calastrini		Aves
	Carinci	EXTREMITIES	experimental study
	Dameron	see Limb(s); Wing(s)	Aves
	Marin		
	Stabellini	EYE(S)	Insecta
Mammalia	Dameron	see also Eye lens	Mammalia
mammary gland	Marin		
Homo	Propper	Amphibia	Korochkin
Mammalia	Propper	Arthropoda	Rinaudo
skin		Mammalia	
Aves	Beccetti	Lopashov	Clayton
	Carinci	Wada	de Pomerai
	Stabellini	Pilleri	Lucey
skin & ganglia			Pritchard
Aves	Saxod	Aves	Such
	Verna	Janssen	Clayton
Mammalia	Saxod	Meller	de Pomerai
tooth		Starre	Lucey
Mammalia	Karcher	Meller	Pritchard
	Ruch		
	Thesleff	Mammalia	eyelids
tumour		biochemistry	Homo
Vertebrata	Tarin	Amphibia	Ross
wing			genetics
Aves	Amprino	Aves	Amphibia
wound healing		Jitashov	Vahs
Aves	Thevenet	Sviridov	Insecta
EPITHELIUM			Mammalia
Amphibia	Hartwig	Aves	Egelhaaf
Aves	Dameron	Janssen	Campos
	Marin	Robert	Osirov
	Middleton	Starre	Theiler
Mammalia	Passaponti	Robert	Truslove
	Anderesen	Starre	Vakhrusheva
	Beck	Robert	Vahs
	Dameron	Mikhailov	
	Fejerskov		Teleostei
	Joseph	Mammalia	glia
	Mandysova		Insecta
	Marin	Vertebrata	growth
	Middleton	cell adhesion	Mammalia
	Sevcenko	Aves	Panova
		cell differentiation	Stroeva
EQUIPMENT		Aves	histo- & cytochemistry
see Methods		Puelles	Amphibia
ERYTHROCYTES		Aves	Vahs
see Blood		Puelles	Mammalia
ERYTHROPOEISIS		cell transformation by retina	Teleostei
see Hematopoiesis		Amphibia	Yamada
EVOLUTION		cell type control & change	Mammalia
see Phylogenesis		Amphibia	Lierse
EXCRETORY SYSTEM		choroid	Grun
see also Kidney(s); Urogenital system		Teleostei	Ramsay
Amphibia	Cambar	Mammalia	Vahs
	Gipouloux	Vertebrata	
	Girard	Amphibia	histology
Insecta	Le Garff	Insecta	Insecta
Phoronidea	Emig	Mammalia	immunochemistry
		Mammalia	Vertebrata
			induction
			Amphibia
		ciliary body	Lopashov
		Amphibia	Vahs
		Mammalia	
			Teleostei
			Vertebrata
		conjunctiva	Arachnida
		Aves	Munoz
		cornea	Pilleri
		Aves	Durand
		Mammalia	Vertebrata
		culture in vitro	Amphibia
		Amphibia	Modak
			Yamada
		Aves	Janssen
			Meller
		cornea	Starre
		Aves	Zacchei
		Mammalia	Tesch
			Akhabadze
		development	Meller
		Mammalia	Stroeva
		differentiation	Zacchei
		Amphibia	
		Arachnida	Clavert
		Chondrostei	
		Mammalia	Munoz
			Baburina
		effect of drugs	Mitashov
		Mammalia	Stroeva
			Raedler

morphogenesis		teratogenesis		fiber cell	
Insecta morphology	Mouze	Mammalia	Akhabadze	Aves	Appleby
Insecta mutant	Mouze	theoretical study	Stroeva		Modak
Insecta nauplius	Bouthier	Aves	Lindenmayer	genetics	
Crustacea nerve connections	Keith	Insecta	Lindenmayer	Mammalia	Malinina
neural retina	Tesch	ultrastructure		immunochemistry	Mikhailov
Amphibia	Korochkin	Amphibia	Dabagian	Vertebrata	
	Mitashov		Yamada	immunology	
	Sviridov		Munoz	Aves	Doorenmaalen
Aves	Jones	Arachnida	Meller	Homo	Starre
	Ruano	Aves	Baburina	Mammalia	Doorenmaalen
Chondrostei	Baburina	Chondrostei	Mitashov	induction	Platonov
	Mitashov		Stroeva	Aves	Doorenmaalen
optic cup	Stroeva	Insecta	Such		Karkinen
Vertebrata photoreceptors	Mikhailov	Mammalia	Tesch		Starre
Teleostei	Ramsay	Teleostei	Dabagian	Homo	Doorenmaalen
	Wise		Lierse	inductive substance	Hoperskaya
Tunicata physiology	Georges		Meller	Vertebrata	
Insecta pigment	Egelhaaf		Sievers	malformations	Hoperskaya
Insecta	Bouthier		Grun	Aves	Wakely
	Colln		Pietzsch	metaplasia	
	Egelhaaf		Ramsay	Amphibia	Lopashov
Mammalia	Lopashov		Wise	Vertebrata	Hoperskaya
Teleostei pigment epithelium	Sologub	cell division		molecular biology	
Amphibia	Mitashov	Mammalia	McAvoy	Aves	Modak
Chondrostei	Baburina	crystallins			Appleby
	Mitashov	Amphibia	Brahma		Modak
	Stroeva	Aves	Brahma		Appleby
Mammalia	Panova	Mammalia	Janssen		Modak
regeneration	Stroeva	culture in vitro	Starre		
Amphibia	Dabagian	Aves	McAvoy	FALLOPIAN TUBE	
	Korochkin	development	Malinina	see Oviduct	
	Mitashov	Aves	Platonov		
Teleostei retina	Sviridov	differentiation	Starre	FAT	
Amphibia	Campos		Ruano	see Adipose tissues; Lipid(s)	
Aves	Dabagian		Wakely		
	Lopashov			FAT BODY	
	Lindenmayer			see Adipose tissues	
Insecta Mammalia	Meller				
	Puelles			FATE MAPS	
	Zacchei			see Embryology (experimental)	
Teleostei	Lindermayer	epithelium			
	Lierse	Aves	Clavert	FATTY ACIDS	
	Lopashov		Modak	see Lipid(s)	
	Meller				
	Raedler			FEATHER(S)	
	Sievers				
	Sologub			Aves	Dhouailly
	Zacchei				Groenendijk
Vertebrata sclera	Grun	experimental study			Mauger
	Pietzsch	Aves			Sengel
	Sologub				
	Mikhailov			FECUNDITY	
Teleostei		Mammalia		see Fertility	
				FERTILITY (& sterility)	
Aves	Ambrosi			Crustacea	Pihan
Homo	Pilleri			Homo	Taillemite
synapse & terminal				Mammalia	Swanson
Teleostei	Grun				Zeilmaker
				FERTILIZATION	
				see also Membrane	
				Arachnida	Feiertag
					Pijnacker
				Crustacea	Zerbib
				Insecta	Pijnacker
				Mammalia	Edwards
					Kassner
					Modlinski

acrosome	Ginsburg	FETUS	effect of agents	Kaufman
Chondrost activation	Mansueto	see also Development (postembryonic, fetal)	Mammalia	
Asciidae	Surani	Homo	endocrinology	Lattaud
Mammalia	Whittingham	Mammalia	Oligochaeta	Durchon
artificial barrier	Cazaux	Taillemite	Polychaeta	Pfannenstiel
cell membrane	Linskens	Jacquot	gametogenesis	
Asciidae	O'Dell	Naaktgeboren	Angiops	Vannereau
Echinoidea	O'Dell	Aves	Arachnida	Mikulska
cortical reaction	Ginsburg	Beug	Chlorophyc	Koop
Chondrostei	Ginsburg	Gotzos	Equisetoph	Willémse
Mammalia	Opas	Knese	Gastropoda	Nowakowna
Teleostei	Ginsburg	McKenzie		
cytochemistry	Flechon	Musy	Gymnosp	Sembrat
Mammalia	Baker	Stenman	Tardigrada	Willemse
cytology	Baker	Vaheri	Teleostei	Bertolani
Homo	Ceas	Wartiovaara	Xanthophyc	Koshelev
Mammalia	Cusimano	Homo	genetics	Willemse
effect of benzopyrene		Knese	Homo	Beatty
Echinoidea		Richter	Mammalia	Beatty
egg aging		Mammalia	Oligochaeta	inhibition of protein synth.
Asciidae		Knese		Lattaud
endocrinology		Van Gansen	irradiation	
Homo	Baker	FIN(S)	Chondrostei	Chmilevsky
Mammalia	Baker	Teleostei		Faleeva
gamete fusion	Austin	Bouvet		Gureeva
Mammalia		FLAGELLA		Persov
general study		Rhizopoda	King	Sakun
Equisetoph	Willemse			Zubova
Gymnosp	Willemse	FLOWER(ING)	Teleostei	Chmilevsky
Xanthophyc	Willemse	Angiops	Lindenmayer	Faleeva
hybridization	Cusimano		Neville	Gureeva
Amphibia		FLUORESCENCE		Persov
in vitro		MICROSCOPY		Sakun
Homo	Baker	see also Immunology		Zubova
	Barnes		Amphibia	
	Zeilmaker	FLUORINE		Baker
Mammalia	Baker	see Chemical Elements		Roberts
	Barnes		Aves	Ambrosi
	Fraser	FOLLICLE (egg-)		Cochard
	Kaleta	see Ovary		Ebendal
microcinematography		FOLLICLE CELLS		Hedlund
Angiops	Erdelska	see		Lelievre
micropyle		MICROSCOPY		Mitolo
Mammalia	Szollosi	see also		Pannese
Teleostei	Szollosi	see		Roncali
molecular biology		see		Verna
Asciidae	De Leo	FREE-MARTINS		Sarrantino
physiology			Homo	Baker
Asciidae	De Santis	Aves		Cochard
	Monroy	Mammalia		Donkelaar
	Rosati	Lutz		Druga
Mammalia	Komar	Colenbrander		Navaratnam
ultrastructure	Villa	Jost		Benedetti
Asciidae	Flechon	FRUIT(ING)	Teleostei	
Mammalia		Angiops		GASTRULA(TION)
vitelline membrane		Bragt		
Mammalia	Whittingham	Ryczkowski	Amphibia	Johnen
zona pellucida	Flechon			Lohmann
Mammalia	Szollosi	GALL BLADDER		Lopashov
Teleostei	Szollosi	see Liver		Peters
FETAL FLUIDS			Aves	Leikola
see Embryonic membranes		GAMETES (& gametogenesis)	Insecta	Koscielska
FETAL MEMBRANES		see also Germ cells; Oogenesis;	Teleostei	Tumanishvili
see Embryonic membranes		Spermatogenesis etc.		
		Sporozoa	Sinden	GENE(S)
		ageing		see also Genetics; Mutants
		Mammalia	Fraser	
		biochemistry		action
		Mammalia	Johnson	
			Angiops	Harte
			Insecta	Ashburner
				Egelhaaf

activation		Mammalia	Csaba Herman Lyon Muller Csaba Csaba	liver proteins Mammalia	Goswami
Amphibia	MacLean	Protozoa	activ. of parental genomes	mapping Insecta	Bernard
Insecta	Lohmann	Turbellaria	Szollosi	maternal effect Amphibia	Beetschen Fernandez
activity	Ish			morphogen. field Ciliata	Jerka
Amphibia	Leenders			mosaics	
Fungi	Maehr			Amphibia	Boucaut
Insecta	Vahs	allophenes		Insecta	Janning
	Vries	Amphibia	Boucaut	Mammalia	Degenhardt
	Zantinge	brain			Deol
	Beyse	Mammalia	Osipov	muscle	
	Leibenguth		Vakhrusheva	Aves	
	Seydewitz	chloroplast			
Mammalia	Traut	Euglenophyc	Nigon		
Teleostei	Monk	clonal analysis			
amplification	Vahs	Insecta	Campos		
Amphibia	Ficq	determined state		Mammalia	
	Labrousse	Insecta	Bernard	neoplasm	
	Lohmann	differentiation		Insecta	
Insecta	Kunz	Mammalia	Konyukhov	nervous system	
	Schafer		Sazhina	Insecta	
control of early development		effect of environm. factors		Nematoda	
Gastropoda	Arnolds	Angiosp	Wellensiek	pattern formation	
dosage		effect of paternal genome		Insecta	
Amphibia	Cayrol	Szollosi		pleiotropy	
Insecta	Bernard	effect of weightlessness		Insecta	
expression		Insecta	Briegleb		
Amphibia	Cayrol		Neubert		
	Collenot	enzymes			
	Flavin	Amphibia	Beetschen		
	Gounon		Gasser		
	Gurdon		Jaylet		
Aves	Bogenmann	Homo	Schloo	proliferation	
	Knochel	Insecta	Duke	Mammalia	
Crustacea	Kondo		Leibenguth	Amphibia	
Insecta	Leibenguth	Mammalia	Steinmetz		
	Scheller		Duke		
Mammalia	Bogenmann	epigenetics	Lakshmi	regulation	
	Goswami		Sherbet	Insecta	
function			Duke		
Insecta	Lezzi	Insecta	Duke		
globin		Mammalia			
Amphibia	Flavin	eye			
Aves	Knochel	Insecta	Campos	selection	
Homo	Heizmann	Mammalia	Osipov	Insecta	Vreezen
lethal			Theiler	sex determination	
Amphibia	Collenot		Vakhrusheva	Insecta	Nöthiger
	Gounon	eye lens		sexual development	
localisation & suppression		Mammalia	Malininna	Homo	Tudose
Insecta	Kubli	eye pigments	Egelhaaf	somatic cell	
physiology		Insecta		Insecta	Ripoll
Insecta	Glatzer	gametes		vertebral column	
	Hess	Homo	Beatty	Mammalia	Theiler
	Johannisson	Mammalia	Beatty		
	Schafer		Bulliere	GENITAL TRACT	
primary products				see also Reproductive	
Insecta	Lubsen	genotype	McLaren	system; Urogenital system	
regulation		Mammalia			
Crustacea	Kondo	gynogenesis	Aves		
repression		Amphibia	Ferrier	Gasc	
	MacLean		Jaylet	Maraud	
RNA		hemoglobin		Rashedi	
Aves	Wylie	Homo	Godet	Stoll	
			Trabuchet	Bergerard	
GENETICS (developmental)		heterosis		Chauvin	
see also specific aspects: Cell		Mammalia	Krzanowska	Gallois	
heredity; Chromosomes;		imaginal disc	Garcia	Grignon	
Genes; Hybrids; Mutants;		Insecta		Hatier	
Nucleus etc.		lethal factor	Steinmetz	Kuhnel	
		Insecta			
Fungi	Zonneveld	limb		asymmetry	
Homo	Testa	Mammalia	Osipov	Aves	Lutz
Insecta	Korochkin		Vakhrusheva	culture in vitro	
	Woyke			Aves	Lutz
				Homo	Zaayer
				Mammalia	Glenister
					Zaayer

endocrinology	Zaayer	general study	Capuron	biochemistry	Aves	Cuminge
Homo	Brinkmann	Amphibia	Newth			Dubois
Mammalia	Glenister	Aves	Rogulska	chromosome		
glands	Zaayer	genetics		Gastropoda		
Mammalia	Blom	Insecta	Glatzer	comparative study		Bottke
histochemistry			Hess	Mammalia		Harrison
Mammalia	Gulamhusein	migration	Johannisson	culture in vitro		
pathology		Amphibia	Schafer	Amphibia		Gardenghi
Mammalia	Blom	origin	Michael		Aves	Zaccanti
GENITALIA		Amphibia	Michael		Gastropoda	Wolff
see Reproductive system		Ascidiae	Sabbadin	cytogenetics		Grygon
GERM CELLS (general)		Echinoderm	Kasyanov	Amphibia		Zaborski
see also Gametes		Insecta	Tamarelle	development		
Aves	Dubois	Mollusca	Kasyanov	Mammalia		Jost
age		Polychaeta	Sabelli	differentiation		
Mammalia	Komar	Scaphopoda	Di Grande	Aves		Rogulska
development		Teleostei	Sabelli	Lamellibr		Wolff
Amphibia	Gipouloux	Vertebrata	Timmermans	Mammalia		Lucas
differentiation		Vertebrata	Nieuwkoop			Buehr
Aves	Rogulska	Nieuwkoop				Ozdzenski
Mammalia	Burgoyne	relation with somatic cells				Rogulska
	Ozdzenski	Aves	Reynaud	effect of hormones		
	Rogulska	Insecta	Tamarelle	Aves		Scheib
effect of chemicals				endocrinology		
Aves	Bruel			Aves		Chouraqui
effect of hormones						Gasc
Polychaeta	Bertout					Weniger
experimental study						Chouraqui
Aves	Didier					Weniger
general study				experimental study		
Aves	Fargeix			Amphibia		Vannini
Reptilia	Hubert			Aves		Didier
histo- & cytochemistry				gonadogenesis		
Mammalia	Weakly			Amphibia		Tognato
interact. with somatic cells				Aves		Fargeix
Insecta	Cavallin			histochemistry		
irradiated				Mammalia		Bielanska
Mammalia	Franchi			hybrids		
irradiation				Amphibia		Mancino
Amphibia	Di Grande			immunology		
movement				Amphibia		Zaborski
Aves	Cuminge			interactions soma-germen		
origin	Dubois			Insecta		Cavallin
Insecta	Cavallin			interstitial cells		
retrotransform.	from tumour			Aves		Rogulska
Mammalia	Lazard			Mammalia		Ozdzenski
tumours						Rogulska
Mammalia	Lazard			sterile		
ultrastructure				Amphibia		Di Grande
Amphibia	Cambar					
Homo	Wartenberg			steroid synthesis		Scheib
Invertebrata	Afzelius			Aves		
Mammalia	Franchi			ultrastructure		Bielanska
	Wartenberg			Mammalia		
	Weakly					
GERM CELLS (primordial)						
biochemistry				GRADIENTS		
Insecta	Graziosi			see also Symmetry		
cytology						
Insecta	Ribbert			animal-vegetal		
determination				Echinoidea		Gustafson
Insecta	Graziosi					Immiers
differentiation				organogenesis		
Amphibia	Wylie			Chondrostei		Dragomirov
Ascidiae	Sabbadin			orientation		
Thysanura	Jonczy			Aves		Lutz
	Klag			polarity		
				Echinoidea		Gabriol
				polarity reversal		Czihak
				Insecta		Bownes

GRAFT REACTIONS		GUANOPHORES		conducting system	
see Immunology; Transplantation		see Chromatophore(s)		Aves	Vassall
GRAFTING		GYNOGENESIS		coronary arteries	
see Transplantation		see Genetics		Mammalia	Schiebler
GRANULOSA CELLS		HAIR(S)		culture <i>in vitro</i>	
see Ovary		Homo	Cerimele	Amphibia	Bride
GROWTH		Insecta	Serri	Aves	Gomot
see also Growth factors; specific organs, etc.		Mammalia	Ribbert	Mammalia	McKenzie
allometry			McLaren	Charbonne	
Crustacea	Mocquard	HAPLOIDY		Malet	
cartilage	Kvinnslund	Amphibia	Hamilton	Moczar	
Mammalia		Angiosp	Heszky	Perissel	
compensatory	Babayeva	Insecta	Woyke	development	
Mammalia	Müller	Amphibia		Amphibia	Bride
embryo		Amphibia	Denuce		Gomot
Crustacea	Bettanin	Ascidiae	Denuce	differentiation	
	Della Croce	Aves	Dawes	Aves	McKenzie
endocrinology	Mocquard	Decapoda	Williamson	Mammalia	Chapron
environmental factors		Insecta	Woyke	endocard	
Crustacea	Neumann	Nematoda	Wyss	Aves	Pexieder
Insecta	Neumann	Teleostei	Denuce	enzymes	
factors			Hagenmaier	Aves	Rinaudo
Turbellaria	Baguna	HEAD		experimental study	
fetal		Amphibia	Brandle	Aves	Aranega
Mammalia	Brun		Jongh	extracellular matrix	
immunology			Woellwarth	Mammalia	Heine
Mammalia	Babayeva	Aves	Keith	growth	
inhibition in dense popul.			Mircov	Aves	McKenzie
Amphibia	Sturdee		Schowling	histo- & cytochemistry	
Teleostei	Sturdee	Gastropoda	Verdonk	Aves	Laane
larva		Homo	Ross		Los
Amphibia	Fox		Wilde	Mammalia	Roest
nutrition		Insecta	Farnesi		Charbonne
Lamellibr	Le Roux		Rogueda		Laane
photomorphogenesis			Schoeller		Los
Angiosp	Wagner	Mammalia	Bugge		Malet
physiology			Keith		Perissel
Mammalia	Huber		Knudsen		Roest
postembryonic			Kvinnslund	innervation	
Mammalia	Huber		Morriss	Aves	
postnatal			Schowling	Mammalia	Navaratnam
Mammalia	Stanier	Turbellaria	Wilde		Navaratnam
prenatal		Vertebrata	Palladini		
Mammalia	Lansdown		Presley		
rate		HEART (& great vessels)			
Mammalia	Sterba	aorta		necrosis	
regulation		Aves	Robert	Aves	Hurle
Mammalia	Wijk	Mammalia	Moczar		Pexieder
			Robert		Pexieder
Mammalia	Desser	aortic arches	Fischer		Pexieder
	Nadal	Aves			
rhythm in morphogenesis	Sidorova	Mammalia	Perissel		
Hydrozoa	Belousov	biochemistry			
statistics		Aves	Robert		
Crustacea	Mocquard	Insecta	Jensen		
theoretical study		Mammalia	Moczar		
	Johnson		Robert		
	Mitolo				
	Zotin				
Crustacea	Mocquard	cardiac jelly			
tumour		Aves	Hurle		
Mammalia	Evans	cell cycle			
GROWTH FACTORS		Amphibia	Bereiter		
Homo	Wolff	cell interactions			
		Aves	Los		
			Roest		

teratogenesis		transplantation		HORMONE(S) (animal)
Aves	Hurle Laane Los Pexieder Roest	Aves	Gerard Kohler	see also specific hormones; Chalones; Neurotransmitters; Prostaglandins; Steroids
Mammalia	Laane Los Pexieder Roest	ultrastructure	Homo	
				Mammalia
ultrastructure		HEMOGLOBIN		Eckstein
Aves	Hurle Laane Los Pexieder Roest	see Blood		Hofmann
				androgenic
		HEMOLYMPH		Crustacea
				Meusy
		Gastropoda	Jones	birth
		Insecta	Papillon	Mammalia
				brain hormone
Insecta	Hurle Jensen Laane Los Roest	HENSEN'S NODE		Polychaeta
Mammalia		see Primitive streak		calcitonin
		HEREDITY		Homo
		see Genetics		Mammalia
vena cava		HERMAPHRODITISM		connection hypoph.-hypothal.
Homo	Larde			Aves
HEMA TOPOIESIS				Harrison
see also Liver				Mammalia
Amphibia	Deparis	Crustacea	Juchault	Harrison
Reptilia	Vasse	Gastropoda	Andre	control of glycogen in liver
comparative study		Hydrozoa	Vannini	Mammalia
Mammalia	Mazhuga	Oligochaeta	Andre	Jost
Homo	Mazhuga	Polychaeta	Vannini	control of pigmentation
culture in vitro		Turbellaria	Vannini	Insecta
Amphibia	Deparis			Bouthier
	Duprat			development
	Flavin			Insecta
effect of virus				Lafont
Mammalia	Both			eff. of hypothal. on gonadotr.
erythroblast				Teleostei
Aves	Tiedemann			effect of temperature
erythrocyte stasis				Insecta
Aves	Dyson			Papillon
erythropoiesis				effect on bone
Amphibia	Salvatorelli			Aves
Aves	Beaupain			Nijweide
	Dicterlen			Thesingh
Mammalia	Martin			Mammalia
gene transcription	Modak			Gaillard
Aves	Salvatorelli			effect of carcinogenesis
	Salvatorelli			Mammalia
				Elbling
				effect on cartilage
				Mammalia
				Burger
hemoglobin switch				effect on development
Amphibia	Deparis			Aves
	Duprat			Lakshmi
	Flavin			Sherbet
liver				Cephalop
Mammalia	Billat			Buckley
	Jacquot			Mammalia
	Nagel			Wishart
metamorphosis				effect on devel. in vitro
Amphibia	Salvatorelli			Mammalia
molecular biology				Buckley
Aves	Desveaux			effect on diapause
	Gazaryan			Mammalia
	Knochel			Baesky
	Modak			effect of differentiation
	Tiedemann			Insecta
stem cell				Bulliere
Aves	Dieterlen			effect on DNA transcr. & transl.
	Martin			Mammalia
teratocarcinoma				Goswami
Mammalia	Cudennec			effect on early development
				Homo
				Mammalia
				Baker
				Baker
				Beier
				Kuhnel
		meiosis		effect on egg
		Animalia	Vassetzky	Amphibia
				Aisenstadt
		HOMEOSIS		Doree
		see Mutants		Guerrier
		see also Regeneration (traumatic)		Skobline
				Doree
				Guerrier
				Astroidea
				Chondrostei
		HOMOGENATES		Aisenstadt
		see Tissue(s)		Skobline
				effect on embryo
		HOMOLOGOUS INHIBITION		Mammalia
		see Tissue(s)		Kaufman
				Surani
				effect on enzymes
				Aves
				Dutton
				Homo
				Dutton
				Mammalia
				Dutton

effect on eye	Insecta	Insecta	Fournier	juvenile
Insecta	Mouze	Rogueda	Insecta	Rembold
effect on fertilization		Mammalia	Desser	Vijverberg
Homo	Baker	Polychaeta	Hofmann	
Mammalia	Baker	effect on reproduction	Hauenschild	kinin
effect on fetus	Mammalia	Polychaeta		Mammalia
Mammalia	Tuchmann	Aves	LDH	LDH
effect on gametogenesis		Mammalia	Homo	Homo
Mammalia	Kaufman	Glenister	perinatal	Serman
Oligochaeta	Lattaud		Homo	Campbell
Polychaeta	Durchon	effect on reproductive tract	Mammalia	Campbell
	Pfannenstiel	Homo	Homo	Jost
effect on gene transcription		Mammalia	Zaayer	physiology
Insecta	Lezzi	Zaayer	Aves	Amphibia
effect on germ cells		effect on sexual cycle	Besse	pituitary
Polychaeta	Bertout	Crustacea	Juchault	Mammalia
effect on gonads	Aves	Crustacea	Martin	prolactin
	Chouraqui	Homo	Payen	Amphibia
	Weniger	Insecta		Mammalia
Chondrostei	Davidova	Crustacea	Lutz	PTH
	Dettlaff	Homo	Reyss	Mammalia
Mammalia	Chouraqui	Insecta	Touir	Burger
	Peters	Mammalia	Tudose	Garel
	Weniger	Crustacea	Hartmann	regeneration
effect on growth	Crustacea	Homo	Richard	Turbellaria
	Mocquard	Mammalia	Colenbrander	Franquinet
Mammalia	Stanier	Oligochaeta	Swanson	rel. embryo - corpus luteum
effect on hypothalamus	Mammalia	Polychaeta	Lattaud	Mammalia
	Mestres		Hauenschild	Torres
effect on imaginal disc	Insecta	effect on skin		role in regeneration
	Blais	Amphibia	Hanke	Mammalia
	Egberts	Mammalia	Hanke	Craciun
effect on implantation	Mammalia	effect on spermatogenesis		Preda
	Denker	Crustacea	Payen	Protase
effect on mammary gland	Mammalia	effect on teratogenesis		
	Bietry	Mammalia	Elbling	sex
effect on mesenchyme	Mammalia	effect on thyroid		Mammalia
	Knese	Amphibia	Schultheiss	Swanson
effect on metabolism	Mammalia	effect on transcription		STH
	Garel	Insecta	Scheller	Homo
effect on metamorphosis	Amphibia	embryonic testis		vasopressin
	Guardabassi	Aves	Weniger	Mammalia
	Hanke	erythropoietin		viviparity
	Torok	Aves	Salvatorelli	Reptilia
Insecta	Mauchamp	fetus		
	Vijverberg	Mammalia	Jacquot	HORMONES (plant)
Polychaeta	Durchon	FSH		
effect on moultung	Crustacea	Aves	Lakshmi	Angiosp
	Martin	Mammalia	Sherbet	Alpi
	Mocquard	gonadotropin	Peters	Amer
	Soyez	Amphibia	Aisenstadt	Bragt
effect on nervous system		Aves	Skobolina	Phillips
Mammalia	Baumgarten	Chondrostei	Protase	Pretova
effect on oogenesis			Aisenstadt	Przybyllok
Amphibia	Colombo		Skobolina	Street
	Gardenghi	Mammalia	Brinkmann	Wellensiek
	Zaccanti	Teleostei	Skobolina	Simola
Crustacea	Charniaux	hypothalamic factors		
effect on parturition		Amphibia	Campantico	HORN(S)
Homo	Gennser		Guastalla	
effect on pigmentation				Artiodactyla Hartwig
Aves	Groenendijk	interact. hypophysis-adrenal		HYBRID(S)
effect on placenta	Homo	Homo	Gennser	see also Cell heredity
	Baker	Mammalia	Klepac	Amphibia
effect on polymorphism			Milkovic	Cusimano
Insecta	Hardie		Paunovic	Mancino
	Lees		Peruzovic	Raghianti
	Rembold	interaction with nerves		Ascidiae
effect on regeneration	Amphibia	Homo	Boer	Farinella
	Sliwa		Dogterom	Deray
	Srebro		Leeuwen	Gomot
Crustacea	Noulin		Swaab	Lutz
		Mammalia	Boer	Marchand
			Dogterom	Nöthiger
			Leeuwen	
			Swaab	
				HYPERPLASIA
				see Growth
				HYPERTROPHY
				see Growth

HYPOPHYSIS

Mammalia	Mestres
adenohypophysis	
Amphibia	Pehleemann
Aves	Franco
Mammalia	Jeanvoine
culture in vitro	
Homo	Baker
	Gyevai
Mammalia	Baker
cytology	Young
Amphibia	Andrieux
development	
Aves	Guedenet
Homo	Baker
Mammalia	Baker
function	Guedenet
Amphibia	Pehleemann
Aves	Grignon
Homo	Baker
	Gyevai
Mammalia	Malaprade
	Stark
	Baker
	Grignon
histochemistry	Stark
Mammalia	Klepac
	Milkovic
	Paunovic
	Peruzovic
histogenesis	
Aves	Jeanvoine
Mammalia	Jeanvoine
hybrid	
Aves	Gomot
	Marchand
physiology	
Aves	Gomot
	Marchand
relation to hypothalamus	
Homo	Stark
Mammalia	Stark
ultrastructure	
Amphibia	Andrieux
	Pehleemann
Homo	Gyéval
Mammalia	Liwska
	Young
HYPOXIA see Respiration	
IMAGINAL DISCS	
autoradiography	
Insecta	Vijverberg
biochemistry	
Insecta	Blais
	Lafont
	Vijverberg
cell lineage	
Insecta	Steiner
compartment	
Insecta	Wilcox
culture in vitro	
Insecta	Dewes
	Garcia
	Mandaron
	Zust

determination

Insecta

Dubendorfer	Acrasiales	Gerisch
Gehring	Amphibia	Brahma
Ivanov		Chalumeau
Mglinetz		Deparis
Schedl		Duprat
Schoeller		Flavin
Schupbach		Giorgi
Zust		Ragghianti
development	Aves	Campbell
Insecta		Clayton
differentiation		Croisille
Insecta		Doorenmaalen
Deweys		Pritchard
Egberts		Truman
Gehring	Crustacea	Charniaux
Guillermet		Junera
Lafont		Meusy
Mandaron	Homo	Adinolfi
Ransom		Chalumeau
Blais	Mammalia	Doorenmaalen
Egberts		Bertini
Mandaron		Campbell
Mauchamp		Chalumeau
Vijverberg		Clayton
Lafont		Comoglio
Guillermet		Prat
Mandaron		Pritchard
Garcia	Oligochaeta	Rafstell
Ferrus	Vertebrata	Tarone
Garcia		Truinan
Morata		Marcel
Ripoll		Clayton
Santamaría		Mikhailov
Simpson		
genital		IMMUNOLOGY (developm.)
Insecta		see also Self-recognition
histochemistry		
Insecta		Mammalia
homeosis		Binns
Insecta		allograft rejection
microcinematography		Mammalia
Insecta		Steele
mitoses		antibody
Insecta		Mammalia
molecular biology		Johnson
Insecta		antibody absorption
neoplasm		Mammalia
Insecta		Morris
nerve connections		antibody-forming cells
Insecta		Aves
pattern formation		Preda
Insecta		Rusu
pattern form. after disaggr.		antibody response
Insecta		Teleostei
regeneration		Desvaux
Insecta		antigen
		Aves
		Blanchet
		Stenman
		Vaheri
		Wartiovara
		Rousseau
		Johnson
		athymic animal
		Mammalia
		Pantelouris
		cell surface
		Mammalia
		complement
		Homo
		development
		Mammalia
		McLean
		diabetes
		Homo
		Mylvaganam
		Solomon
		Mylvaganam
		Solomon
		early development
		Aves
		Rostedt

embryo-maternal relation		transplantation		molecular aspects	
Amphibia	Badet	Amphibia	Newth	Amphibia	Sala
	Chateaureynaud	yolk		morphogenesis	Muller
Mammalia	Chateaureynaud	Teleostei	Heesen	Hydrozoa	
	McLean			nervous system	
enzymes		IMPLANTATION		Amphibia	Kurrat
Mammalia	Adinolfi	Homo	Jiricka	neural	
eye lens		Mammalia	Preslickova	Amphibia	Sala
Aves	Clayton		Denker		Tarin
	dePomerai		Glenister		England
	Doorenmaalen		Gulamhusein		
	Pritchard		Hinchliffe		
Homo	Starre		Jiricka		
Mammalia	Doorenmaalen		Jirsova		
	Clayton		McLaren		
	de Pomerai		Madjerek		
	Platonov		Marston		
	Pritchard		Monk		
gonads			Preslickova		
Amphibia	Zaborski		Strauss		
graft response			Surani		
Amphibia	Horton		Torres		
growth			Webb		
Mammalia	Babayeva		Wide		
immune recognition			Wilson		
Porifera	Evans				
immune response		INDUCTION (embryonic)			
Amphibia	Balls	see also Competence;			
	Clothier	Determination; Epithelial-			
	Horton	mesenchymal interactions;			
Homo	Giannetti	Pattern formation; specific			
Mammalia	Pantelouris	organs, etc.			
Teleostei	Muiswinkel				
immunocompetence		anterior determinant			
Amphibia	Manning	Insecta	Kalthoff		
Mammalia	Solomon	Amphibia	Wall		
implantation		blastocyst	Rostedt		
Mammalia	Amoroso	Aves			
incompatibility		bract	Zust		
Amphibia	Girard	Insecta			
kidney		cartilage	Strudel		
Homo	Rousseau	Aves			
maturity		cell affinity	Grunz		
Amphibia	Manning	Amphibia	Grunz		
muscle		cell membrane			
Insecta	Bode	Amphibia			
mutant		eye			
Insecta	Graziosi	Vertebrata	Mikhailov		
oocyte maturation		eye lens	Karkinen		
Teleostei	Apekin	Aves	Hoperskaya		
origin of immune cells		Vertebrata			
Teleostei	Muiswinkel	gastrula & neurula			
pregnancy		Amphibia	Johnen		
Mammalia	Bulmer	heterogeneous			
proteins	Peel	Amphibia	Johnen		
Echinoidea	Westin	Aves	Toivonen		
reproduction		histo- & cytochemistry	Rostedt		
Homo	Billington	Amphibia	Tarin		
	Dillon	Aves	Vahs		
	Jenkinson	Teleostei	Starre		
	Searle	mass effects	Vahs		
	Sellens	Amphibia	Johnen		
	Smith	mesoderm			
Mammalia	Billington	Amphibia	Boterenbrood		
	Dillon	Aves	Hara		
	Jenkinson	Amphibia	Nieuwkoop		
	Searle	microcinematography			
	Sellens	Amphibia	Hara		
	Smith		Tarin		
temperature					
Aves	Preda				
	Rusu				

INTERSTITIAL CELLS		JAW(S) see Skull	ultrastructure Amphibia	Cambar
Hydrozoa Fioroni		JOINT(S) see Skeleton	Aves	Russo
INTESTINAL TRACT		KARYOTYPE see Chromosome(s)	Gastropoda	Giese
Amphibia Kujat		KIDNEY(S)	Mammalia	Russo
Aves Lestage		biochemistry Mammalia	LABYRINTH	
Cephalopoda Martin		culture in vitro	see Static organ	
Mammalia Duncker		Mammalia	LARVAL DEVELOPMENT	
Aves Fioroni		development	see Development (larval)	
Cobos		Aves	LARYNX	
Galant		Homo	see Respiratory tract	
Haffen		Mammalia	LATERAL LINE SYSTEM	
Hemmings		differentiation	Chondrostei Dragomirov	
Mandysova		Homo		
Pleeging		Aves	LEAF	
Veget		Mammalia	see also Apical dominance;	
IODINE		enzymes	Phyllotaxis	
see Chemical elements		Aves	Angiosp	Harte
IONS		epith.-mes. interact.		Neville
see also Chemical elements		Mammalia	Przybyllok	
Amphibia Dick		histo- & cytochemistry	Sanfo	
Ascidiacea Mansueto		Aves	Woltz	
Aves Simkiss		Mammalia	LEUCOCYTES	
Hydrozoa Muller		immunology	see Blood	
Insecta Beetz		Homo	LIFE CYCLE(S)	
Beyse		involution	see also Development (general)	
Lezzi		Aves	Copepoda	Lescher
Seydewitz		Mammalia	Crustacea	Castel
Wuhrmann		juxtaglomerular	LIGHT	
Mammalia Bara		Aves	see also Environmental factors	
Bluemink		Mammalia	Amphibia	Briegleb
Laat		mesonephros	Mammalia	Parsons
Moolenaar		Amphibia	Musci	Simola
Nelemans		Aves	Teleostei	Grun
Saag		Mammalia		Ramsay
Mollusca Geilenkirchen		juxtaglomerular		Wise
Polychaeta Brachet		Aves	LIMB(S)	
IRON		Mammalia	see also Regeneration (traumatic); Skeleton; Wing(s)	
see Chemical elements		molecular biology	biochemistry	
IRRADIATION		Aves	Amphibia	Hinchliffe
see also Ultraviolet irradiation; X-irradiation		morphogenesis	Aves	Hinchliffe
background		Amphibia	Amphibia	Sturdee
Mammalia Whittingham		Mammalia	Aves	Amprino
different types & doses		Homo	Amphibia	Ede
Amphibia Gallien		Mammalia	Aves	Kaprio
effect on bone & cartilage		Homo	Amphibia	Kieny
Mammalia Nijweide		Mammalia	Aves	Mauger
effect on nervous system		pronephros	Amphibia	Pautou
Mammalia Wender		Amphibia	Aves	Roncali
gametes		teratogenesis	Mammalia	Vasse
Mammalia Franchi		Mammalia	cell interactions	
limb		tubules	Amphibia	Sturdee
Mammalia Rajtova		Mammalia	chondrogenesis	Hinchliffe
regeneration		Aves	Amphibia	Hinchliffe
Turbellaria Chandebois		Aves	Aves	Gumpel
sensitivity		Amphibia	culture in vitro	
Amphibia Hamilton		Aves		
skull		Mammalia		
Mammalia Rajtova		Aves		
teratogenesis		Amphibia		
Mammalia Horvath		Aves		
Roux		Mammalia		

development	Cihak	ultrastructure	Lauthier	experimental study
Vertebrata		Amphibia	Tarin	Aves
digits		Aves	Kaprio	Houssaint
Aves	Pautou	vascularization	Pautou	Le Douarin
dorso-ventrality		Aves	Roncali	Houssaint
Aves	Pautou	Homo	Mazhuga	
experimental study		Mammalia	Mrazkova	Felix
Aves	Amprino	Mammalia	Mazhuga	Jacquot
	Ede			Legrele
	Kieny			
	Roncali			
Insecta	Seichert	LIP		
foot	Fournier	see Mouth		
Aves	Kieny	LIPID(S) (& fatty acids)		
function		see also Adipose tissues		
Amphibia	Brändle			
general study		Aves	Dameron	
Aves	Lewis	Homo	Marin	
genetics		Mammalia	Rooy	
Mammalia	Osipov		Dameron	
growth	Vakhrusheva		Lawrence	
Mammalia	Shoro		Marin	
hand			Pascaud	
Mammalia	Trnkova		Rooy	
histochemistry		LITHIUM		
Amphibia	Lauthier	see Chemical elements		
histology	Tarin			
Mammalia	Druga	LIVER		
innervation		see also Hematopoiesis;		
Aves	Camosso	Regeneration (traum.)		
irradiation	Lewis			
Mammalia	Rajtova	autoradiography		
malformations		Mammalia	Lombard	
Homo	Lenz	amitosis		
mesoderm		Ammiota	Vahs	
Aves	Kieny	bile		
morphogenesis		Homo	Campbell	
Aves	Kieny	Mammalia	Campbell	
Mammalia	Bart	bile duct		
	Desbiens	Homo	Becker	
muscle			Gathmann	
Aves	Mauger	biochemistry		
mutant		Aves	Houssaint	
Amphibia	Watson	cell cycle factors		
necrosis		Mammalia	Lombard	
Aves	Hinchliffe	cell proliferation		
pattern formation		Mammalia	Lombard	
Aves	Wolpert	culture in vitro		
phylogenesis		Aves	Houssaint	
Amphibia	Hinchliffe	Mammalia	Charbonne	
polarity			Perissel	
Aves	Tickle		Virtanen	
teratogenesis			Wijk	
Amphibia	Lauthier	development		
Aves	Camosso	Amphibia	Spornitz	
Crustacea	Roncali	differentiation		
Mammalia	Noulin	Mammalia	Virtanen	
	Druga	effect of neurotransmitter		
	Shoro	Mammalia	Gerzeli	
theoretical study		embryo		
Aves	Message	Homo	Becker	
tissue interactions	Mitolio		Gathmann	
Aves	Gumpel	endocrinology		
transplantation		Mammalia	Vetterlein	
Amphibia	Brändle	enzymes		
	Tarin	Amphibia	Charles	
		Aves	Lamers	
		Mammalia	Croisille	
			Vetterlein	
			Wijk	

bronchi		brain		syndromes	
Aves	Duncker	Aves	Guirao	Homo	Pawlowitzki
culture in vitro		Homo	Guirao	urogenital system	
Aves		Mammalia	Lierse	Mammalia	Gabriel
		branchial region		vascular system	
enzymes		Amniota	Slipka	Homo	Woollam
Aves		Homo	Slipka	Mammalia	Bugge
		chromosome aberrations			Knudsen
		Homo	Testa		Woollam
		Mammalia	Tudose	vertebral column	
Mammalia	Dameron	Cappannini		Aves	Strudel
	Marin	Tarkowski			
	Dameron	Witkowska			
epith. -mesench.	Marin				
	interact.				
Aves	Beccetti				
	Calastrini				
	Carinci				
	Stabellini				
Mammalia	Lawson				
regeneration					
Mammalia	Romanova				
surfactant					
ultrastructure					
Aves	Beccetti				
	Calastrini				
vascularization					
Aves	Duncker				
LYMPHATIC SYSTEM					
see also Bursa of Fabricius;					
Spleen; Thymus					
Amphibia	Manning				
	Salvatorelli				
	Sporntz				
Aves	Curtis				
	Houssaint				
	Jotereau				
Homo	Le Douarin				
	Groscurth				
	Tondury				
Mammalia	Binns				
	Evans				
	Groscurth				
	Kistler				
	Pantelouris				
	Symons				
	Tondury				
Vertebrata	Russo				
LYMPHOCYTES					
see Lymphatic system					
LYSOSOMES					
see Subcellular components					
MACROPHAGE SYSTEM					
Mammalia	Mazhuga				
MAGNETIC FIELDS					
see also Environmental factors					
MALFORMATIONS					
see also Mouth; Teratogenesis					
Amphibia	Fischer				
Homo	Nie				
Mammalia	Kleinebrecht				
	Nie				
anencephaly					
Homo	Serrantino				
	Tuchmann				
axial					
Aves	Lanot				

MEMBRANE		carbohydrate		excretory system
see also Cell; Cell wall;		Fungi	Hammond	Amphibia
Fertilization; Subcellular		culture in vitro	Wrba	Cambar
components		Mammalia		Girard
		differentiation		Le Garff
Acrasiales	Gerisch	Insecta	Hansen	experimental study
	Bluemink	early stages	Lovtrup	Echinoderm
	Brachet	Amphibia	McKenzie	Phoronidea
	Ceas	Aves		Herrmann
	Grunz	Gastropoda	Geilenkirchen	Herrmann
	Guerrier	embryo		Siewing
	Moreau	Mollusca	Geilenkirchen	
	O'Dell	energy		eye
	Moreau	Amphibia	Brachet	Insecta
	Blanchet	Insecta	Duspiva	factors producing
Asciadiacea	Clayton		Fourche	Hydrozoa
	de Pomerai	enzymes		Müller
	Pannese	Mammalia	Walker	head
	Pritchard	functional differentiation		Amphibia
	Guerrier	Mammalia	Kaluza	heart
	O'Dell	morphogenesis		Insecta
	Vittorelli	Echinoidea	Ostromova	hematopoiesis
	Wal	Hydrozoa	Ostromova	Amphibia
	Duspiva	Mammalia	Wegmann	Salvatorelli
	Muller	oogenesis		hemoglobin switch
Insecta	Haget	Mammalia	Baker	Amphibia
	Bara	organogenesis		Weber
	Bertini	Aves	Thesingh	histo- & cytochemistry
	Bisconte	perinatal		Actinozoa
	Bluemink	Mammalia	Garel	Amphibia
	Clayton	regeneration		Insecta
	Comoglio	Hepaticae	Needham	histology
	de Pomerai	sporophore		Gastropoda
	Laat	Fungi	Viell	Porifera
	Lawrence	starvation		involution
Mammalia	Moolenaar	Turbellaria	Pedersen	Amphibia
	Nelemans			Asciadiacea
	Prat	METALS		Insecta
	Pritchard	see Chemical elements		Turner
	Saag			Burghel
	Surani			Bautz
	Tarone			Russo
	Virtanen			molecular biology
	Wartiovaara			Amphibia
	Guerrier			Ficq
Polychaeta		Asciadiacea	Patricolo	morphogenesis
		Cyclostom	Baxter	Hydrozoa
		Echinoidea	Kruchkova	Scyphozoa
		Ectoprocta	D'Hondt	muscle
		Gastropoda	Fretter	Amphibia
		Hymenopt	Schmidt	Insecta
		Tunicata	Georges	neoteny
				Amphibia
		autoradiography	Efremova	Bertolani
		Porifera		Briegleb
MERISTEMS		biochemistry		Jurand
Angiosp	Bernard	Amphibia	Abraham	nervous system
	Clowes		Weber	Insecta
		Hydrozoa	Muller	partial
MEROGONES		control		Amphibia
see Genetics; Hybrid(s)		Invertebr		Nowakowna
MESENCHYME		differentiation	Muller	Sembrat
Aves	Gumpel	Amphibia	Turner	physiology
	Knese			Amphibia
	Homo	effect of pesticides		puparium
	Mammalia	Amphibia	Marchal	Insecta
Porifera	Knese	endocrinology	Guardabassi	role of cuticle
	Robert	Amphibia	Hanke	Insecta
			Schultheiss	role of epidermal gland
		Amphibia	Tork	Insecta
MESODERM		endocrinology	Eeken	salivary gland
see Embryology (experimental); Embryology (general & descriptive)		Amphibia		Insecta
MESONEPHROS				skin
see Kidney(s)				Amphibia
METABOLISM (general)				Clemen
see also Energy; Respiration				subcellular components
bone cells				Insecta
Aves				Priester
				tail
				Amphibia
				Guardabassi
				timing
				Eeken
Insecta				ultrastructure
Polychaeta				Actinozoa
enzymes				Insecta
Insecta				Porifera
epidermal gland				Dooumenc
Amphibia				Beinbrech
				Gaudecker
				Efremova
Nijweide				

METANEPHROS
see Kidney(s)

METAPLASIA

Amphibia	Lopashov
Aves	Clayton
	de Pomerai
	Pritchard
Hydrozoa	Schmid
Mammalia	Lopashov
	Sologub
Teleostei	Sologub

METHODS (& equipment)
see also Rearing methods

MICROCINEMATOGRAPHY

Amphibia	Hara
	Lucey
	Tarin
Angiosp	Erdelska
Aves	Lucey
	Mauger
	Menkes
Insecta	Camenzind
	Mandaron
	Went
Mammalia	Opas
	Wijk
Nematoda	Wyss

MINERALS

see Chemical elements

MITOCHONDRIA

see Subcellular components

MITOSIS

see also Amitosis; Antimitotic agents; Cell(s)-division;
Cleavage; Growth factors

apparatus

autoradiography ap Gwynn

Amphibia Brugal

biochemistry

Insecta ap Gwynn

cell dynamics Beetz

chromosome

Mammalia Hojager

cleavage

Amphibia Ragghianti

Gastropoda Bottke

Crustacea Lasques

control Balls

early development Petzelt

Echinoderm Petzelt

effect of cytokinin Doree

effect of hormones Giroud

endocrinology Bart

Insecta Bart

endomitosis Marcel

Gastropoda Muller

eye lens Scyphozoa

Mammalia McAvoy

fibroblast in vitro Van Gansen

Mammalia

genetics

Mammalia Konyukhov

hepatocytes Sazhina

Mammalia Lombard

hybrid Bucci

Amphibia Vijverberg

imaginal disc Insecta

inhibition Nadal

Mammalia Chibon

kinetics Amphibia

molecular biology Barsacchi

Amphibia Batistoni

molecular biology Nardi

multiplication rate Salamatina

Aves Tumanishvili

Mammalia Salamatina

nervous system Tuinanishvili

Insecta Beetz

Mammalia Bisconte

pattern McAvoy

Mammalia Brugal

proliferation Amphibia

Insecta Chibon

Mammalia Giroud

Aves Amprino

Mammalia Bulmer

Insecta Konyukhov

Mammalia Mazzucco

Aves Peel

Mammalia Sazhina

proliferation control Aves Puri

Insecta Turner

proliferation in vitro Aves Gotzos

Homo Gotzos

regeneration Timashkevich

Mammalia Petzelt

Echinoderm Roncali

relation with vascularization Aves Harte

theoretical study Rodentia Karcher

Tooth Ruch

MONSTROSITIES

see Malformations

MORPHOGENESIS

see also Culture &

preservation; Development;

Embryology

Phasmida Bart

Porifera Boury

agents Amphibia Grunz

Hydrozoa Muller

Oligochaeta Marcel

Scyphozoa Muller

asexual reproduction Hydrozoa Polteva

autoradiography Amphibia Ficq

axis

Aves

biochemistry

Echinoidea

Turbellaria

biophysics

Amphibia

Aves

cell interactions

Porifera

cellular basis

Aves

Mammalia

culture in vitro

Angiosp

early stages

Gastropoda

endocrinology

Aves

enzymes

Fungi

experimental study

Actinozoa

Amphibia

field

Ciliata

genetics

Insecta

genetics & environm.

factors

Angiosp

growth rhythm

Hydrozoa

inhibition

Turbellaria

interact. with metabolism

Echinoidea

Hydrozoa

irradiation

Mollusca

limb

Aves

molecular biology

Crustacea

Hydrozoa

movement

Acrasiales

Amphibia

Aves

Echinoidea

Insecta

Teleostei

neural tube closure

Aves

Mammalia

physiology

Mammalia

regeneration

Turbellaria

role of cuticle

Insecta

role of egg shell

Insecta

role of epidermal gland

Insecta

role of membrane

Amphibia

Guerrier

Echinoderm

Guerrier

Polychaeta

axis

Aves

Backstrom

Torok

Belousov

Belousov

Kemp

Ede

Wolpert

Ede

Heszky

Boon

Lakshmi

Sherbet

role of nerve tissue		teratogenesis	Lendon	Homo	Cihak
Hydrozoa	Muller	Mammalia		Dylevsky	
Scyphozoa	Muller	tongue		Grim	
starving animals		Homo	Choffel	Trnkova	
Turbellaria	Tokin		Dollander		
ultrastructure		ultrastructure			
Amphibia	Selman	Amphibia	Clemen	Chiquet	
MORPHOGENETIC FIELDS		Mammalia	Morgan	Luger	
see Embryology (experimental)		wound healing		Luger	
Regeneration (traumatic)		Mammalia	Andersen		
MORTALITY (embryonic,			Fejerskov		
fetal)					
see Pathology		MUCOPOLYSACCHARIDES		fast & slow	
MORULA		see Carbohydrate(s)		Mammalia	Salmons
see Cleavage		MULLERIAN DUCT		fibre	
MOSAICISM (genetical)		Aves	Lutz	Mammalia	Korneliussen
see Genetics		Mammalia	Groenendijk	Teleostei	Kozlowska
MOTILITY			Vilanova	genetics	
see Behaviour; Cell(s)-move-				Aves	Knize
ment; Morphogenesis		MULTIPLE BIRTHS			Knizetova
MOTOR END PLATES		see Twins		Mammalia	Knize
see Nervous system		MUSCLE(S)			Knizetova
MOULT(ING)		absence in mutant		growth	
Crustacea	Blanchet	Insecta	Stocker	Aves	Douglas
	Martin	actin			Knize
	Mocquard	Asciidiacea	Puccia		Knizetova
	Soyez	actomyosin		Mammalia	Knize
	Williamson	Aves	Kemp		Knizetova
Insecta	Jensen	biochemistry		histochemistry	
	Larink	Aves	Giacobini	Amphibia	Message
MOUTH		Homo	John	Aves	Robecchi
see also Pharynx		Mammalia	John		Message
cleft lip			Salmons		
Homo	Limborgh	biophysics	Parsons	innervation	Zacchei
cleft palate		Mammalia	Salmons	Amphibia	Kordylewski
Mammalia	Morgan	cell death	Cullen	Aves	Landauer
culture in vitro		Homo			Robecchi
Amphibia	Capuron	cell fusion	Luger		Sisto
experimental study		Aves		involution	
Amphibia	Cusimano	Mammalia	Luger	Amphibia	Muntz
induction		chromatin	Bachmann	limb	
Amphibia	Capuron	Mammalia	Muntz	Aves	Kieny
mast cell degranulation		comparative study		metamorphosis	Jongh
Mammalia	Luke	Amphibia		Amphibia	Beinbrech
mucosa		culture in vitro		Insecta	
Homo	Murbach	Aves		molecular biology	Jones
	Schroeder				
mucosa endocrinology				myoblast	McKenzie
Mammalia	Luke			Aves	Eppenberger
palate					Heizmann
Amphibia	Clemen	Insecta		Mammalia	Heizmann
Homo	Harris	Mammalia		myogenesis	
	Wilde			Amphibia	Burgess
Mammalia	Andersen	cytology			Kielbowna
	Dostal	Aves			Hinrichsen
	Fejerskov			Insecta	Bode
	Harris	Mammalia			Hinrichsen
radula	Wilde			Mammalia	
Cephalop	Meister	development		neurogenic control	Filogamo
stereology		Amphibia		Aves	
Homo	Murbach				Kieny
	Schroeder				Mauger

		Mammalia	Campbell Clayton de Pomerai Pritchard Truman	MYCETOME
regeneration	Parsons			Insecta
Homo	Cullen			Korner
Mammalia				Sander
tendon				
Aves	Robecchi	homoeotic	Ivanov	MYELIN(IZATION)
tissue interactions		Insecta	Lawrence	see Central nervous system
Aves	McKenzie		Mglinetz	
ultrastructure			Stocker	MYOBLASTS
Amphibia	Jongh	imaginal disc	Ferrus	see Muscle(s)
	Muntz	Insecta	Simpson	MYOGENESIS
Aves	Douglas			see Muscle(s)
	Giacobini	immunology		MYOSIN
	Robecchi	Insecta	Graziosi	see Muscle(s)
Cephaloch	Flood	lampbrush chromosomes		MYOTOME
Cyclostom	Flood	Amphibia	Loones	see Somite(s)
Insecta	Beinbrech			NASAL ORGAN
Mammalia	Cullen	Gastropoda	Arnolds	see Olfactory organ
	Jones	Insecta	Ripoll	
			Schoeller	NEMATOCYSTS
		limb	Scriba	
Amphibia	Beetschen	Amphibia	Watson	NEOPLASIA
	Ferrier	Aves	Hinchliffe	see Tumours
	Jaylet	maternal effect	Nusslein	NEOTENY
Mammalia	James	Insecta	Keith	see Metamorphosis
		microphthalmic		NERVE(S)
Aves	Flint	Mammalia	Ede	comparative study
Euglenophyc	Nicolas	morphogenesis	Ede	Amphibia Muntz
Mammalia	Flint	Aves		fibre
	Lyon	Mammalia		Mammalia Kaluza
	Papaioannou	neuroendocrinology		metabolism Mammalia Kaluza
achondroplastic		Mammalia	Johnson	regeneration Mammalia Nie
Mammalia	Johnson	nude		
action		Mammalia	Fontaine	NERVE CELLS
Mammalia	Keith	pattern formation	Pantelouris	
affecting organisation		Insecta	Tondury	
Insecta	Bownes	pigmentation	Nusslein	
albino		Mammalia		
Amphibia	Hoperskaya	scallopine		
	MacMillan	Insecta		
Insecta	Bouthier	semi-lethal		
antibiotic-negative		Amphibia		
Bacteria	Seddon	skeleton		
auditory organ		Mammalia		
Mammalia	Deol	sporophore		
	Truslove	Fungi		
biochemistry		t		
Insecta	Kubli	Mammalia		
Mammalia	Johnson	temperature		
brain		Insecta		
Mammalia	Johnson	temperature-sensitive		
chloroplast		Insecta		
Euglenophyc	Heizmann	testis		
curly tail		Mammalia		
Mammalia	Seller	ultrastructure		
differentiation		Mammalia		
Insecta	Breugel	variegation		
differentiation in vitro		Mammalia		
Angiosp	Harte	white		
enzymes		Mammalia		
Insecta	Fragoulis			
eye				NERVOUS SYSTEM
Mammalia	Konyukhov			see also specific components;
	Truslove			Neurotransmitters;
eye lens				Synapse
Aves	Campbell			
	Clayton			
	de Pomerai			
	Pritchard			
	Truman			
		MUTATION		
		see Genetics		

		genetics		NEURAL CREST	
adaptability	Homo	Insecta	Ferrus	Amphibia	Chibon
		Nematoda	Brenner		Lofberg
Mammalia	Veltman	histo- & cytochemistry	Ryberg	Macmillan	Macmillan
	Hodde	Echinoidea	Korochkin	Wakita	Wakita
	Uylings	Mammalia	Wender	Hach	Hach
adaptation	Veltman	impulse conducting system		Aves	Harreboeme
Homo	Boer	Echinoidea	Ryberg		Harrisson
	Dogterom	irradiation			Keith
Mammalia	Leeuwen	Mammalia	Wender		Le Douarin
	Swaab	maturity			Lelievre
	Boer	Amphibia	Baker		Teillet
	Dogterom		Bakhuis	Mammalia	Ziller
Mammalia	Leeuwen		Corner		Harrisson
	Swaab	Homo	Romijn	Keith	Keith
angiogenesis	Aves		Boer	Teleostei	Rombout
	Lanot		Dogterom		
biochemistry	Homo		Leeuwen		
	Mammalia		Swaab		
biophysics	Amphibia		Baker	Amphibia	Beetschen
cell lineage	Bondi		Bakhuis		Woellwarth
Nematoda	Sulston		Boer		
connection with eye			Corner		
Insecta	Tesch		Dogterom		
culture in vitro	Jacobson		Leeuwen		
development			Romijn		
Insecta	Gateff		Swaab		
effect of chemicals					
Amphibia	Palladini	metamorphosis			
effect of drugs		Tunicata	Georges		
Mammalia	Muller	monoaminergic system		Amphibia	Sliwa
effect on asexual reprod.		Mammalia	Cadilhac		Srebro
Hydrozoa	Vannini	morphology		Aves	Strudel
Turbellaria	Tognato	Aves	Drukker		Herp
	Vannini	motor end plate			Martin
effect on polymorphism		Mammalia	Korneliussen		Mocquard
Insecta	Hardie	muscular dystrophy			Soyez
effect on regeneration		Mammalia	Parsons		Stroenberg
Hydrozoa	Vannini	neoplasm		Hydrozoa	Vannini
Turbellaria	Tognato	Insecta	Gateff	Insecta	Hardie
	Vannini	neural tube			Ramade
effect on sex different.		Vertebrata	Hauser		Johnson
Hydrozoa	Vannini	neuronal specificity		Mammalia	Oligochaeta
Turbellaria	Tognato	Insecta	Jacobson		Stagni
	Vannini	Vertebrata	Stocker		Marini
effect on vascular system		neurotaxis			Tognato
Mammalia	Chapron	Aves	Horder		Vannini
endocrinology					
Homo	Boer				
	Dogterom				
	Leeuwen				
Mammalia	Swaab				
	Boer	perineuronal material		Aves	Strudel
	Dogterom	Aves		Crustacea	Herp
	Leeuwen	peripheral		Mammalia	Drews
	Swaab	Homo		Polychaeta	Coulon
enzymes		physiology			
Homo	Wender	Mammalia	Corner	acetylcholine	
Mammalia	Wender		Korochkin	Ascidiae	Falugi
experimental study		regeneration			Minganti
Aves	Drukker	Annelida	Boilly	Echinoidea	Falugi
	Laot	Insecta	Schurmann		Gustafson
Mammalia	Korochkin	Oligochaeta	Marcel		Minganti
factors for axon outgrowth	Jacobson	Mammalia	Cochard	choline acetylase	
		Schwann cell		Aves	Giacobini
fetus		Mammalia	Parsons	cholinesterase	
Homo	Garcia			Aves	Giacobini

early development		early stages		Mammalia	Bluemink
Echinoidea	Buznikov	Amphibia	Darnbrough		Laat
	Gustafson		Habrova		Moolenaar
	Manukhin		Lohmann		Nelemans
	Markova		Nedvidek		Saag
	Teplitz	Aves	McMaster	Polychaeta	Wijk
egg symmetrisation			Modak	Turbellaria	Coulon
Amphibia	Ubbels	Crustacea	Wylie	development	Franquinet
GABA		Echoidea	Hultin	Insecta	
Mammalia	Rokyta	egg	Immers	others	Duspiva
isoproterenol	Zählava	Amphibia	Brachet	Insecta	Duke
Mammalia	Gerzeli	epidermis		teratogenesis	
monoamines		Insecta	Bulliere	Mammalia	Svejcar
Aves	Barbosa	experimental study			
	Collin	Amphibia	Nedvidek	NUCLEUS	
	Harrison		Romanovsky	see also Chromosomes; Nucleo-	
	Meiniel		Sladecek	cytoplasmic interactions	
Crustacea	Raineri	hybridization		Mollusca	Bolognari
Echinoidea	Gustafson	Amphibia	Barsacchi	autoradiography	
	Toneby		Batistoni	Amphibia	Chibon
Homo	Navaratnam	imaginal disc	Nardi	biophysics	
Mammalia	Baumgarten	Insecta	Lafont	Insecta	Beyse
	Collin	mutants			Syedewitz
	Harrison	Insecta	Kubli	control of RNA synthesis	
	Navaratnam	oogenesis		Echinoidea	Rinaldi
	Sievers	Amphibia	Darnbrough	histo- & cytochemistry	
pineal organ	Collin		Ford	Gastropoda	Bolognari
Vertebrata			Habrova	Insecta	Perkowska
regeneration			Nedvidek	macronucleus	
Turbellaria	Franquinet	Aves	Wylie	Ciliata	Schwartz
teratogenesis		Insecta	Duspiva	microcinematography	
Aves	Meiniel		Russo	Amphibia	Lucey
NEURULA(TION)					
Amphibia	Johnen	regeneration	Amphibia	molecular biology	
	Lohmann	Amphibia	Mitashov	Amphibia	Angelier
	Peters				Müller
		NUCLEO-CYTOPLASMIC			Van Gansen
		INTERACTIONS		Insecta	DerkSEN
		Amphibia	Aimar	morphogenetic function	
			Gallien	Amphibia	Ignatjeva
			Lopashov	Teleostei	Ignatjeva
		Chlorophyc	Skobline	nucleolinus	Bolognari
			Koop	Mollusca	
			Schweiger	nucleolus	
		Chondrostei	Skobline	Amphibia	Angelier
		Gastropoda	Meshcheryakov	Gastropoda	Kielbowna
		Mammalia	Balakier		Koscielski
			Tarkowski	Homo	Martinek
		Teleostei	Kostomarova	Insecta	Perkowska
			Skobline	Mammalia	Martinek
				Oligochaeta	KopeC
NUCLEAR TRANSPLANTATION		NUCLEOLUS		oocyte	Perkowska
see Nucleus		see Nucleus		Insecta	
NUCLEIC ACID(S)		NUCLEOTIDES (&		protein	
see also specific nucleic acids;		nucleosides)		Amphibia	Yamada
Nucleotides (& nucleosides)			transfer	Amphibia	
cell cycle		control of regeneration			Aimar
Amphibia	Lohmann	Actinozoa	Lenicque		Gallien
determination		Turbellaria	Lenicque		Lucey
Insecta	Kuthe	cyclic			Nedvidek
development		Acrasiales	Gerisch		Romanovsky
Amphibia	Raghianti		Konijn		Signoret
Insecta	Duspiva		Mato		Sladecek
differentiation		Amphibia	Puccia		Santamaria
Insecta	Kuthe	Ascidiaeae	Durante		Schnetter
	Rembold	Echoidea	Backstrom	ultrastructure	
			Vittorelli	Gastropoda	Bolognari
				Insecta	DerkSEN

NUTRITION (embryonic, larval, etc)		descriptive study		
Amphibia	Lestage	Crustacea	Charniaux	ultrastructure
Cephalopoda	Fioroni	Insecta	Godula	Amphibia
Crustacea	Williamson	endocrinology		
Gastropoda	Fioroni	Amphibia	Gardenghi	Ascidiae
	Fretter	Crustacea	Zaccanti	
Insecta	Koscielska	Polychaeta	Charniaux	Cephaloch
	Le Garff	environmental factors	Dhainaut	Gastropoda
Lamellibr	Le Roux	Insecta	Papillon	
	Lucas	Teleostei	Zaitzev	
Mammalia	Aurooux	follicles	Hirudinea	Hydrozoa
	Beck	follicle cells	Gonfollicles	Insecta
	Tonge	Amphibia	Goncharov	Mammalia
Teleostei	Fioroni	Chondrostei	Goncharov	Teleostei
OESOPHAGUS		Gastropoda	Bottke	OOPLASMIC SEGREGATION
Mammalia	Seveenko	general study	Pfannerstiel	see Egg(s)
OESTROUS CYCLE		Polychaeta		ORGANIZATION
see Reproduction		histo- & cytochemistry		see Pattern formation
OLFACTOORY ORGAN		Asciidae	Dolcemascolo	
Homo	Harris	Cephaloch	Gianguzza	
Mammalia	Harris	Hydrozoa	Mancuso	
Teleostei	Bertmar	Insecta	Riehl	
OOCYTE		Mammalia	Stagni	
see Egg(s)		Teleostei	Bielanska	
see also Gamete(s)		involution	Ogorzalek	
OOGENESIS		Amphibia	Russo	
see also Gametes; Vitellogenesis		Mammalia	Bielanska	
Amphibia	Kress	Teleostei	Riehl	
	Sporntz	involution		
Arachnida	Feiertag	Amphibia	Sporntz	
	Pijnacker	irradiation		
Collembola	Krzysztofowicz	Mammalia	Baker	
Crustacea	Zeribib	meiosis		
Hydrozoa	Aisenstadt	Lamellibr	Vassetzky	
Insecta	Gateff	metabolism		
	Matuszewski	Mammalia	Baker	
	Pijnacker	molecular biology		
	Romanowska	Amphibia	Darnbrough	
	Stebbins		Denoulet	
Mammalia	Ullmann	nucleoplasmic relations	Ficq	
Teleostei	Zaitzev	Mammalia	Ford	
autoradiography		nucleolus	Grippo	
Amphibia	Ficq	Gastropoda	Habrova	
Gastropoda	Bottke	Insecta	Moreau	
Insecta	Ogorzalek	parthenogenetic	Nevidek	
Teleostei	Riehl	Crustacea	Wylie	
biochemistry		physiology	Insecta	
Amphibia	Denis	size synchronization	Kloc	
	Mazabraud	Polychaeta	Balakier	
	Wegnez		Tarkowski	
Echinoidea	Backstrom	nutritive cells	Kielbowna	
	Cognetti	Hirudinea	Koscielski	
Gastropoda	Bottke	parthenogenetic	Kopec	
	Deri	Crustacea	Fischer	
Insecta	Duspiva	physiology	Sabelli	
Polychaeta	Fischer	size synchronization	Johannisson	
chromosomes		staging	Fischer	
Amphibia	Lacroix	Cephaloch	Riehl	
Gastropoda	Mancino	Teleostei	Riehl	
comparative study		steroids		
Deuterostom	Colombera	Teleostei	Colombo	
cytology		tracer studies		
Insecta	Chauvin	Aves	Callebaut	
	Russo			

Homo	Ludwig	OVULE	Mammalia	Mercier
Mammalia	Kaufman	see Embryology (plant)		Mylvaganam
	Lombard			Solomon
	Ludwig	OXYGEN		Tuchmann
	Peters	see Chemical elements; Environmental factors		
follicle			diagnosis	
Amphibia	Goncharov	PALATE	Homo	Benson
Aves	Evans	see Mouth	enzymes	
	Gabajeva		Homo	
	Gilbert	PANCREAS	Mammalia	Chalumeau
Chelonia	Perry		free radicals	Chalumeau
Chondrostei	Gabajeva		Amphibia	Melehova
	Davidova		gall stone	
	Dettlaff		Mammalia	France
Cyclostom	Goncharov		heart	
Homo	Gabajeva		Mammalia	Nie
	Ludwig		heteroploidity	
	Webb		Homo	Beatty
Insecta	Mays		Mammalia	Beatty
	Ribbert		immunology	
Lacertilia	Gabajeva		Homo	Giannetti
Mammalia	Ludwig		pancreatitis	
	Peters		Mammalia	Lansdown
Teleostei	Webb		placenta	
	Gabajeva		Homo	Becker
	Riehl		Mammalia	Jiricka
function			prenatal	
Mammalia	Byskov		Homo	Menkes
granulosa cell dynamics			Mammalia	salt wasting syndrome
Mammalia	Hojager		Homo	Gabriel
histo- & cytochemistry			Mammalia	
Homo	Ludwig		Homo	Posinovec
Mammalia	Ludwig		Mammalia	Bernocchi
Teleostei	Riehl			Fraschini
interstitial cells				Manfredi
Homo	Stegner			Porcelli
Mammalia	Stegner			Redi
molecular biology				Scherini
Insecta	Nagl		thymus	
nurse cells			Homo	Rembiszewska
Crustacea	Johannisson			Roszczynska
Insecta	Ribbert		trophoblast	
	Russo		Homo	Panigel
origin of somatic cells			ultrastructure	
Aves	Callebaut		Homo	Kistler
physiology			Mammalia	Kistler
Amphibia	Goncharov		virus-induced	
Chondrostei	Goncharov		Homo	Kistler
polyovular follicle			Mammalia	Kistler
Mammalia	Ullmann			
ultrastructure			PATTERN FORMATION	
Homo	Stegner		see also Induction	
Mammalia	Byskov			
	Lombard		Ciliata	Golinska
	Stegner		biochemistry	
Teleostei	Weakly		Insecta	Graziosi
	Riehl			Vogel
vascularization			chromatophore	
Mammalia	Byskov		Amphibia	MacMillan
OVIDUCT			cilia	
Amphibia	Girard		Ciliata	Kink
Homo	Jirsova		early stages	
Mammalia	Jirsova		Insecta	Graziosi
OVIPOSITION			Mammalia	Johnson
see Egg(s)			Teleostei	Haarlem
see also Reproduction (sexual)			experimental study	
OVULATION			Insecta	Meer
see Egg(s)				Vogel
			feathers	
			Aves	Sengel
			genetics	
			Insecta	Kroeger
				Nusslein

IMAGINAL DISC		PHENOCOPIES		PINEAL ORGAN (& parpineal organ)	
Insecta	Kaurov Nubler Sprey	Angiosp Insecta	Haccius Capdevilla	Aves	Doskocil Marraro
limb				Cyclostom	Meiniel
Aves	Wolpert			Mammalia	Hewing
mechanism		PHOSPHORUS	Vertebrata		Collin
Acrasiales	Durston	see Chemical elements			Meiniel
Vertebrata	Horder				Oksche
mesoderm induction		PHOTOMORPHOGENESIS			
Amphibia	Boterenbrood	Angiosp	Mohr Schopfer Wagner Wellmann	PITUITARY	
neural plate				see Hypophysis	
Amphibia	Woellwarth				
ooplasmic segregation				PLACENTA(TION)	
Mollusca	Dongen			see also Blastocyst; Embryo-maternal relationships; Pregnancy	
position					
Aves	Curtis			autoradiography	
role of intersegm. region				Mammalia	Peters
Insecta	Nubler	Pteridoph Spermatoph	Lindenmayer	binucleate cells	
spacing			Lindenmayer	Mammalia	Steven
Cyanophyc	Wilcox			biophysics	
stability				Mammalia	Bara
Cephalop	Marthy			comparative study	
testis				Mammalia	Harrison Strauss
Homo	Posinovac			culture in vitro	
theoretical study	Lewis			Homo	Baker
				cytology	
				Mammalia	Taverne
				development	
				Mammalia	Bulmer Peel
				differentiation	
				Mammalia	New
				effect of chemicals	
				Homo	Jiricka
				Mammalia	Jiricka
				effect of fetectomy	
				Mammalia	Mohallal
				effect of mat. malnutrition	
				Mammalia	Bernocchi Fraschini Manfredi Porcelli Redi Scherini
				effect of ovariectomy	
				Mammalia	Legrand
				effect of prostaglandins	
				Mammalia	Mohallal
				endocrinology	
				Homo	Baker
				Mammalia	Colombo Okker
				enzymes	
				Homo	Gennser Kaufmann Vacek
				Mammalia	Mohallal Vacek
				growth	
				Mammalia	New
				histo- & cytochemistry	
				Homo	Jiricka Thiery
				Mammalia	Bielanska Jiricka
				malformations	
				Homo	Lemtis
				Mammalia	Jelinek

morphology		POLYAMINES		PRIMITIVE STREAK
Homo	Baker Preslickova Thiery Preslickova Taverne	see Amine(s)		see also Blastoderm
Mammalia		POLYEMBRYONY		
		Amphibia	Svyatogor	Amphibia
pathology		Aves	Lutz	Aves
Homo	Becker		Svyatogor	Tahka
Mammalia	Jiricka	Insecta	Koscielska	Vacek
physiology	Jiricka	Teleostei	Lutz	Mammalia
Homo	Guillet		Svyatogor	Vacek
Mammalia	Panigel Steven	POLYMORPHISM		PRIMORDIAL GERM CELLS
relation to fetus		Insecta	Hardie	see Germ cells (primordial)
Homo	Baur		Lees	
Mammalia	Baur		Rembold	PROLIFERATION
surface			Schmidt	see Mitosis
Mammalia	Thiriot		Truckenbrodt	
transplacental	carcinogen.		Winkler	PRONEPHRIC DUCT
Mammalia	Elger Wrba		Woyke	see Urogenital system
transport		POLYPEPTIDES		PRONEPHROS
Homo	Challier Guerre Nandakumaran	see Proteins		see Kidney(s)
Mammalia	Vacek	POLYPLOIDY		PROSPECTIVE MAPS
	Fickentscher Gulamhusein Hemmings Peters Vacek	Amniota	Vahs	see Embryology (experimental)
		Amphibia	Cayrol	
ultrastructure		Angiops	Turala	
Homo	Kaufmann Schiebler	Ciliata	Vahs	PROSTAGLANDINS
Mammalia	Vacek	Insecta	Kunz	
	Bielanska Mohallal Panigel Steven Vacek	Mammalia	Woyke	Mammalia
			Niemierko	Mercier
vascularization			Nadal	Mohallal
Homo	Harris Lemtis	POLYSACCHARIDES		Tuchmann
Mammalia	Harris Thiriot	see Carbohydrate(s)		
villi		POSTEMBRYONIC		PROTEIN(S) (incl. peptides & polypeptides)
Homo		DEVELOPMENT		
Mammalia		see Development (post-embryonic, fetal)		
		POTENCY		albumen
		see Embryology (experimental)		Aves
		see also Determination;		Carinci
		Pattern formation; Regulation		Gerlinger
		PREGNANCY		albumin
		see also Embryo-maternal		Amphibia
		relationships; Placenta(tion)		Abraham
				Weber
PLACODE(S)		Homo	Mammalia	autoradiography
see also Sense organs		Gebhardt		Amphibia
PLEURA		Lansdown		Brahma
see Body cavities		cabrol		Saag
POLAR BODIES		Colombo		
see Egg(s)		Lansdown		basic
POLARITY		Mercier		Echinoidea
see Gradient(s); Symmetry		Panigel		Backstrom
POLE CELLS		Tuchmann		casein
see Germ cells (primordial)		Wilson		Mammalia
POLLUTANTS		Teleostei		cell cycle
		Chambolle		Amphibia
				cell differentiation
				Amphibia
				Homo
				chromatin
				Aves
				Appleby
				Modak
				Cognetti
		Mammalia		Echinoidea
				chromosomal
				Amphibia
				Duprat
				Homo
				contractile
				Homo
				Mammalia
				control of regeneration
				Actinozoa
				Lenique
				Turbellaria
				Lenique
				cortico-steroid binding
				Aves
				crystallins
				Amphibia
				Aves
				Brahma
				Brahma
				Campbell
				Clayton
				Janssen
				Pritchard
				Starre
				Truman

Mammalia	Campbell Clayton McAvoy Malinina Platonov Pritchard Truman	Mammalia gene activation Insecta genetics Amphibia	Adamson Adinolfi Ish Beetschen Gasser Jaylet Goswami	polypeptides Actinozoa Turbellaria regeneration Amphibia	Lenicque Lenicque
degradation		Mammalia heat-shock		reticulin	
Mammalia	Paskin	Insecta hemoglobin	Ish	Homo	Posinovec
degradation product		Homo	Ramirez	reproductive system	
Mammalia	Hemmings	hemolymph	Papillon	Insecta ribonucleoprotein	Chen
development		Insecta imaginal disc	Blais	Insecta	Knust
Amphibia	Raghianti	Insecta	Mandaron	ribosomal	Euglenophyc
Echinoidea	Westin		Heesen	Insecta	Freyssinet
differentiation			Dhouailly	S-100	Fragoulis
Insecta	Duspiva		Sengel	Amphibia	Mitashov
DNA-binding	Rembold		Dhouailly	salivary gland	Sviridov
Insecta	Hansen	immunology	Dhouailly	Insecta	Eeken
early stages		Teleostei		soluble	
Amphibia	Brahma Darnbrough Romanovsky	keratin		Amphibia	Brahma
	Saag	Aves		Mammalia	Saag
Aves	Janssen	Mammalia	Goswami	spermatozoa	Skreb
	McMaster	Reptilia		Mammalia	Monesi
Crustacea	Modak	kininogenesis		synthesis	
Echinoidea	Hultin	Mammalia	Paskin	Amphibia	Mitashov
	Backstrom	liver		Aves	Janssen
	Giudice	Mammalia	ap Gwynn	theoretical study	Starre
Insecta	Immers	mammary gland			
Mammalia	Schnetter	Mammalia			Paskin
	Johnson	mitotic apparatus			
Teleostei	Petzoldt			tooth	Linde
egg	Kostomarova			transport to brain	Hemmings
elastin	Amphibia	muscle		Mammalia	Hemmings
	Brachet	Aves		transport to fetus	Wild
	Mammalia	Insecta		Mammalia	Hemmings
electrophoresis		nervous system		transport to milk	
Amphibia	Moczar	Aves		Mammalia	Hemmings
embryo	Bucci	nuclear		tumour	
		Amphibia		Mammalia	Serman
Aves	Janssen	Echinoidea		uterine	
	Starre	oocyte		Homo	Beier
environmental factors	Insecta	Insecta		Mammalia	Beier
	Papillon	oogenesis		venom	
experimental study	Amphibia	Amphibia		Mammalia	Gabriel
	Nedvidek	Echinoidea		vitellin	
	Romanovsky	Insecta		Crustacea	Charniaux
eye	Sladecek	oogenesis			Croisille
	Amphibia	Amphibia			Junera
	Mitashov	Amphibia			Meusy
	Sviridov	Darnbrough			
Aves	Janssen	Ficq			
	Starre	Ford			
Vertebrata	Mikhailov	Moreau			
fat body		Echinoidea			
Insecta	Papillon	organogenesis			
Fe metabolism		Mammalia			
Amphibia	Chalumeau	pattern			
Homo	Chalumeau	Insecta			
Mammalia	Chalumeau	Porifera			
fetal		Teleostei			
Mammalia	Serman	peptide			
fetoprotein	Skreb	Insecta			
		phosvitin			
Aves	Peters	Aves			
Homo	Janssen	physiology			
	Adinolfi	Mammalia			
	Seller	pineal organ			
	Serman	Vertebrata			
	Shoro				

REARING METHODS		culture in vitro		experimental study	
Brachyura	Ingle	Insecta	Bart	Annelida	Boilly
Crustacea	Castel	Turbellaria	Bulliere	Oligochaeta	Stephan
	Fincham		Baguna	Turbellaria	Schilt
	Williamson		Chandebois		Stephan
Lagomorpha	Beatty	cytology	Mouton	eye	Amphibia
Lamellibr	Le Pennec	Oligochaeta			Dabagian
	Le Roux	dedifferentiation			Korochkin
	Lucas	Amphibia	Harrebomee		Mitashov
	Prieur	determination			Sviridov
Polychaeta	Cazaux	Insecta	Bulliere	eye lens	Amphibia
REGENERATION (physiological)		differentiating cells	Baguna		Campbell
Amphibia	Martin	Turbellaria			Truman
Aves	Balkhonov	Amphibia	Harrebomee	factors	Horder
Gastropoda	Bergerard	Turbellaria	Le Moigne	Turbellaria	Baguna
REGENERATION (traumatic) see also Interstitial cells; Wound healing		digestive system	Mammalia	fate of tissues	Amphibia
Actinozoa	Van Praet		Timashkevich	gene control	Lheureux
Amphibia	Relexans			Insecta	Bulliere
Arachnida	Jacunski			general study	
Archiaann	Malikova	ear	Mammalia	head	Needham
Brachiopoda	Emig		Joseph	Turbellaria	Palladini
Mammalia	Relexans			histo- & cytochemistry	
Oligochaeta	Relexans		Turbellaria	Polychaeta	Thouveny
	Saussey	effect of drugs	Palladini	imaginal disc	
Phasmida	Bart			Insecta	Bownes
Phoronidea	Emig	Aves	Balakhonov		Dewes
Polychaeta	Di Grande	Mammalia	Joseph		Wilcox
	Malikova	Turbellaria	Barastegui	induction	
	Pfannenstiel			Hydrozoa	Muller
	Sabelli	effect of fasting	Turbellaria	inhibitor	
Porifera	Boury		Bautz	Oligochaeta	Marcel
	Korotkova			Turbellaria	Torok
Reptilia	Bellairs	effect of hormones		inner organs	
Turbellaria	Bautz			Mammalia	Ryabinina
	Kritchinskaya			involution	
	Tokin	effect of nervous system		Turbellaria	Bautz
autoradiography				irradiation	
Amphibia	Dabagian	Amphibia	Chapron	Turbellaria	Bautz
axial structures		Hydrozoa	Vannini	leaf	
Vertebrata	Hauser	Oligochaeta	Chapron	Angiosp	Neville
biochemistry		Turbellaria	Schilt		Woltz
Amphibia	Anton		Stephan		
	Vedder				
Hepaticae	Viell	effect of neurohormones			
Mammalia	Dyson				
	Mayer	Amphibia	Tognato		
Polychaeta	Coulon		Vannini		
	Thouveny	effect of neurosecretion			
biophysics					
Turbellaria	Tei	Hydrozoa	Vannini		
capacity			Turbellaria		
Turbellaria	Barastegui	Turbellaria	Tognato		
cell reprogramming			Vannini		
Polychaeta	Fontes	effect of neurotransmitters			
cellular basis					
Nemertea	Pedersen	Turbellaria	Franquinet		
chromosome					
Turbellaria	Deri	Oligochaeta	Pyliro		
connective tissue					
Turbellaria	Pedersen	effect of vascularisation			
control					
Hydrozoa	Schmid	Amphibia	Chapron		
contr. by first & sec. messeng.		Oligochaeta	Chapron		
Actinozoa	Lenicque	effect of venom			
Turbellaria	Lenicque				
		Mammalia	Cullen		
		elastic tissue			
		Mammalia	Moczar		
		embryo			
		Insecta	Fournier		
			Rogueda		
		endocrinology			
		Crustacea	Noulin		
		Insecta	Bart		
			Fournier		
			Rogueda		
			Desser		
			Hofmann		
		enzymes			
		Turbellaria	Le Moigne		
		epithelium			
		Mammalia	Joseph		

RESPIRATION
see also Metabolism

Angiosp	Ryczkowski
Asciadiacea	D'Anna
Aves	Dawes
Homo	Challier
	Guillet
Mammalia	Thiery
Teleostei	Clegg
	Braum

RESPIRATORY TRACT

Homo	Choffel
	Dollander

RETICULO-ENDOTHELIAL SYSTEM

see Macrophage system

RHESUS FACTORS

see Immunology

RIBONUCLEIC ACID

see also Nucleic acids

5s

	Amphibia	Ford
anucleate cell		
Chlorophyc	Schweiger	
calliphorin & drosophilin		
Insecta	Sekeris	
capping		
Echinoidea	Giudice	
	Pirrone	
	Sconzo	

cell differentiation

	Amphibia	Jacob
Homo	Jacob	
chromosomal		
Amphibia	Lacroix	
cytoplasmic		
Echinoidea	Giudice	
	Sconzo	

early stages

	Amphibia	Wall
Asciadiacea	Mansueto	
Echinoidea	Giudice	
	Pirrone	
	Rinaldi	
	Sconzo	
Hydrozoa	Muller	
Insecta	Buning	
	Schnetter	

effect on cell culture

Aves	McKenzie

effect on early stages

Aves	McKenzie

egg

Amphibia	Thomas
Asciadiacea	Farinella

embryo

Aves	Wylie

eye

Chondrostei	Baburina
	Mitashov
	Stroeva

gene

Aves	Wylie
imaginal disc	

Insecta	Tarroux
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informational
Amphibia
liver

Mammalia	Mutolo
messenger	Darnbrough
Amphibia	Clayton
Aves	Jackson
	McMaster
Mammalia	Modak
Teleostei	Thomson
	Truman
	Williamson

Crustacea	Kondo
Euglenophyc	Verdier
Homo	Jones
Insecta	Jones

Mammalia
metabolism

Aves	Desveaux
Insecta	Ineichen

mitochondrial

Echinoidea	Mutolo
Mammalia	Mutolo

nuclear

Amphibia	Angelier
Insecta	Schmidt
oocyte	

oogenesis

Amphibia	Wylie
ovary	

Insecta

	Mays
	Nagl
	Ribbert

regeneration

Amphibia	Burgess
Turbellaria	Le Moign.

regulation

Insecta	Sekeris
ribonucleoprotein	

Insecta

	DerkSEN

Amphibia

Aves	Thomas
Echinoidea	Wylie

Insecta

	Mischke
	Schafer
	Durante

Polychaeta

	Puccia

salivary gland

Insecta	Eeken
spermatozoa	

Mammalia

	Monesi

synthesis

Amphibia	Thomas
Insecta	Buning

transfer

Insecta	Kubli
Mammalia	Eliasson

translation

Insecta	Sekeris
translation in vitro	

Insecta

	Nellen

translational control

Acrasiales	Hames
transport	

Echinoidea

	Gezelius

Ford

Mutolo

Darnbrough

Clayton

Jackson

McMaster

Modak

Thomson

Truman

Williamson

Kondo

Lassak

Nellen

Sekeris

Weideli

Jones

Desveaux

Ineichen

Mutolo

Mutolo

Angelier

Schmidt

Wylie

Yylie

Denoulet

Ford

Mays

Nagl

Ribbert

Burgess

Le Moign.

Martelly

Sekeris

DerkSEN

Thomas

Wylie

Mutolo

Mutolo

Mischke

Schafer

Durante

Puccia

Eeken

Monesi

Thomas

Buning

Kubli

Eliasson

Sekeris

Nellen

Hames

Gezelius

RIBOSOMES

see Subcellular components

ROOT

see also Meristem

Angiosp

Dexheimer

Guillemonat

Gulluni

Lindenmayer

Neville

Santoro

SACCUS VASCULOSUS

SALIVARY GLAND

Homo

Posinovec

Danieli

Dennhofer

Eeken

Gadecker

Maehr

Vossen

Lawson

SCALE(S)

see also Skin

Insecta

Mauchamp

SEED (& Germination)

Angiosp

Douay

Neville

Ryczkowski

Schopfer

SELF-RECOGNITION

SEmen

see Reproduction (sexual)

SENESCENCE

see Age

SENSE ORGANS

see also specific organs;

Placodes

Amphibia

Brändle

Fox

Whitear

Annclida

Heimler

Aves

Saxod

Coelomata

Heimler

Insecta

Larinik

Hydrozoa

Schurmann

Mammalia

Saxod

Oksche

SERUM

see Blood

SEX CHROMATIN

see Nucleus

SEX DETERMINATION

see also Sexual development

Gastropoda

Gomot

Hydrozoa	Stagni	SEXUAL DEVELOPMENT	Mammalia	Bellairs
Insecta	Camenzind Nöthiger Went	see also specific sex organs; Reproductive system; Sex determination; Sex differentiation; Sex ratio; Sex reversal	Bugri洛va Konyukhov Mazhuga Pratt	Bugri洛va Konyukhov Mazhuga Pratt
Mammalia	Buehr Wolf Zenzes	Aves	Cuminge Dubois	Reptilia
Urodela	Wallace	Lamellibr Oligochaeta cryptorchidism	Lucas Saussey	SKIN
SEX DIFFERENTIATION	see also Sexual development	Mammalia	Straaten	see also Carapace; Epidermis; Integument; Pigment(ation); Wound healing
Amphibia	Ashby Cambar Collenot Di Grande Tognato Zaborski Zaccanti	endocrinology	Ashby	Amphibia
Aves	Limborgh Lutz Rashiedi Reyss	Amphibia	Tudose	Clemen Hanke Schultheiss
Cephalopoda	Di Grande	Homo	Swanson	Becchetti Carinci Desveaux
Crustacea	Juchault Legrand Martin Payen Touir	Mammalia	Ashby	Mauger Rinaudo Saxod Sengel Stabellini Suso Verna
Gastropoda	Andre	Teleostei	Fungi	Breathnach
Hydrozoa	Stagni Vannini	experimental study	Wessels	Homo
Insecta	Richard	genetics	hybrids	Rodentia
Mammalia	Balakier Burgoyne Byskov Colenbrander Drews McLaren Mestres Swanson Vilanova Wolf	Aves	Aves	Teleostei
Mollusca	Zenzes	monogeny	Deray Gomot	SKULL (& visceral skeleton)
Oligochaeta	Sabelli	inducing factors	Salzgeber	see also Chondrocranium
Polychaeta	Andre Lattaud Relexans	Crustacea	Juchault	Amniota
Teleostei	Hauenschild	sexual dimorphism	Cladocera	Amphibia
Turbellaria	Pfannenstiel Ashby	Cladocera	Gaino	Aves
SEX HORMONES	Tognato	SHELL (body covering)		Baehny
see Hormones	Vannini	see also Carapace		Limborgh
SEX RATIO				Nijweide
see also Sexual development				Tonneycck
SEX REVERSAL		Dinophyc	Netzel	Becker
see also Sexual development		Gastropoda	Meshcheryakov	Gathmann
Amphibia	Stagni		Thiriot	Iannello
Aves	Vannini		Vela	Slaby
Crustacea	Reyss	Lamellibr	Le Pennec	Doorenmaalen
Homo	Legrand	Rhizopoda	Netzel	Huber
Mammalia	Tudose			Kvinnslund
Teleostei	Drews	SHELL (eggs)		London
Turbellaria		see Egg coverings		Markens
		SHELL GLAND		Nijweide
		see Integument; Oviduct		Oudhof
		SHOOT		Tonge
		see also Meristem		
		Angiosp	Bopp	SOMATIC MUTATIONS
				see Genetics
		SHOULDER GIRDLE		SOMATIC RECOMBINATION
		see Skeleton		see Cell heredity
		SILK GLAND		
		Insecta	De Turenne	SOMITE(S)
		SKELETON		Amphibia
		see also specific parts;		Brustis
		Bone(s); Cartilage		Burgess
Amphibia	Stagni	Aves	Bellairs	Ivanov
	Vannini		Chevallier	Kordylewski
Aves	Reyss		Nardi	Christ
Crustacea	Legrand		Ruano	Curtis
Homo	Tudose		Suso	Fazekas
Mammalia	Drews		Thorogood	Ivanov
Teleostei	Sola	Homo	Bagnall	Jacob
			Becker	Lanot
			Gathmann	Menkes
			Mazhuga	Sandor
				Hauser

SPERMATOGENESIS

see also Gametes

Arachnida	Pijnacker
Insecta	Pijnacker
Mammalia	Abro
Platyhelminthes	Merkle
Teleostei	Hendelberg
Turbellaria	Zaitzev
anomalies	Farnesi
Homo	Posinovec
autoradiography	Riehl
biochemistry	Knust
Insecta	Monesi
comparative study	Deuterostomata
Invertebrates	Colombera
culture in vitro	Franzen
Mammalia	Monesi
descriptive study	Cestoda
Diploids	Bazitov
Insecta	Woyke
effect of various factors	Homo
Mammalia	Harrison
endocrinology	Harrison
Crustacea	Payen
environmental factors	Teleostei
Teleostei	Zaitzev
histo- & cytochemistry	Riehl
Cephalochordata	Stagni
Hydrozoa	Bernocchi
Mammalia	Fraschini
meiosis	Manfredi
Homo	Porcelli
Insecta	Redi
Teleostei	Scherini
microcinematography	Riehl
Insecta	Polani
molecular biology	Camenzind
Insecta	Camenzind
pathology	Mischke
Mammalia	Bernocchi
role of Sertoli cell	Fraschini
Mammalia	Manfredi
temperature	Porcelli
Mammalia	Redi
ultrastructure	Scherini
Ascidiae	Villa
Cephalochordata	Riehl
Hydrozoa	Stagni
Teleostei	Riehl

SPERMATOZOA

see also Gametes

chromatin	Echinoidea	Geraci
comparative study	Invertebrates	Franzen
cytology	Homo	Guedenet
effect of benzopyrene	Amphibia	Ceas
molecular biology	Mammalia	Monesi
motility	Homo	Brun
Invertebrates	Mammalia	Brun
pathology	Mammalia	Birch
ultrastructure	Ascidiae	Villa
Cnidaria	Chondrostei	Ginsburg
Mammalia	Mammalia	Birch
Diploids		Blom
Insecta		Wabik

SPERMIATION

see Spermatogenesis

SPINAL CORD

Amphibia	Kort
	Roberts
	Thors
Aves	Trevisan
	Ambrosi
	Camossa
	Mauger
	Mitolo
Teleostei	Marini

SPLEEN

Aves	Dieterlen
Mammalia	Kharlova

SPORE (& sporulation)

Bacteria	Seddon
Fungi	Zonneveld

STATIC ORGAN

Amphibia	Briegleb
	Neubert
Cyclostoma	Hagelin
Mammalia	Marty

STERILITY

see Fertility (& sterility)

STEROIDS

see also Cortisone; Hormone(s)

androgen

Homo	Sulcova
Mammalia	Kratochwil

antiandrogen

Mammalia	Bondi
	Marinelli
	Vagnetti

Vilanova

ecdysone

Crustacea	Blanchet
Insecta	Bulliere
	Eeken
	Koolman
	Lafont
	Mandaron
	Vijverberg

ecdysterone

Insecta	Fournier
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effect on conceptus

Homo	Gennser
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effect on egg & ovulation

Teleostei	Colombo
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effect on embryo

Mammalia	Cockcroft
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effect on gall bladder

Mammalia	France
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effect on genital duct

Aves	Rashedi
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effect on gonads

Aves	Scheib
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Homo	Ludwig
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Mammalia	Ludwig
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	Peters
--	--------

	Vilanova
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effect on implantation

Mammalia	Surani
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effect on mammary gland

Mammalia	Kratochwil
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effect on mouth

Mammalia	Luke
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effect on regeneration

Insecta	Bulliere
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Mammalia	Fournier
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effect on sexual development

Amphibia	Zaccanti
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effects on sexual different.

Amphibia	Ashby
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	Stagni
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Mammalia	Vannini
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embryo

Mammalia	Okker
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enzymes

Amphibia	Dupuis
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estrogens

Aves	Gabriel
------	---------

Homo	Gebhardt
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Mammalia	Colombo
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gonadal

Mammalia	Brinkmann
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metabolism

Vertebrates	Antila
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metabolism & binding

Homo	Sulcova
------	---------

oogenesis

Teleostei	Colombo
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placental

Mammalia	Okker
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production

Homo	Stark
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Mammalia	Stark
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receptors

Aves	Gasc
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synthesis

Mammalia	Lombard
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teratogenesis		myofilament	Cullen	Teleostei	Grun
Aves	Gabriel	Mammalia			Stefanelli
Mammalia	Gabriel	oocyte		TAIL	
	New	Insecta	Giorgi	see also Regeneration	
transplacental carcinogen.		relation yolk-membrane		(traumatic)	
Mammalia	Elger	Gastropoda	Wal		
STOLON		ribosomes		Amphibia	Brustis
see Asexual reproduction		Amphibia	Wall	Fox	
STOMACH		Euglenophyc	Freyssinet	Guardabassi	
Homo	Swain	Insecta	Fragoulis		
Mammalia	Morris	Mammalia	Lassak	TEMPERATURE	
	Timashkevich		Nellen	see also Environmental	
SUBCELLULAR COMPONENTS			Hach	factors	
see also Membrane			Virtanen		
biophysics			Wartiovaara		
Hydrozoa	Müller	role in development		Amphibia	Briegleb
cell differentiation		Amphibia	Bluemink	Arachnida	Mikulska
Insecta	Molen	surface organelles		Aves	Fischer
chloroplast		Ciliata	Jerka	Ciliata	Rusu
Angiosp	Street	SUBCOMMISSURAL ORGAN		Crustacea	Golinska
Chlorophyc	Schweiger	see Brain		Insecta	Legrand
Euglenophyc	Freyssinet	SUCKER			Bulyzhenkov
	Heizmann	see Gland(s)			Fourche
	Nicolas	SUGARS			Ivanov
	Nigon	see Carbohydrate(s)			Juberthie
	Salvador	SULPHYDRYL GROUPS		Mammalia	Mglinetz
	Verdier	Polychaeta	Brachet		Papillon
co-operation in morphogen.		SWIM BLADDER			Frankenhuis
Chlorophyc	Schweiger	see Lungs			Keith
early embryo		SYMBIOSIS			Lawrence
Gastropoda	Wal	see also Mycetome			New
egg		Coleoptera	Ressouches		Teleostei
Teleostei	Scriba	SYMMETRY (& asymmetry)			Zaitzev
enzymes		see also Gradient(s)		TENTACLE	
Insecta	Duspiva	Amphibia	Albert	TERATOGENESIS	
fibrils			Boterenbrood	(experimental)	
Ciliata	Kink		Hara	see also Anomalies (early	
Golgi complex			Nieuwkoop	development); Drugs; Mouth;	
Insecta	Giorgi		Ubbels	Malformations; Pathology;	
Polychaeta	Dhainaut		Clavert	Thalidomide; specific agents;	
lysosomes			Lutz	specific organs	
Amphibia	Decroly		Pautou		
	Guardabassi		Tickle		
	Steinert		Jerka		
	Simkiss		Meshcheryakov		
Aves			Verdonk		
membrane			Vreezen		
Mammalia	Kaluza		Biggelaar		
metamorphosis					
Insecta	Priester	SYNAPSE			
microfilament					
Amphibia	Gabrión	Amphibia	Baker		
	Geuskens		Stefanelli		
microtubule			Filogamo		
	Gabrión		Giacobini		
Echinoidea	Cognetti		Meller		
mitochondria			Robeuchi		
Amphibia	Bereiter		Sisto		
	Billett		Stefanelli		
	Lovtrup		Schurmann		
	Nelson		Baker		
Echinoidea	Rinaldi		Cochard		
Gymnosp	Willemse		Ilis		
myofibril			Marty		
Aves	Eppenberger		Meller		
	Heizmann				
	Pelloni				
	Beinbrech				
Insecta	Cullen				
Mammalia	Heizmann				

Aves	Landauer	irradiation	Horvath	TERATOLOGY
Homo	Van Toledo	Mammalia	Roux	see Anomalies (early development); Malformations
Insecta	Brun	kidney	Garcia	
	Bownes	Mammalia		TERATOMA(S)
Mammalia	Duke	lathyrism	Gerzeli	
	Beck	Amphibia	Lauthier	Aves
	Brun	limb	Salzgeber	Homo
	Cockcroft	Amphibia	Shoro	Mammalia
	Fickentscher	Aves		Salaun
	Horvath	Mammalia	Cockcroft	Gaillard
	Keith	mechanism		Graham
	Madjerek	Mammalia	Peters	Adamson
	Mercier	methods		Crnek
	Peters	Mammalia	Druga	Cudennec
	Roussel	micromelia		Evans
	Tuchmann	Mammalia	Menkes	Gaillard
chromosomal aberrations		necrosis	Capalnasan	Graham
Mammalia	Niemierko		Tosici	Lazard
chromosomes			Capalnasan	Papaioannou
Mammalia	Horvath			Salaun
culture in vitro		Mammalia	Palladini	Serman
Mammalia	Morriss	nervous system	Alexandru	Skreb
different agents		Amphibia	Checiu	Sobis
Mammalia	Smirnova	Aves	Wender	
early development				TESTIS
Amphibia	Burgess		Peters	
Mammalia	Morriss		neuromuscular	Mammalia
effect of culture in vitro			blocking agent	culture in vitro
Homo	Barnes		Mammalia	Abro
Mammalia	Barnes		Shoro	
effect of diabetes		potatoes		Drews
Mammalia	Deuchar	Mammalia		Wensing
effect of histidinaemia		Keith		
Mammalia	Campbell	preimplantation	Palladini	descent
effect of IUD		Mammalia	Alexandru	Mammalia
Homo	Hurst	Elbling	Checiu	development
Mammalia	Hurst	relation with fetoprotein	Wender	Mammalia
effect of weightlessness		Peters		endocrinology
Insecta	Briegleb			Aves
	Neubert	RNAse		Mammalia
environmental factors		Aves		histochemistry
Aves	Menkes	Lanot		Mammalia
Mammalia	Keith	role of neural crest		hybrid
exencephalus		Aves		Aves
Mammalia	Lendon	Keith		Gomot
experimental		Mammalia		Marchand
Mammalia	Amels	sensitivity		morphogenesis
	Sandor	Insecta		Mammalia
experimental study		Keith		Jantosovicova
	Mircov	spina bifida	Duke	Müllerian duct inhibitor
eye		Mammalia		Aves
Mammalia	Akhabadze	Lendon		Groenendijk
	Stroeva	supernumerary limb		mutant
face		Crustacea	Noulin	Mammalia
Mammalia	Lendon	temperature		Drews
food dyes		Aves	Fischer	pathology
Amphibia	Gulluni	Mammalia	New	Homo
head		teratogens		Mammalia
Aves	Schowling		Clayton	Posinovec
Mammalia	Schowling	Mammalia	de Pomerai	Blom
heart			Pritchard	pattern formation
Aves	Laane			Homo
	Los	trypan blue		physiology
	Roest	Aves	Ojeda	Aves
Mammalia	Laane	Mammalia		Gomot
	Los	ultrastructure	Clavert	Marchand
	Roest	Aves	Gabriel	Sertoli cells
hormones		venom		Mammalia
Aves	Faucounau	Mammalia		temperature
in vitro		virus		Mammalia
Mammalia	Thesleff	Homo	Groscurth	transplantation
		Mammalia	Groscurth	Mammalia
		vitamin	Lenden	Straaten
		Mammalia		
		xylene	Mankowska	
		Mammalia		

cell interactions		Mammalia	Blahser Mitskevich Wroblewski Young	epith.-mesench. interact.
Angiosp cell lineage	Lindenmayer			Mammalia Karcher Ruch
Angiosp	Lindenmayer			eruption Tonge
chemical turn over				experimental study
Aves	Dubois	THYROXINE		Homo Thylstrup
computer analysis	Bezem	Amphibia	Giroud Hartwig	Mammalia Thylstrup
	Raven	Aves	Faucounau	fluor Ilies
computer model	Ransom	Chondrostei	Davidova Dettlaff	Tewari
	Wilde	Mammalia	Mitskevich	function Josephsen
Aves	Mitollo	TISSUE(S)		Mammalia Beynon
computer simulation	Message	see also Chalones		Mammalia Gaillard
differentiation	Zotin	culture in vitro		incisor Josephsen
flowering		Aves	Heaysman Abercrombie	Mammalia Capuron
Angiosp growth	Lindenmayer		Deleanu Dunn	induction Kindahl
	Johnson		Dutton Dyer	involution Josephsen
Aves	Zotin		Heath Prelipeanu	morphology Wakita
Crustacea	Mitollo	Homo	Adinolfi Dutton	papilla Murbach
limb	Mocquard	Insecta	Dubendorfer Abercrombie	Schroeder
Aves	Mitollo	Mammalia	Dunn Dutton	physiology Tonge
mitosis	Harte		Heath	proliferation Mammalia
models		dynamics	Pexieder	Karcher Ruch
Angiosp	Lindenmayer	Aves	Dyer	pulp Murbach
multidimensional development		endocrinology		Schroeder
Aves	Lindenmayer	Aves	Croisille	regeneration Artis
Insecta	Lindenmayer	enzymes	Dutton	Mammalia Murbach
multivariate analysis	Johnson	Aves	Dutton	Schroeder
pattern formation	Lewis	Homo	Dutton	tissue interactions Thesleff
protein turnover	Paskin	Mammalia	Gumpel	Mammalia Thesleff
THORACIC CAVITY			Hydrozoa	ultrastructure Clemen
see Body cavities				Homo Thylstrup
THYMUS				TOXINS
Amphibia	Balls			see also Bacteria;
	Clothier			Teratogenesis
	Horton			
	Manning			
Aves	Jotereau			
Homo	Gaudecker			
	Groscurth			
Mammalia	Rembiszewska			
	Roszczynska			
	Abrunhosa			
	Fontaine			
	Groscurth			
	Kharlova			
	Tondury			
THYREOSTATIC AGENTS				
see Thyroid gland				
THYROID GLAND				
see also Thyroxine				
Amphibia	Gabriou	TOOTH (TEETH)		
	Campantico	ameloblast		
	Guastalla	Vertebrata	Wakita	
	Pehlemann	autoradiography		
	Schultheiss	Mammalia	Beynon	
Aves	Maraud	biochemistry		
	Stoll	Mammalia	Linde	
		calcification		
		Mammalia	Linde	
		culture in vitro		
		Amphibia	Capuron	
		Mammalia	Fejerskov	
			Josephsen	
			Thesleff	
		development		
		Amphibia	Chibon	
		Mammalia	Kindahl	
			Tonge	
		enamel		
		Homo	Thylstrup	
		Mammalia	Beynon	
			Josephsen	

**TRANSFER (blastocyst,
etc.)**

Mammalia Barnes
Brand
Checiu
Eckstein
Gulamhusein
Jirsova
Marston
Mercier
Roussel
Zeilmaker

TRANSPLANTATION
see also Immunology;
Nucleus

Mammalia Wroblewski
allograft rejection

Mammalia Steele

autoplastic

Mammalia Kvinnslund

biochemistry

Mammalia Robert

brain

Aves Baehny

cartilage

Mammalia Kvinnslund

cytoplasm

Amphibia

early embryo

Mammalia

head

Amphibia

heteroplastic

Aves

Mammalia

homoplastic

Aves

immunology

Amphibia

interspecific

Aves

limb

Amphibia

method

Aves

Mammalia

pineal organ

Aves

recognition

Mammalia

skin

Homo

Makinen

Mammalia

Raeckallio

tissue

Amphibia

xenoplastic

Amphibia

Aves

Deparis

Farinella

Chevallier

TROPHOBlast

see Blastocyst

TUMOUR(S)

see also Carcinogenetic agents;

Teratoma(s)

Amphibia Balls
Insecta Gateff
Mammalia Elbling

carcinogenesis in vitro
Mammalia Duke

comparative study
Mammalia Gaillard

culture in vitro
Homo Wolff

differentiation
Homo Rousseau

embryo transfer
Mammalia Barnes

embryonic
Homo Gaillard

embryonic carcinoma
Mammalia Crnek

epith.-mesench. interact.
Vertebrata Tarin

fetal enzymes
Mammalia Raftell

genetics
Insecta Gateff

germ cell
Mammalia Lazard

histology
Vertebrata Tarin

immunology
Aves Stenman

induction
Mammalia Vaheri

interact. with embr. cells
Homo Propper

Mammalia Propper
Salaun

neuroblastoma
Augusti

paraneoplastic phenomena
Lakshmi

Sherbet

pigment
Amphibia Hach

Homo Hach
Mammalia Hach

sarcoma
Aves Beug

susceptibility & resistance
Mammalia Barnes

transformation
Aves Beug

ultrastructure
Vertebrata Tarin

virus-induced
Mammalia Sobis

yolk sac
Mammalia Gaillard

Sobis

**TWINS (& other multiple
births)**

Homo Thiery

ULTIMOBRANCHIAL BODY

Aves Blahser

Thesingh

ULTRASOUND

see also Environmental factors

Aves Dyson
Mammalia Lutz
Dyson

ULTRAVIOLET IRRADIATION

Gastropoda Jura
Insecta Bownes
Kalthoff
Zissler
Mollusca Labordus

UMBILICAL CORD
see also Vascular system**URETER**
see Urogenital system**URINARY BLADDER**
see Urogenital system**URINARY SYSTEM**
see Excretory system**UROGENITAL SYSTEM**
see also Excretory system;
Genital tract;
Reproductive system

Amphibia Ruano
Aves Cambar
Mammalia Dunker
Gabriel
Madjerek
Pleeging
Tejedo
Teleostei Ramsay

UTERINE TUBE
see Oviduct**UTERUS**

Mammalia Brun
biophysics

Mammalia Naaktgeboren

decidua
Homo Hoyes
Mammalia Madjerek

endocrinology
Mammalia Surani
endometrial secretion

Mammalia Choroszewska
immunology

Mammalia Bulmer
Mammalia Peel

implantation
Mammalia Surani

perinatal
Mammalia Naaktgeboren

physiology
Mammalia Bontekoe
Naaktgeboren

secretions
Mammalia Eckstein

stem cell
Mammalia Surani

ultrastructure
Homo Hoyes
Mammalia Gulamhusein

VAGINA
see Genital tract

VASCULAR SYSTEM
see also Circulation; Heart (& great vessels); specific organs, etc.

Aves Pexieder
Rickenbacher
Roncali
Homo Kocova
Makinen
Mazhuga
Raekallio
Mammalia Woollam
Abrunhosa
Beccchetti
Bugge
Chapron
Knudsen
Makinen
Mazhuga
Pexieder
Raekallio
Woollam

VASCULAR TISSUE

Angiosp Amer
Neville
Gymnosp Denne

VASCULARIZATION
see specific organs, etc

VEGETATIVE GRADIENT
see Gradients
see also Embryology (exper.); Embryology (physiological)

VEGETATIVE NERVOUS SYSTEM
see Autonomic nervous system

VERTEBRAE (vertebral column)

Aves Chevallier
Christ
Jacob
Lanot
Strudel
Mammalia Theiler
Vertebrata Hauser

VIRUS(ES)

Aves Kilarski
Beug
Legrand
Grocurth
Kistler
Tondury
Mammalia Both
Grocurth
Kistler
Lansdown

VISCERA

Mammalia Babayeva
Sidorova
VISCERAL SKELETON
see Skull (& visceral skeleton)

VITAL STAINING

VITAMIN(S)

Mammalia Lendon
Peters

VITELLINE MEMBRANE
see Egg(s)

VITELLOGENESIS
see also Yolk

Amphibia Giorgi
Ragghianti
Van Gansen

Aves Bellairs
Crustacea Blanchet

Gastropoda Charniaux
Insecta Croisille
Teleostei Johannisson
Junera
Meusy
Zerbib
Bottke
Bilinski
Giorgi
Riehl

VIVIPARITY

Reptilia Wilson
Teleostei Benedetti
Gotting
Tcherniaev

WATER

Insecta Chauvin

WING(S)

Aves Amprino
Camosso
Insecta Bart
Browaeys
Lindenmayer
Vreezen

WOLFFIAN DUCT
see Urogenital system

WOUND HEALING

Aves Efimov
Thevenet
Homo Makinen
Raekallio
Viljanto

Insecta Bohn

Mammalia

Andersen
Efimov
Fejerskov
Kopeć
Makinen
Raekallio
Pedersen

Turbellaria

XANTHOPHORES
see Chromatophore(s)

X-IRRADIATION

see also Irradiation; Radio-mimetic agents

Amphibia

Alexandre
Di Grande
Jaylet
Peters

Arachnida

Tempelaar
Aves Beupain
Fischer

Chondrostei

Chmilevsky
Faleeva
Gureeva
Persov

Mammalia

Sakun
Zubova
Alexandre
Baker
Berry

Teleostei

Lierse
Chmilevsky
Faleeva
Gureeva
Persov

Turbellaria

Sakun
Zubova
Bautz

YOLK

see also Egg; Nutrition;
Vitellogenesis

Amphibia

Decroly
Giorgi
Ignatjeva

Aves

Steinert
Carinci
Caruso

Cephalopoda

Fioroni
Raineri

Crustacea

Albanese
Bolognari

Gastropoda

Bottke
Fioroni
Wal

Insecta

Zaccone
Giorgi
Grodzinski

Reptilia

Fioroni
Heesen

Teleostei

Ignatjeva

YOLK SAC

see Embryonic membranes

INTERNATIONAL ORGANISATIONS AND FACILITIES

The Hubrecht Laboratory (International Embryological Institute) (for address see page 2 of this issue)

Individual guest workers from all countries are welcome at the Laboratory. Partial financial support is available in special cases only.

Annual Progress Reports are available on request. They are in English and summarise the current research of the staff and guest workers (both Dutch and foreign).

Persons interested in receiving reprints of the Laboratory's publications may ask to be placed on the Mailing List. They will receive a reprint check list at regular intervals.

The Laboratory offers the following international facilities:

a) *The Central Embryological Collection*, containing embryonic material of man, many mammals, and all other vertebrate classes, some of it very rare. Details will be supplied on request. A catalogue in book form is available.

b) *The Central Embryological Library*, an extensive reprint library covering the entire field of developmental biology, with documentation and bibliographical services attached. Details will be supplied on request.

c) *International Research Groups in Developmental Biology*. Aim: to stimulate research in developmental biology by introducing young scientists from different countries into the field and enabling them to engage in practical international co-operation. Age limit 35, maximally 12 members. The ninth Research Group will probably be held in the first half of 1979 or 1980.

International Society of Developmental Biologists (Developmental Biology section of the I.U.B.S.)

The I.S.D.B. organises an International Embryological Congress once every four years (IXth Congress to be held in 1981), as well as one or two regional Symposia every year. Members receive a Developmental Biology Newsletter. International Secretary: Nicole LeDouarin, Institut d'Embryologie du C.N.R.S. et du Collège de France, 49bis av. de la Belle Gabrielle, 94130 Nogent-sur-Marne, France. Secretary-Treasurer: M. Spiegel, Department of Biological Sciences, Dartmouth College, Hanover, NH 03755, U.S.A. Membership close to 600. Membership list follows below.

International Society of Differentiation

This society holds triennial conferences, the next one being scheduled for August-September 1978 in Minneapolis. Secretary: R. G. McKinnell, Dept. of Genetics and Cell Biology, University of Minnesota, 250 BioScience Center, St. Paul, MN 55108, U.S.A.

European Developmental Biology Organization (E.D.B.O.)

The Organization was provisionally established in 1976. At present it encompasses some ten national Societies or Sections for Developmental Biology, as well as ca. 100 individual members in other countries in Europe and the Middle East. For the time being its main purpose is to disseminate information and to co-ordinate scientific meetings. Provisional Secretary/Treasurer: J. McKenzie, Dept. of Developmental Biology, University of Aberdeen, Marischal College, Aberdeen AB9 1AS, Scotland, U.K.

Other Collections of Embryos available for study

a) *Carnegie Embryological Collection*

Man, other Primates, some Insectivora. Address: R. O'Rahilly, Carnegie Laboratories of Embryology, University of California, Davis, CA 95616, U.S.A.

b) *Cornell University, Ithaca*

Sectioned embryos and slides; *Homo, Bos, Canis, Felis*, etc. Address: H. Evans, Department of Anatomy, New York State College of Veterinary Medicine, Cornell University, Ithaca, NY 14853, U.S.A.

c) *Zoology Museum, Madison* (formerly: *Mossman collection*)

Wet specimens and slides; mammals, primarily fetal membranes and male and female reproductive tract. Address: Zoology Museum, 415 Noland Zoology Building, 250 North Mills St., Madison, WI 53706, U.S.A.

d) *Hochstetter Collection, Wien*

Human embryos. Address: W. Zenker, Anatomisches Institut der Universität Wien, Währingerstrasse 13, Wien IX/68, Austria.

Membership List of the International Society of Developmental Biologists

This list was drawn up by the Secretary-Treasurer on September 1st, 1977. Full addresses of most of the European members can be found in the Directory of Names and Addresses in this issue. Full addresses of most members from countries outside Europe will appear in vol. 17 pt. 2.

* emeritus members

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BOOK NOTICES

Most of these notices are descriptive rather than critical. Their main aim is to provide an idea of the scope and potential usefulness of the books. All notices (unless signed) are written by the editor; if necessary he solicits the opinion of the staff of the Hubrecht Laboratory or of other specialists.

Dissertations, some research monographs, and other works of a very specialized nature or written in languages not generally known, are usually provided with brief annotations only.

Various types of books are distinguished according to the following criteria:

Treatises: large comparative or systematic works, incl. serial publications

Textbooks: incl. "readers", introductions, compendia, practical manuals, etc.

Monographs: incl. collections of reviews, essays, atlases etc.

Dissertations: academic theses

Symposium reports: incl. reports of congresses, conferences, meetings, etc.

Collections of papers: containing original research papers by various authors, or reprintings of papers by one author

Books of readings: containing reprintings of papers by various authors

Reference works: incl. glossaries, data books, source books, etc.

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GENERAL DEVELOPMENTAL BIOLOGY (see also 46, 86, 94, 99)

Textbooks

1.

N. J. BERRILL and G. KARP. 1976. DEVELOPMENT

McGraw-Hill, New York, etc. X, 566 pp., 332 figs., 3 tabs., subject index. \$ 15.95,
£ 10.85

This text can be conveniently contrasted with Berrill's "Developmental Biology" issued by the same publisher in 1971. The present book is more conventional in the arrangement of its subject matter but the scope is similar and it is equally excellent in its way. Perhaps this book is more suitable for the usual type of developmental biology course.

The treatment is beautifully balanced and integrated and the style is fluent and captivating. Equal attention goes to structural, cellular and molecular aspects, and the integration of the organism is emphasised throughout. Examples from the world of plants are restricted. Special features are separate chapters on the immune system, malignancy, aging, metamorphosis, regeneration, and asexual development. (Two subjects that are conspicuously lacking are germ cell determinants and induction in the amphibian blastula.) There is a most useful brief appendix on the sophisticated modern methods in use today.

The illustrations, many of which are the same as in the earlier book, are well chosen, have good captions, and are well reproduced. The reading lists at the end of all chapters are excellent.

2.

C. F. GRAHAM and P. F. WAREING, eds. 1976. THE DEVELOPMENTAL BIOLOGY OF PLANTS AND ANIMALS

Blackwell, Oxford, etc. XII, 393 pp., 238 figs., 33 tabs., combined subject and taxonomic index. £ 7.75 (paper)

Contents (abridged): Part 1, The origin of cell heterogeneity in early development; Part 2, Determination and pluripotentiality; Part 3, Cell interactions in development; Part 4, Hormonal control of development; Part 5, The molecular biology of development; Part 6, Environmental control of development. (23 chapters)

This is the first unified account of plant and animal development written for advanced undergraduate and graduate courses, at least in English. It was written by 20 predominantly British authors, established authorities as well as younger people. The starting point in selecting topics was that they would be treated in depth rather than giving comprehensive coverage at a general level; hence, topics were chosen both for their general bearing and for the amount of well-established information available on them. The editors have been very successful in integrating the chapters by introducing and summarising the

Parts by extensive cross-referencing. Although there remain differences in style among the chapters, the result is a very readable and stimulating whole. The relatedness of plant and animal data is very well brought out throughout the text. Moreover, the treatment is as up to date as can be desired in such a collaborative undertaking.

Of course there always remain grounds for criticism. In one of the areas with which this reviewer is most familiar, it has been obvious to him that the author of ch.3.6 (Pattern formation in animal embryos) is not intimately acquainted with amphibian embryogenesis or its literature. This is most apparent in his neglect of mesoderm induction in the blastula, a phenomenon discovered by Nieuwkoop and others about a decade ago. (Although the chapter contains interesting ideas it is written in a rather out-of-the-way manner.) The same criticism applies to ch.3.4 (Embryonic induction), which has a somewhat parochial reference list; moreover, it uses the important notion of competence but fails to define it.

The numerous illustrations, both photographs and drawings, have good captions and add greatly to the value of the text; some of the diagrams are feats of didactic clarity. The index is extensive.

3. P. J. HOGARTH. 1976. VIVIPARITY

Arnold, London. *Studies in Biology* no. 75. IV, 68 pp., 24 figs., 2 tabs. £ 3.00 (cloth), £ 1.50 (paper)

This is a selective but useful survey of the very varied types of viviparity found in many vertebrate groups as well as invertebrates. Ovoviviparity is included because it cannot be distinguished reliably from true viviparity. The line drawings are very simple and often insufficiently labelled. There is a glossary pertaining to reproductive hormones and a useful reading list.

4. A. C. NEVILLE. 1976. ANIMAL ASYMMETRY

Arnold, London. *Studies in Biology* 67. IV, 60 pp., 51 figs., 5 tabs. £ 2.60 (cloth), \$ 1.30 (paper)

This little book is fun to read and, though far from exhaustive, gives many interesting examples of morphological, developmental and functional asymmetries. However, it is too synoptic and too incompletely documented to perform a useful function for the researcher. It raises many questions but hardly begins to provide the answers. The illustrations are simple but adequate.

5. F. SEIDEL. 1975-1976. ENTWICKLUNGSPHYSIOLOGIE DER TIERE. II and III. 2nd. ed.

de Gruyter, Berlin, etc. Sammlung Göschen Band 2601, 2602
Band II (1975) Bildung der Körpergrundgestalt. 238 pp., 47 figs., author and subject indexes. DM 19.80 (paper)
Band III (1976) Morphologische und histologische Differenzierung der Organe. 199 pp., 33 figs., author and subject indexes. DM 19.80 (paper)

The first part (1972) of this three-part text was reviewed in *Gen. Embryol. Inf. Serv.* 15, 2, 1974. The laudatory first paragraph of that review on the whole applies equally to the present two books, yet this reviewer feels more critical about them. The major subdivisions of the original book, which is now almost a quarter of a century old, have been retained, and because the incorporation of newer data has been erratic the books definitely impress one as somewhat dated.

Although the presentation of the older data remains excellent, there are curious gaps in the newer data. To mention a few examples: modern work on gradients in insects is

not represented; there is no mention of mesoderm induction in the amphibian blastula; the data on imaginal discs are mostly very old and data on homoeotic mutants are lacking; the information on polar granules in insects is scanty; and cellular metaplasia in amphibian lens regeneration is not mentioned. The selective reference list of some 260 titles reflects these and other gaps.

The books are well illustrated and have good glossaries.

Monographs

6.

D. H. O'DAY and P. A. HORGAN, eds. 1977. EUKARYOTIC MICROBES AS MODEL DEVELOPMENTAL SYSTEMS

Dekker, New York, etc. Microbiology Series vol.2. XIV, 440 pp., 116 figs., 41 tabs., author index, combined subject & species index. SFr. 130.00

Contributors: Dingle, Durston, Francis, Haber, Horgen, Johnson, Kochert, LéJohn, LeStourgeon, Loomis, Lovett, O'Day, Sutter, Thompson, Van Etten, Wright, Yuyama

This volume shows convincingly how much primitive eukaryotic organisms are already contributing to the solution of several basic problems of development, and how great is their potential. It is a series of reviews of current research by predominantly American and Canadian authors, and can be recommended to all developmental biologists, including those preparing courses or books.

The 17 chapters deal with a great variety of "microbes" (in a very broad sense): various unicellular organisms, a colonial alga, true and cellular slime moulds, and various fungi. The chapters are arranged in three parts, each preceded by a brief editors' introduction which places them in a general perspective and facilitates reading by non-specialists.

Part I (Growth and cellular differentiation, 9 chapters) deals with genetic analysis of development, transcription, and enzyme accumulation and function. Part II (Cell communication and morphogenesis, 4 chs.) discusses four different types of effectors: glycoproteins, terpenoid and steroid hormones, and cyclic nucleotides. Part III (Dormancy and germination, 4 chs.) considers membrane behaviour, extracellular enzymes, and macromolecular synthesis.

The book is produced in good offset print but has relatively few illustrations, in view of which the price seems excessive.

Books of readings

7.

C. FULTON and A. O. KLEIN. 1976. EXPLORATIONS IN DEVELOPMENTAL BIOLOGY

Harvard Univ. Press, Cambridge, Mass., etc. XVI, 704 pp., numerous figs. and tabs., subject index (including authors of papers). \$ 17.50, £ 11.90

Contents: Introduction; Phenotypic change with genotypic constancy (4 papers); Development as a problem of differential gene function (8); From protein synthesis to ordered structures (10); Multicellularity; cell interactions in development (13); Cell differentiation (19); Development beyond the embryo (5)

Rather than producing another standard text the authors have chosen to assemble a large number of original research papers in facsimile print, linking them up with much background material and sometimes extensive comment. They have tried to make the book readable for students with one year of general biology and genetics. Although it is always possible to disagree about details of selection and omission, the present reviewer found their approach stimulating, their coverage admirable, and their editorial efforts on the whole successful.

The six main sections listed above are subdivided into 22 chapters. In most of these the

papers range from the late fifties or early sixties to the early seventies. The oldest papers are those by Spemann and Mangold ('24), Waddington, Needham and Needham ('33), and DuShane ('35). The last main section has chapters on the genesis of neural connections and on autonomous growth in plants (crown-gall tumour). Most of the research papers are on current animal developing systems, but there are also papers on *Lilium* (anthers), *Blas-tocladiella* (spore germination), *Dictyostelium* (enzyme programmes), and various unicellular organisms and bacteriophages (self-assembly). Mammalian embryos are only considered in connection with the clonal origin of melanocytes.

The book is attractively produced. The editorial sections have their own very good illustrations.

THEORETICAL AND MATHEMATICAL DEVELOPMENTAL BIOLOGY (see also 20, 21,107)

Symposium reports

8.

S. A. LEVIN, ed. 1974. SOME MATHEMATICAL QUESTIONS IN BIOLOGY. VI Amer. Mathem. Soc., Providence, R. I. Lectures on Mathematics in the Life Sciences, vol. 7. VI, 232 pp., 69 figs.

It is a pity that these volumes are not widely publicised and therefore reach us very late. Much of the material may therefore by now be superseded. We will content ourselves with briefly enumerating those contributions that might still be of interest to our readers.

The first is a long article by Zeeman on primary and secondary waves in developmental biology. He applies the now much debated catastrophe theory to embryogenesis in amphibians and to slime mould culmination. Gierer and Meinhardt discuss pattern formation involving "lateral inhibition" and outline several possible biological applications. Blomfield (from Lawrence and Crick's group) presents a diffusion model of pattern formation in the insect cuticle. Finally Kopell and Howard discuss "pattern formation" in the Belousov (or Zhabotinskii) reaction, a non-biological oscillating system.

9.

A. LINDENMAYER and G. ROZENBERG, eds. 1976. AUTOMATA, LANGUAGES, DEVELOPMENT
North-Holland, Amsterdam, etc. VIII, 529 pp., 147 figs. Dfl. 120.00, \$ 46.00

This volume is the result of an international conference held in the Netherlands in the spring of 1975. In it took part biologists, mathematicians and computer scientists from many different countries, predominantly in Western Europe. Of the 38 contributions seven are reviews and the rest research reports.

The papers are arranged in four parts as follows: Mathematical and computer models of development (12 papers), Theory of L systems (17), Cellular automata theory (3), and Parallel graph generating and related systems (6). Almost all of the papers of direct developmental relevance are to be found in part one. These cover not only branching systems in plants but also a variety of animal developing systems and growth phenomena generally. Two or three papers in the other parts have some relevance to development beyond the strictly mathematical. Part four represents a very new field of research, which may be the first step towards the application of L systems in more than one dimension, in other words, to more complex patterns than those characteristic of linear branching structures.

PLANT DEVELOPMENT (general) (see also 2,6)

Treatises

10.

W.BRAUNE, A.LEMAN and H.TAUBERT. 1976. PRAKTIKUM ZUR MORPHOLOGIE UND ENTWICKLUNGSGESCHICHTE DER PFLANZEN, zur Einführung in den Bau, das Fortpflanzungsgeschehen und die Ontogenie der niederen Pflanzen und die Embryologie der Spermatophyta

Fischer, Jena. 448 pp., 128 figs., subject and taxonomic indexes. 37.00 M., DM 39.00

This is an enormously rich work. Although conceived as an educational aid, it will also be very useful as a reference work for researchers, particularly because of the illustrations and the wealth of practical information it contains. Some 600 plant genera and species are described or at least mentioned in the book, all of them forms that are easily available in nature.

The subject matter is arranged strictly taxonomically, beginning with the bacteria and ending with the angiosperms (forms lower than the spermatophytes occupy more than 80% of the volume). The mode of treatment is dictated by practical considerations and varies according to the relative emphasis on e.g. phylogenetic and ontogenetic viewpoints, wealth of forms, ecological relationships or economic significance. Most of the 30-odd subdivisions are preceded by a brief theoretical section, often including a review of the taxonomy and/or a determination key.

All the illustrations are original. The main figures are either beautiful line drawings or plates consisting of hundreds of mostly excellent photographs taken with a variety of techniques. In addition, numerous good line drawings and diagrams in the page margins serve to clarify the text. The book is very cheap for its high standard of production.

Textbooks

11.

S. S. BHOJWANI and S. P. BHATNAGAR. 1975. THE EMBRYOLOGY OF ANGIOSPERMS

Vikas, New Delhi, etc. XIV, 264 pp., 170 figs., 19 tabs., combined author, taxonomic and subject index. Rs 14.25 (paper)

The first edition of this book appeared in 1974 and was reviewed in Gen. Embryol. Inform. Serv. 16, 2, 1976. For the present edition the text has been completely revised but there are no major changes. Some photographs have been replaced by line drawings.

12.

H. E. STREET and H. ÖPIK. 1976. THE PHYSIOLOGY OF FLOWERING PLANTS: their growth and development. 2nd edit.

Arnold, London. A series of student texts in contemporary biology. VIII, 280 pp., 96 figs., 14 tabs., combined author, taxonomic and subject index. £ 9.00 (cloth), £ 4.50 (paper)

The first edition of this book appeared in 1970 and was reviewed in Gen. Embryol. Inf. Serv. 14, 1971. The book has been updated and also extended particularly in the parts dealing with development. The original 39-page chapter on Morphogenesis and development has been replaced by two chapters, one on Vegetative development and one on Reproductive development (together 54 pp.). There are now separate sections on apical dominance, bud dormancy, and photomorphogenesis.

Some new illustrations have been inserted and the reading lists have been updated.

13.

J.A. BRYANT, ed. 1976. MOLECULAR ASPECTS OF GENE EXPRESSION IN PLANTS
Academic Press, London, etc. Experimental Botany: An International Series of Monographs, vol. 11. X, 338 pp., 113 figs., 25 tabs., combined species and subject index.
£ 9.60, \$ 21.00

Contents: 1. Nuclear DNA (Bryant); 2. RNA structure and metabolism (Grierson);
3. Protein synthesis (Bray); 4. Nucleic acids and protein synthesis in chloroplasts and
mitochondria (Bryant); 5. The cell cycle (Bryant); 6. Molecular aspects of differen-
tiation (Bryant); 7. Plant growth substances (Trewavas)

This book is stated to be the first to deal specifically with this subject, and arose out of a much-felt need. It is written by a team of British experts and will be of great use to graduate students, research workers and lecturers.

The last three chapters are of most immediate interest to our readers. Together they occupy 122 pages. Ch.6 is very selective and concentrates on examples that clearly illustrate general principles and current hypotheses. Ch.7 is concluded by a new unifying hypothesis that relates the effects of plant growth substances to membrane physiology. All chapters are well written and adequately cross-referenced. All have a brief list of suggestions for further reading.

The bulk of the references are brought together in a bibliography of close to 550 titles which runs far into 1975. The book is well produced and illustrated mainly with dia-grams and graphs. Much material is condensed into useful tables.

14.

M. E. CONKLIN. 1976. GENETIC AND BIOCHEMICAL ASPECTS OF THE DEVELOP-
MENT OF DATURA

Karger, Basel, etc. Monographs in Developmental Biology Vol. 12. X, 170 pp., 13 figs.,
4 tabs., author and subject indexes. SFr. 75.00, DM 75.00, ca.\$ 29.00 (paper)

The author of this monograph has been familiar with the genus *Datura* for over 30 years. The book is a well-organised review of almost all that is known of the herbaceous species of this genus, with emphasis on the advances of the last 15 years.

Of the 12 chapters we mention The *Datura* life cycle (26 pp.), Embryogenesis *in vitro* (8 pp.), Androgenesis and the production of haploids (11 pp.), *In vitro* culture of tissues or cells (3 pp.), Factors affecting growth and development (11 pp.), Abnormal tissue development and tumorisation (8 pp.), and Isozymes (7 pp.). The ontogeny of alkaloids is also reviewed.

The book is scantily illustrated but has some good photographic plates. The bibliog-raphy of over 400 titles runs well into 1974.

15.

H. van den ENDE. 1976. SEXUAL INTERACTIONS IN PLANTS, the role of specific
substances in sexual reproduction

Academic Press, London, etc. VIII, 186 pp., 38 figs., 26 tabs., combined subject and
taxonomic index. £ 7.80

Inasmuch as sexual reproduction involves the differentiation of sex organs and sex cells, the subject of this monograph belongs to developmental biology. The book is intended as an introduction for students but will certainly be of interest to investigators. The author, who has worked in the area for a decade or more, devotes special attention to the molecular aspects both of hormone-mediated and cell-to-cell interactions.

A lengthy introductory chapter places the subject in perspective and devotes consider-able attention to hormone receptors and cell surface constituents in animal systems. The

rest of the book is taken up by a series of chapters of varying length which examine specific groups or species separately: Fungi (3 chapters), yeasts (1), algae (4), ferns (1), and flowering plants (1).

The book is well produced and has good illustrations, both line drawings and photographs. The bibliography contains more than 350 titles and is up to date until early 1975.

16.

M. LUCKNER, L. NOVER, and H. BÖHM. 1977. SECONDARY METABOLISM AND CELL DIFFERENTIATION

Springer, Berlin, etc. Molecular Biology, Biochemistry and Biophysics, vol. 23. VI, 130 pp., 52 figs., 7 tabs., subject index. DM 48.00, \$ 21.20

The bulk of this book consists of an interesting review of some 80 pages by Luckner and Nover (Halle, DDR) entitled Expression of secondary metabolism- An aspect of cell specialization of microorganisms, higher plants, and animals. It deals with what may be broadly called differentiation programmes (with special reference to the formation of the enzymes of secondary metabolism), their effectors, and their temporal integration. Although the majority of the evidence reviewed is derived from microorganisms and plants, some animal examples are also discussed. The references from the international literature cover 20 pages and are up to date until early 1976.

The second review by Böhm (Halle, DDR) discusses the secondary metabolism of cultured plant cells and the problem of why these often fail to form secondary substances. The bibliography of this article contains many recent publications in German.

The book is produced in good offset print and is illustrated mainly with graphs.

17.

V. RAGHAVAN. 1976. EXPERIMENTAL EMBRYOGENESIS IN VASCULAR PLANTS

Academic Press, London, etc. Experimental Botany; an International Series of Monographs, vol.10. X, 603 pp., 156 figs., 17 tabs., author, taxonomic and subject indexes. £ 21.00, \$ 46.00

This is the first book to be devoted entirely to this subject and it is likely to be the major survey and reference work for many years. The author has been actively involved in research in this field for over a decade and therefore writes with authority. Because he knows the whole literature he is able to point out the major (and indeed large) gaps that still exist in our knowledge.

The book is in three sections, the first of which is entitled, From egg to embryo and occupies about three quarters of the book. The first five chapters review the structural, biochemical, growth and nutritional aspects of embryogenesis. The remaining six chapters then deal with *in vitro* studies, various aspects of the control of embryogenesis, and applied aspects of embryo culture. Section Two (62 pp.) deals with diploid and haploid adventive embryogenesis, and Section Three (46 pp.) with seed dormancy and germination viewed as a problem of the auto-inhibition of growth. An appendix lists 18 of the most commonly used media for embryo culture.

The book is profusely illustrated with good line drawings and photographs (some of the electron micrographs are too darkly reproduced). The bibliography of close to 2.000 entries contains many titles in languages other than English and is up to date until 1974.

L. W. ROBERTS. 1976. CYTODIFFERENTIATION IN PLANTS, xylogenesis as a model system
 Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biology Series vol. 2.
 XIV, 160 pp., 34 figs., 3 tabs., combined taxonomic and subject indexes. £ 8.00

Contents: 1. Cytodifferentiation in perspective; 2. Historical survey of xylem differentiation studies; 3. Hormones in primary xylem differentiation; 4. Role of the cell cycle; 5. Regulation of secondary xylem differentiation; 6. Ultrastructural studies of differentiating xylem elements; 7. Nutritional factors; 8. Environmental influences; 9. Chemical inhibitors and cytodifferentiation; 10. Epilogue

This monograph by a distinguished authority examines the differentiation of one particular cell type from as many angles as possible, with the emphasis on the cell biology of the process. The treatment is critical but not exhaustive; most of the attention goes to internal control mechanisms as against environmental factors, which are probably not critical variables. Because the author places his subject in the broad perspective of developmental biology as a unified science, the book will be read with interest by zoologists.

The table of contents speaks for itself. The bibliography numbers over 600 titles and goes into early 1974. The Epilogue is concluded by a 5-page section highlighting some recent developments, complete with references going into 1975.

The book is well produced and illustrated mainly with very good photographs from many different primary sources.

19.

H. SMITH. 1975. PHYTOCHROME AND PHOTOMORPHOGENESIS, an introduction to the photocontrol of plant development
 McGraw-Hill, London. XVI, 235 pp., 107 figs., 23 tabs. £ 7.95, \$ 22.00, DM 45.20

Although this book was published more than two years ago we briefly mention it for the benefit of our readers. The book has been well received in the scientific press. The term photomorphogenesis is taken in a narrow sense, excluding phototropism and photoperiodism. The former subject is nevertheless treated in some detail; the latter is not covered, and the reader is referred to a companion volume by Vince-Price (1975), which was reviewed in *Gen. Embryol. Inform. Serv.* 16, 2, 1976.

20.

J. H. M. THORNLEY. 1976. MATHEMATICAL MODELS IN PLANT PHYSIOLOGY, a quantitative approach to problems in plant and crop physiology
 Academic Press, London, etc. XIV, 318 pp., 81 figs., 11 tabs., subject index. £ 9.80,
 \$ 24.25

This book is concerned largely with quantitative approaches to plant growth and development, a fact which is not clearly brought out in the title. The author has himself contributed greatly to this area, as is apparent from the bibliographies.

The author presents his "modelling philosophy" in the introductory chapter. Chapters 10-13, together occupying about a quarter of the book, are of most interest to our readers. They are entitled Development and senescence, a new growth equation; Unrestricted vegetative plant growth, with senescence and transport; A biochemical switch, development, and flower initiation; and Primordial initiation and phyllotaxis. The model developed in the latter chapter uses polar coordinates and a morphogen and is related to Turing's early approach. Ch. 14 deals largely with the external form of plants and deliberately ignores temporal growth patterns as being at present too difficult.

The book has a very useful glossary.

21.

- D. H. M. FRIJTERS. 1976. CONTROL MECHANISMS AND COMPUTER DESCRIPTIONS OF INFLORESCENCE DEVELOPMENT
Ph. D. thesis, Utrecht. 95 pp., 57 figs.

Based on three published papers (1974-'76); introduction, theoretical model and appendices added; models for vegetative and reproductive branching patterns in two Composite species, based predominantly on interactionless L-systems; integration mechanisms; paracladial relationships; many branching diagrams.

22.

- R. LETOUZÉ. 1976. QUELQUES MANIFESTATIONS MORPHOGÉNÉTIQUES ET BIOCHIMIQUES DE L'ACTION DES LUMIÈRES MONOCHROMATIQUES SUR LE DÉVELOPPEMENT DU BOURGEON AXILLAIRE D'UNE BOUTURE DE SAULE.
(*SALIX BABYLONICA* L.) EN CULTURE IN-VITRO
Ph. D. thesis, Angers. 154 pp., 24 figs., 4 tabs. (mimeographed)

Willow shoots produced by meristem culture and clonal propagation; growth of axillary buds after decapitation in monochromatic light of different wave lengths; interference with apical dominance; phytochrome-type mechanism; phenylalanine ammonia-lyase as a biochemical marker.

INVERTEBRATE DEVELOPMENT (general) (see also 98, 104, 105, 106)

Monographs

23.

- O. M. IVANOVA-KAZAS. 1977. COMPARATIVE EMBRYOLOGY OF THE INVERTEBRATES; animals with trophophore larvae, Tentaculata, Chaetognatha, Pogonophora (in Russian)
Izdat, Nauka, Moscow. 312 pp., 181 figs., index of terms; taxonomic index. 2R 89K (paper)

Treatment according to eight different phyla, the first four being trophophorate; numerous good line drawings from various sources; extensive bibliographies.

Dissertations

24.

- J. P. NENON. 1977. ÉCOLOGIE ET BIOLOGIE DU DÉVELOPPEMENT D'UN ENTOMOPHAGE POLYEMBRYONNAIRE; *Ageniaspis fuscicollis* Thomson 1875 (Hyménoptère, Chalcidien, Encyrtidé)
Ph. D. thesis, Reims. 323 pp., 68 figs., 29 tabs. (mimeographed)

Thorough, mainly descriptive study on the life cycle of a polyembryonic Hymenopteran living as a parasite on several harmful Lepidopterans; short chapter on polyembryony in plants and animals; some 150 pp. on reproduction, cleavage, fragmentation of embryos, influence of temperature and host, growth of parasitoids, influence of hormones *in vitro*, postembryonic development; some good photographs and line drawings; long bibliography.

25.

P. CAPPUCCINELLI and J. M. ASHWORTH, eds. 1977. DEVELOPMENT AND DIFFERENTIATION IN THE CELLULAR SLIME MOULDS
Elsevier-North Holland, Amsterdam, etc. *Developments in Cell Biology*, Vol. 1. XX, 317 pp., 145 figs., 12 pls., 35 tabs., subject index.

This symposium volume is a must for all those working on or interested in cellular slime moulds. The meeting was held in Sardinia in April 1977 and publication was thus extremely rapid. There were 70 participants from all over the globe, including many of the younger members of the "slime mould community".

The 24 research reports and reviews of recent work range in length from about five to about 20 pages. Between them they cover almost all conceivable aspects of the development of these fascinating organisms, including membrane physiology, biochemistry, molecular biology and genetics. No discussions are recorded. The Editors' Preface contains a brief account of the basic biology of these organisms. Although there is not much unity in the book, it is extremely useful as a "cross section" of most of the work that is going on right now.

The papers are reproduced from typescripts. They are well illustrated.

26.

J. R. COLLIER, F. J. LONGO, R. L. MILLER and J. B. MORRILL, organizers. 1976.
SPIRALIAN DEVELOPMENT
Amer. Soc. of Zoologists, Thousand Oaks, Calif. *American Zoologist* vol. 16, 3. 352 pp., 308 figs., 24 tabs.

This symposium was held in December 1974 and consequently part of the material may now be outdated. Nevertheless, it is very helpful to have much work prior to 1974 together in the form of a series of well-written and well-illustrated reviews. All contributors but one were from North America, but one contribution is a joint American-Dutch paper.

The material discussed pertains to a large number of different spiralian forms. The discussions range from the morphological to the molecular-biological level. After a review of basic types of spiral cleavage the remaining papers are arranged in five sections as follows: Gametogenesis and fertilization (5 papers); Experimental cytoembryology (6); Biochemistry of development (5); Larval development and metamorphosis (2); Regeneration and adult growth (2).

The volume is profusely illustrated, predominantly with light and electron micrographs.

27.

P. A. LAWRENCE, ed. 1976. **INSECT DEVELOPMENT**
Blackwell, Oxford, etc. *Symposia Royal Entomol. Soc. London* vol. 8. X, 230 pp., 114 figs., 8 tabs., combined subject and taxonomic index. £ 10.50

Contributors: Ashburner, Bohn, Gehring, Illmensee, Kalthoff, Lawrence, Morata, Nöthiger, Richards, Sander, Schneiderman, Shelton, Whittle, Wigglesworth

This symposium was held in London in September 1975. That it was a didactic symposium is evident from the fact that all contributors have tried to write non-technically and have provided essential background material. The result is a collection of very readable reviews which clearly reflect the excitement engendered by the rapid flow of new data in this field. There is considerable overlap among some contributions but there are adequate cross-references.

The first essay (by Schneiderman) is the longest and spans the entire field. Of the other contributions three deal with eggs and embryos, four with imaginal discs, and four with

pattern in later development (eye development, leg regeneration, the role of JH in pattern formation, and chromosome puffing and ecdysone). All papers are followed by brief discussions which are often illuminating. Most reference lists go well into 1976.

The book is very well produced and well illustrated with line drawings and photographs.

28.

H. M. McCAMMON and W. A. REYNOLDS, organizers. 1977. BIOLOGY OF LOPHOPHORATES

Amer. Soc. of Zoologists, Thousand Oaks, Calif. American Zoologist vol. 17, 1. 150 pp., 139 figs., 11 tabs.

This symposium was held in August 1975. The Lophophorates are a loose group including the Bryozoa, Brachiopoda and Phoronida. Of the 13 papers in this volume six deal in one way or another with descriptive aspects of the development of these organisms: embryonic, larval and postlarval development, colony development, and growth and differentiation of adventitious structures. All of these papers report on original research against a varying background of review material of a morphological or evolutionary nature. They are written by specialists from five countries and are very well illustrated with line drawings, photographs and micrographs.

VERTEBRATE DEVELOPMENT (general)

Treatises

29.

B. LOFTS, ed. 1976. PHYSIOLOGY OF THE AMPHIBIA. vol. 3

Academic Press, New York, etc. XIV, 644 pp., 224 figs., 26 tabs., author, species and subject indexes. \$ 58.50, £ 41.55

Contents: 1. Color change (Bagnara); 2. Physiology of molting (Larsen); 3. Ground substance: an anuran defense against desiccation (Elkan); 4. The physiology of Amphibian cells in culture (Rafferty); 5. Immunity mechanisms (Cooper); 6. Pathology in the amphibia (Elkan); 7. The nervous system (Oksche and Ueck); 8. The visual system (Ingle); 9. The auditory system (Capranica); 10. The biology of metamorphosis (Dodd and Dodd)

It is particularly the last chapter of this volume that is of special interest to developmental biologists. It is a well-organised and authoritative review, which moreover presents a new theory of thyroxine action in metamorphosis. Several other chapters (notably chs. 4, 5, 6 and 7) contain information of developmental relevance.

Most of the chapter bibliographies are up to date until 1974. The book is well produced and illustrated.

30.

F. S. RUSSELL. 1976. THE EGGS AND PLANKTONIC STAGES OF BRITISH MARINE FISHES

Academic Press, London, etc. XVI, 524 pp., 137 figs., 7 tabs., systematic and subject indexes. \$ 19.50

Although this book by a great authority is largely a guide for the identification of early fish stages in ecological studies, it could be useful to fish embryologists as a reference work and for its additional information. It is a definitive work.

After a series of brief chapters dealing in a general way with such matters as the egg and its development, the larva, the postlarva, and feeding habits, 40 families are taken up

in succession. Each of these chapters has a general introduction and then proceeds to characterise one or more, sometimes many species. Apart from the illustrations, documented information is provided for each species on some or all of the following topics: egg, larva, postlarva, food and feeding, rearing, growth rate, behaviour, and distribution. Strictly oceanic species and descriptions of young and fry are excluded.

The book has a host of careful line drawings and a bibliography of close to 600 titles.

Textbooks

31.

P. CHIBON. 1977. EMBRYOLOGIE CAUSALE DES VERTÉBRÉS
Presses Univ. de France. Série Le Biologiste. 224 pp., 54 figs., subject index

This little book was probably written for advanced undergraduate students. It presents a highly selective outline of classical vertebrate experimental embryology, with rather much emphasis on the work of French embryologists. This is supplemented by chapters on the analysis of cell proliferation (the author's own speciality) and on cell death in morphogenesis.

The book is well organised and clearly written. There are some odd omissions, however, such as mesoderm induction prior to gastrulation and the role of the apical ectodermal ridge in limb development. The definition of "morphogenetic field" is rather narrow, while other basic concepts such as epigenesis and morphogenesis are not defined at all.

The line drawings and diagrams are helpful, but the few photographic illustrations are not very well reproduced. The bibliography is restricted to some 20 titles. The index is grossly inadequate.

32.

L. HAMILTON. 1976. FROM EGG TO ADOLESCENT, *Xenopus* - a model for development
English Univ. Press, London. XII, 78 pp., 34 figs., subject index. £ 3.45

It is difficult to form a judgement of this book because one would have to see it through the eyes of those for whom it is intended: English sixth formers and beginning students. It will certainly convey to them something of the excitement of scientific discovery; on the other hand it is perhaps too unbalanced and at the same time sometimes too difficult in its treatment to convey a really integrated mental picture. Embryology is a difficult subject, and it depends so much on correct (particularly spatial) mental images that the book may fall short particularly due to its pictorial limitations.

Apart from this, the style is not always clear and there are some odd inaccuracies. I suspect many embryologists would agree that *Xenopus* is probably not unique among anurans in having internal prospective mesoderm. Some subjects get an inordinate share of attention (for instance cleavage), while others are not treated in sufficient depth to give proper understanding. Many more difficult words could have been explained in the glossary.

The 40-odd literature references are well selected and the appendix describing some simple operations is very good. The line drawings are good and the electron micrographs are well reproduced.

33.

W. W. MATHEWS. 1976. ATLAS OF DESCRIPTIVE EMBRYOLOGY. 2nd edit.
Macmillan, New York; Collier Macmillan, London. X, 195 pp., 180 figs. £ 6.00 (paper)

The first edition of this atlas was reviewed in Gen. Embryol. Inform. Serv. 15, 1, 1973. No major changes have been made but 16 drawings and 27 excellent photomicrographs have been added. Gametogenesis has been extended to non-mammalian forms.

R. RUGH. 1977. A GUIDE TO VERTEBRATE DEVELOPMENT, 7th edit.
Burgess, Minneapolis, XVIII, 390 pp., numerous figs. \$ 9.95 (spiral bound)

This new edition of a well-known students' guide has been somewhat extended. A brief chapter on human development has been added, as well as a 17-page chapter entitled Experimental embryology. This is entirely methodological in character; it suggests no specific experiments and does not discuss the results of such experiments.

Dissertations

35.

G. HENTSCHEL. 1974. ISOLATIONS- UND KOMBINATIONSEXPERIMENTE ZUR ANALYSE DER DIFFERENZIERUNGSLEISTUNGEN FRÜHEMBRYONALER ENTWICKLUNGSSTADIEN VON AMBYSTOMA MEXICANUM
Ph. D. thesis, Köln. 100 pp., 16 figs., 19 tabs.

Explants from the animal portion of axolotl embryos (8-cell stage till late gastrula) treated with LiCl; quantitative determination of amount of Li inside living cells; correlation with differentiation; combinations of treated with untreated explants.

36.

U. LANDSTRÖM. 1977. ON THE DETERMINATION OF EARLY CELL DIFFERENTIATION IN AMPHIBIAN EMBRYOS Ph. D. thesis, Umeå. 117 pp., 48 figs., 18 tabs.

Collection of 7 published papers and preprints (1974-'77) preceded by a 17-page introduction and summary; two main themes: (a) dorso-ventral polarity and metabolism in the blastula, (b) interactions between animal and vegetative cells in the blastula and their possible chemical basis.

DEVELOPMENT OF MAMMALS AND MAN (general) (see also 48, 61, 97, 101, 102)

Treatises

37.

M. H. JOHNSON, ed. 1977. DEVELOPMENT IN MAMMALS. Vols. 1 and 2
North-Holland, Amsterdam, etc.
Vol. 1: VIII, 390 pp., 118 figs., 36 tabs, subject index. \$ 34.50, Dfl. 84.00
Vol. 2: VIII, 241 pp., 54 figs., 13 tabs, subject index. \$ 29.50, Dfl. 72.00

Contributors to vol. 1: Aitken, Beato, Bell, Borland, Ducibella, Johnson, Kaufman, O'Grady, Schultz, Surani, Tucker, Warner

Contributors to vol. 2: Atienza, Beato, Braude, Bullock, Canipari, Handyside, Izquierdo, Jenkinson, Johnson, Katz, Mangia, Overstreet, Rossant, Salomon, Sherman, Wudl

This new serial publication will certainly be of great value to mammalian embryologists. If the promise of the first two volumes is fulfilled it will develop into a real forum for the exchange of facts and ideas. Moreover, publication is extremely rapid as books go. Contributions will be both by invitation and submission, and no rigid format is prescribed. This is exactly the sort of thing that a rapidly developing area of science needs. For vol.3 the editor particularly seeks contributions on sex determination and differentiation.

The 17 reviews in the first two volumes, with an average length of 35 pages, concentrate on peri-implantation stages and blastocyst-uterine relationships. Some are more like essays, and many contain interesting new ideas, to which readers are requested to react in subsequent volumes. Many contributions are by younger scientists. The majority of the authors

are from North America and the United Kingdom but there are contributions from Western Europe and South America as well.

The books are produced in small but readable typescript-offset. The photographic illustrations are well reproduced.

Textbooks

38.

E. BLECHSCHMIDT. 1976. WIE BEGINNT DAS MENSCHLICHE LEBEN
Christiana-Verlag, Stein am Rhein. 168 pp., 63 figs.

This is an entirely rewritten version of the author's earlier book *Vom Ei zum Embryo* (1968). It is based on unorthodox ideas which are by now well known, particularly in the German-speaking world: kinetic anatomy, developmental dynamics, formative movements (*Gestaltungsbewegungen*), and "metabolic fields" (*Stoffwechselfelder*). The latter two concepts are derived from a painstaking morphological analysis of human development, the results of which have already been laid down in a number of more extensive works for the specialist. The present book is an outline that is apparently meant primarily for the general reader.

The book is illustrated with excellent line drawings and photographs, for the most part taken from the author's earlier works. It is concluded by tabular surveys of human development and a glossary.

39.

G. MICHEL. 1977. KOMPENDIUM DER EMBRYOLOGIE DER HAUSTIERE. 2nd edit.
Fischer, Jena. 398 pp., 232 figs., 15 tabs., subject index. M 28.00

The first edition of this book (1972) was reviewed in Gen. Embryol. Inform. Serv. 15, 1 (1973). The book is essentially unchanged. The text is some 25 pages longer, three of which are taken up by a new chapter on teratology. A few new illustrations were added and the list of additional reading was somewhat extended.

40.

G. H. SPERBER. 1976. CRANIOFACIAL EMBRYOLOGY. 2nd edit.
Wright, Bristol. Dental Practitioner Handbook No.15. XIV, 163 pp., 106 figs., subject index. £ 5.00 (paper)

The first edition of this book appeared in 1973 and was reviewed in Gen. Embryol. Inf. Serv. 15, 2, 1974. The book has remained essentially the same but expansion in several places has led to an increase in length of 30 pages. A short chapter on the development of the sense organs of the head was added. Several new figures were inserted and several others replaced. The chapter bibliographies were extended.

Monographs

41.

R. W. BEARD and P. W. NATHANIELSZ, eds. 1976. FETAL PHYSIOLOGY AND MEDICINE: the basis of perinatology
Saunders, London, etc. XII, 542 pp., 123 figs., 62 tabs., subject index. £ 15.00, \$ 28.50

This book deals almost entirely with the fetus and is therefore predominantly of interest to members of the medical profession. However, it can be of value as a work of reference to mammalian and human embryologists. Of the 37 contributors 29 are British or Commonwealth. The 26 chapters are compendious reviews with long reference lists and together provide almost complete coverage of our knowledge of human and mammalian

fetal life as the product of physiological and clinical research. Most of them are up to date until 1974 or '75.

The book is well produced. It is illustrated almost entirely with graphs and diagrams. The large majority of the literature cited is in English.

42.

I. R. PHILLIPS. 1976. THE EMBRYOLOGY OF THE COMMON MARMOSET (*Callithrix jacchus*)

Springer, Berlin, etc. *Advan. Anat. Embryol. Cell Biol.* Vol. 52, 5. 47 pp., 22 figs., 14 tabs., subject index. DM 26.00 (paper), \$ 10.70

Brief description of a somewhat incomplete series of Streeter stages beginning with VII and ending with XXI; discussion of timing of morphogenesis in comparison with other primates; good drawings and micrographs.

Symposium reports

43.

F. T. PERKINS and P. N. O'DONOUGHUE, eds. 1975. BREEDING SIMIANS FOR DEVELOPMENTAL BIOLOGY

Laboratory Animals Ltd, London. *Laboratory Animal Handbooks*, vol. 6. II, 353 pp., 93 figs., 57 tabs., combined subject and taxonomic index. £ 12.00, \$ 30.00

This symposium was held in London in June 1974 and was attended by more than 100 specialists from many different countries. The significance of the published proceedings will be obvious to all those working or planning to work with primates. There are 30-odd papers interspersed with discussions.

Rather than enumerating all the contributions we want to single out some topics that are of specific importance to embryologists working with primate material: comparison of embryonic and foetal development of man and rhesus monkey (29 pp. including discussion); chronology of development of embryo and placenta in *Tupaia* (3 pp.); determination of early pregnancy and stage of foetal development in *Macaca* (16 pp.); macaque and marmoset as animal models for birth defects (11 pp.); comparison of developmental stages in primates (12 pp.); and possibilities of using *Macaca arctoides* in teratology (8 pp.). Most of the remaining contributions deal with the husbandry, breeding, reproduction and diseases of monkeys.

The book is well produced and illustrated.

44.

D. F. ROBERTS and A. M. THOMSON, eds. 1976. THE BIOLOGY OF HUMAN FETAL GROWTH

Taylor & Francis, London. *Symposia Soc. for the Study of Human Biology*, vol. 15. X, 309 pp., 70 figs., 47 tabs., author and subject indexes. £ 6.50

This symposium was held in England in November 1974 and all contributors but one are English. The book is clearly of most immediate importance to obstetricians but some contributions may be of interest to mammalian embryologists. Most papers are reviews of greatly varying length; two are research reports.

The 15 contributions are grouped as follows (we briefly indicate the subjects of more general importance in parentheses); Techniques (2 papers); Growth in size and its postnatal implications (6, of which one on metrical growth and skeletal development and one on vulnerable periods in brain and somatic growth); Growth in function (4, among which endocrine function, biochemical development, immune competence); Factors affecting growth (3, of which one on non-specific esterases).

The book is well produced and adequately illustrated.

Textbooks

45.

C. R. AUSTIN and R. V. SHORT, eds. 1976. FORTPFLANZUNGSBIOLOGIE DER SÄUGETIERE. Band 1 Keimzellen und Befruchtung, aus dem Englischen übersetzt von G. Obe, U. Hollihn und B. Beek

Parey, Berlin, etc. Pareys Studientexte No. 6. 116 pp., 50 figs., 3 tabs., subject index. DM 25.00 (paper)

This is the translation of the first of an excellent series of five short texts first published in 1972. The reader is referred to our earlier reviews in *Gen. Embryol. Inf. Serv.* 15, 1 (1973).

The translation is competent and conscientious. The original beautiful illustrations are somewhat too darkly reproduced, thus occasionally losing some of their information content. One illustration has been replaced. The index has been greatly extended.

46.

J. COHEN. 1977. REPRODUCTION

Butterworths, London, etc. XX, 356 pp., 86 figs., 17 pls., 11 tabs., combined subject and taxonomic index.

In so far as developmental biology deals with phenomena occurring during the life cycle, it is natural to place it in the broad context of reproduction. In this book the author, who is both an embryologist and a reproductive biologist, does this on the whole in an admirable manner. The book paints a very wide panorama indeed, and would be very suitable to make students of development aware of the place of their science in the whole of biology (in the non-reductionist sense).

That the book arose out of lectures is apparent from its easy style. It is full of unorthodox ideas, often amusing, and occasionally provocative (especially in the sections dealing with social and cultural patterns.) The amount of embryology in the modern sense is naturally restricted and the chapters in question are slightly marred by some mistakes and inaccuracies. Particularly useful and informative are the chapters on larval forms, viviparity, life cycles and evolution.

The illustrations, both line drawings and photographs, are all original and on the whole very good. There is a good glossary. The 15-page reference list serves as an author index. The index is extensive (but does not include "induction").

Monographs

47.

A. E. BEER and R. E. BILLINGHAM. 1976. THE IMMUNOBIOLOGY OF MAMMALIAN REPRODUCTION

Prentice-Hall, Englewood Cliffs. XVI, 240 pp., 31 figs., 3 tabs., subject index, \$ 24.10, £ 15.15

Although this book is obviously of primary importance to medical students and members of the medical profession, it could be very useful to mammalian embryologists. It is a concise synthesis of the basic observations and principles in this field and is well suited for rapid orientation. Due to the limited documentation it is not suitable as a reference work.

The book is easy to read and the treatment is critical, as we may expect from such eminent authorities. In a series of 15 chapters of convenient length virtually all aspects pass in review. Eight chapters deal in one way or another with the period of gestation,

and one (briefly) with the ontogeny of immune responses. Each chapter has a selective reference list of one to a few dozen titles.

The book is adequately produced. All illustrations are original and serve their purpose well.

48.

R. B. L. GWATKIN. 1977. FERTILIZATION MECHANISMS IN MAN AND MAMMALS
Plenum, New York, etc. X, 161 pp., 34 figs., 6 tabs., subject index. \$ 21.80, £ 11.03

Knowledge of mammalian fertilisation has greatly increased in the last five years. In this book the eminently qualified author reviews the new knowledge in a concise but well-documented form, paying attention to morphological, physiological and molecular aspects. Recent data on amphibian and invertebrate (mainly sea urchin) gametes have been included wherever appropriate.

The book consists of 15 brief chapters. Fertilisation is defined broadly: there are chapters on the egg and the sperm, on gamete transport, on sperm capacitation, and on part-henogenesis. Other subjects are the prevention of polyspermy and pronucleus formation. An epilogue lists some two dozen questions which should be attacked in the near future.

The book is well produced and illustrated with good line drawings, photographs and electron micrographs. The 34-page bibliography is up to date until well into 1976.

49.

E. C. ROOSEN-RUNGE. 1977. THE PROCESS OF SPERMATOGENESIS IN ANIMALS
Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biology Series, vol. 5. VIII,
214 pp., 38 figs., 14 pls., 12 tabs., author, taxonomic and subject indexes. £ 15.50

This scholarly monograph is comparative in character and emphasises spermatogenesis as the development of a peculiar population of cells set apart in the metazoan body, an organismic process in some ways similar to early embryogenesis. It follows that much attention is devoted to the relationships between germ cells and somatic cells. Differentiation and endocrine and genetic control are treated as supplementary subjects. Much older work that is in need of re-investigation is cited.

After an interesting historical survey the treatment is at first strictly systematic, starting with the *Porifera* and ending with the vertebrates (with comparatively little space devoted to mammals). Next there are brief chapters dealing in a general manner with the kinetics of spermatogenesis; degeneration, polymorphism and genetic control; and compartments and auxiliary cells. Much useful information is presented in tabular form.

The book has a glossary that is meant as a contribution to the conscious use of terms. The bibliography covers 31 pages of small print. In the text there are numerous good line drawings reproduced from various (often older) sources. These are supplemented by 14 plates of good quality, several of which are again beautiful old drawings.

50.

J. S. SCOTT and W. R. JONES, eds. 1976. IMMUNOLOGY OF HUMAN REPRODUCTION

Academic Press, London; Grune & Stratton, New York. XXII, 476 pp., 58 figs., 26 tabs.,
subject index. £ 15.00, \$ 32.75

This book was written primarily as a guide for clinicians to an expanding field of knowledge. It contains 14 well-organised reviews written by experts in the field. They are not exhaustive but are meant as surveys of current knowledge.

The chapters of most immediate interest to mammalian embryologists are those by Johnson (Fertilisation and implantation, 28 pp.), Mendenhall (The immunology of the fetal-maternal relationship, 20 pp.), Billington (The immunology of trophoblast, 22 pp.), Jones (Fetal and neonatal immunology, 42 pp.), and Scott (Immunological aspects of trophoblastic neoplasia, 20 pp.). Several other chapters may be of interest to teratologists.

The volume is well produced and adequately illustrated.

51.

M. EDIDIN and M. H. JOHNSON, eds. 1977. IMMUNOBIOLOGY OF GAMETES
Cambridge Univ. Press, Cambridge, etc. Clinical and Experimental Immunoreproduction
vol. 4. X, 310 pp., 91 figs., 40 tabs., subject index. £ 14.50

This meeting of 26 specialists was held in Boston in May 1976. Of the 11 papers presented 10 were by American authors. Most of the contributions are concentrated reviews of recent research and all are followed by extensive and interesting group discussions, complete with references.

The first seven papers all deal in one way or another with the membranes, surface antigens and enzymes of mammalian spermatozoa. The last four are of wider interest to embryologists. Two of these are somewhat outside the scope of the volume (one by Van Blerkom on electrophoresis of rabbit oocyte and embryonic proteins, and one by Epel on fertilisation in sea urchins). The other two are by Solter (organisation and antigenic properties of mammalian egg membrane) and by Yanagimachi (sperm-egg interaction in mammals).

The volume is very well produced and illustrated.

IMPLANTATION, PLACENTA, FETAL MEMBRANES AND FLUIDS (see also 3,37, 47,
50,86,101)

Dissertations

52.

R. BAUR. 1977. MORPHOMETRY OF THE PLACENTAL EXCHANGE AREA
Springer, Berlin, etc. Advan. Anat. Embryol. Cell Biol. Vol. 53, 1. 65 pp., 37 figs., 9 tabs.,
subject index. DM 32.00, \$ 14.10 (paper)

Thorough study based on macroscopic and light-microscopic measurements of volume, chorionic surface area, and villous surface area; developmental data for six species with different types of placenta, starting at ca. 2 wks for the smaller and 5-15 wks for the larger species; full-term placentas of 30 species with compact or diffuse placental types; extensive mathematical analysis; much German literature.

Symposium reports

53.

K. YOSHINAGA, R. K. MEYER and R. O. GREEP, eds. 1976. IMPLANTATION OF THE OVUM
Harvard Univ. Press, Cambridge, Mass. XII, 161 pp., 56 figs., 21 tabs., subject index. £ 11.25

Contents: 1. Introduction (Meyer); 2. Ovarian hormone secretion and ovum implantation (Yoshinaga); 3. The use of agents other than natural hormones (Emmens); 4. Methods for studying the blastocyst (Biggers); 5. A morphological approach to the study of ovum implantation in the rat (Tachi, Tachi, and Lindner); 6. Biochemical approach to ovum implantation (Beier); 7. Interspecific egg-host relationships in the rat and mouse (Zeilmaker); 8. Recent research on ovum implantation (June 1972-June 1975) (Yoshinaga)

This symposium was held in Washington, D. C. in June 1972 and the papers for the book were prepared soon after that. The time-lag until publication is bridged by the last paper, which is up to date until the middle of 1975 and has over 180 references.

The table of contents speaks for itself. All papers are authoritative reviews with varying emphasis on the authors' own research. Nearly all are of great interest to mammalian

embryologists. Several contain very useful surveys of relevant data in tabular form.

The book is attractively produced and illustrated mainly with photo- and electron micrographs.

TERATOGENESIS, CONGENITAL MALFORMATIONS (see also 43,73,79,81,82)

Treatises

54.

H. NISHIMURA and N. OKAMOTO, eds. 1976. SEQUENTIAL ATLAS OF HUMAN CONGENITAL MALFORMATIONS, observations of embryos, fetuses and newborns Igaku Shoin, Tokyo. VIII, 334 pp., 531 figs., subject index. \$ 65.00, Y 16,000, Dfl. 160.00

This book, written by four Japanese authors, is mainly meant for clinicians as a guide to the supporting embryological evidence for congenital malformations. Some of the material, as well as the bibliography, may be of use to human embryologists. The book is based mainly on an autopsy population of some 6000 embryos (induced abortions) collected in Kyoto and some 6000 fetuses (mainly induced and spontaneous abortions) collected in Hiroshima.

The bulk of the book consists of some 785 photographs and photomicrographs of mostly good quality, provided with descriptive captions. Most of these are of full-term fetuses or neonates, but there are a fair number of earlier stages among them. They are supplemented by brief texts considering, among other things, the pathogenesis and etiology (if known) of the malformations. The texts often have explanatory line drawings. In some of these the lettering, pointers and captions are somewhat inadequate. The malformations are arranged mainly according to organ systems.

The bibliography covers 29 pages of small print and consists of literature cited in the text plus selected titles from the world literature. There are five pages of selected literature on normal human development, arranged by organ system. The book is well produced on glossy paper.

Monographs

55.

C. L. BERRY, ed. 1976. HUMAN MALFORMATIONS

British Council Med. Dept., London. British Med. Bull. vol. 32, 1. 98 pp., 11 figs., 2 pls., 29 tabs. £ 3.50

Although this issue is obviously meant primarily for members of the medical profession, part of it would be useful collateral reading for those entering the field of teratogenesis. It contains 15 brief reviews, with fairly long to long reference lists, on variety of subjects. About half of these could be of interest to those working in experimental teratology outside the clinic.

We specifically mention the papers by Berry and Barlow on reproductive toxicity testing, by Beck on model systems in teratology, by Poswillo on mechanisms and pathogenesis of malformation, and by Wolpert on mechanisms of limb development and malformation.

56.

- N. CHRISTENSEN. 1976. OCULAR MALFORMATIONS INDUCED BY RADIATION OF THE MOUSE EMBRYO, a histopathological study with a particular view to stage specificity
FADL, Copenhagen; M. D. thesis, Copenhagen. Acta Pathol. et Microbiol. Scand. Sect. A, suppl. 254. 170 pp., 25 figs., 36 tabs.

Systematic study of gross and microscopic eye malformations after irradiation with mainly 222 R on gestation days 7 through 14; limited dose-response study; data on resorption and embryonic growth retardation; spontaneous eye malformations; good photomicrographs.

57.

- L. DENCKER. 1976. TISSUE LOCALIZATION OF SOME TERATOGENS AT EARLY AND LATE GESTATION RELATED TO FETAL EFFECTS
D. V. M. thesis, Uppsala. Acta Pharmacol. et Toxicol., vol. 39, suppl. 1. 131 pp., 41 figs., 10 tabs.

Distribution and localisation of teratogens in pregnant rodents, studied by whole-body autoradiography in sections of whole uteri; teratogens used: heavy metals, trypan blue, 2,4,5-T, salicylic acid; stages from presomite till term; quantitation by impulse counting in some cases; many autoradiographs with corresponding light micrographs.

58.

- E. B. van JULSINGHA. 1976. TWO NEW PROCEDURES FOR USE IN TERATOLOGY STUDIES DESIGNED TO EVALUATE THE SAFETY OF AGENTS
Ph. D. thesis, Utrecht. 311 pp., numerous figs. and tabs. (mineographed)

I. New procedure for processing results of teratological studies by computer (with flow diagrams); II. Procedure to predict embryo-lethality in rabbits caused by some types of steroids, by determining serum transaminase activities; photographic atlas of freehand sections of head of 29-day rabbit foetus.

Symposium reports

59.

- J. D. EBERT and M. MAROIS, eds. 1976. TESTS OF TERATOGENICITY IN VITRO
North-Holland, Amsterdam, etc. 497 pp., 225 figs., 7 pls., 30 tabs. \$ 61.25, Dfl. 150.00

This international conference was held in Woods Hole, Mass. in April 1975 in honour of Prof. Etienne Wolff and was sponsored by the Institut de la Vie. The title is a little misleading: only about a third of the 27 papers have a direct bearing on the area indicated by the title, and some even seem entirely out of place. On the other hand, many authors make an effort to point out the possible teratogenic implications of their findings on basic aspects of normal development as studied in vertebrate cells, tissues and organs *in vitro*. A great variety of such systems pass in review, usually by established authorities from many countries. Many contributions are extremely interesting but there is little unity in the volume as a whole.

The contributions vary greatly in length and format. Most are brief to medium-length reviews of recent work, often unpublished at the time of writing. There has been minimal editing and the conference discussions are not recorded.

The book is well produced and profusely illustrated; the numerous photographic illustrations are well reproduced. The book has no indexes.

60.

L. WEINSTEIN, ed. 1976. TERATOLOGY AND CONGENITAL MALFORMATIONS, a comprehensive guide to the literature, 3 vols.

Plenum, New York, etc. vol. 1 Bibliography: 464 pp.; vol. 2 KWIC Index part one: 570 pp.; vol. 3 KWIC Index part two and author index: 538 pp. \$ 234.80 the set

This most useful set of volumes is best characterised by reprinting the entire second paragraph from the Preface:

The material of this book ranges from experimental to clinical, with the emphasis on the former. A majority of the references concern malformations, especially those induced by chemicals, drugs, pesticides, diseases, stress, environment, etc. Techniques and methods for the study of teratogenesis is another well-represented category. Each reference in this group has had the words "test method" added to the title to assist in locating such papers in the KWIC index. Also included are those aspects of embryology, reproduction, and genetics that lead to a better understanding of the development of the malformations. In recent years, references to mutagenicity and screening tests for carcinogenicity have been added. An effort has been made to include books, book reviews, symposia, conference proceedings, and abstracts from meetings.

The work is a compilation of all references contained in a current awareness bulletin produced by Lederle Laboratories since 1963, plus the references from several retrospective searches going back to around 1950. The total number of references listed is more than 13,000, the last 2,000 of which date from 1974. The listings are in the form of a Bibliography (vol. 1) and a computer-produced Key Word In Context index (vols. 2 and 3) referring back to the Bibliography. The KWIC index is based on the titles plus appropriate keywords supplementing them. Titles in 24 languages other than English have been translated into English. The author index at the end of vol. 3 of course also refers back to the Bibliography.

The volumes are sturdily bound. It is to be hoped that the volumes will be updated from time to time.

DEVELOPMENTAL PATHOLOGY, CANCER (see also 67,89,93,101)

Monographs

61.

A. GROPP and K. BENIRSCHKE, eds. 1976. DEVELOPMENTAL BIOLOGY AND PATHOLOGY

Springer, Berlin, etc. Current Topics in Pathology, vol. 62. IX, 216 pp., 86 figs., 18 tabs., subject index. DM 96.00, \$ 39.40

The preparation of this volume was prompted by the desire to meet some urgent fundamental needs of developmental pathology. Indeed, some rather recent avenues are explored in it, and it ought to be of great interest not only to pathologists but to all mammalian embryologists. Most of the 19 contributors are established authorities in the field; all but two are from Western Europe. The 12 contributions are well-organised reviews ranging in length from half a dozen to two dozen pages. (Not all of them are equally up to date and only one has been updated.)

After a brief introduction by Austin the contributions are arranged in four sections as follows: Oocyte, early embryo and maternal host; morphology and biochemistry (4 papers), Pharmacological and hormonal influences in early embryogenesis (3), Teratology (2), and Cytogenetics (3). We cannot list all individual contributions but want to make an exception for the paper by Denker, in which he reviews the problem of early determination on a comparative basis and concludes that it is too early to decide between the "inside-out" and the cytoplasmic localisation hypotheses, and that both may be true.

The volume is well printed and superbly illustrated.

62.

J. H. COGGIN, Jr. and N. G. ANDERSON, eds. 1976. SYMPOSIUM CANCER AND CHEMISTRY, part of the Fourth Conference on embryonic and fetal antigens in cancer Williams & Wilkins, Baltimore. Cancer Research, vol 36, 9, pt. 2. 164 pp., 69 charts, 41 figs., 66 tabs. \$ 8.00

This symposium was held in Charleston, S. C. in November 1976. It was concerned with the relationships between cancer and normal development, particularly their biochemical and genetic aspects.

The reviews and research reports of most general scope, and therefore of greatest interest to mammalian and other embryologists, are those in the first two sessions (4 papers each): Molecular basis for programming in development, and Embryonic and fetal development. The remaining sessions deal with Relationships between shared tumor and fetal products, Antigenic determinants of colonic cancers, and Tumor antigens and embryonic antigens on neoplasms. The volume is well illustrated.

63.

W. H. FISHMAN and S. SELL, eds. 1976. REGULATION OF GENE EXPRESSION IN DEVELOPMENT AND NEOPLASIA

Amer. Assoc. for Cancer Res., Bethesda. Cancer Research, vol. 36, 11, pt. 2., 131 pp., 106 figs., 25 tabs.

The borderland between cancer and normal development is becoming a more and more important area. The present symposium, held at Santa Ynez, Calif. in July 1976, was devoted to this area. The participants were predominantly American (with two from Paris and two from Japan). Of the 19 contributions four are reviews while two are theoretical in nature.

The papers of most direct interest to our readers are in part one: Model systems for the study of oncodevelopmental gene expression; this is in two sections, one dealing with murine teratocarcinoma (5 papers) and one with neoplastic transformation (6 papers). The so-called oncodevelopmental gene products appear again and again in the discussions. The eight papers in part two deal with Molecular mechanisms of gene regulation. Among them is a new model for the control of transcription during development involving small RNA chains. The issue is profusely illustrated.

REGENERATION, RENEWAL

Textbooks

64.

P. MATTSON. 1976. REGENERATION

Bobbs-Merrill, Indianapolis. XIV, 178 pp., 52 figs., subject index. \$ 4.95 (paper)

This little book was written for the educated layman. It is therefore highly selective, avoids some of the more abstruse problems such as modulation/dedifferentiation and pattern formation, and places much emphasis on the possible applications of regeneration results in medicine. Nevertheless, the treatment is scientifically rigorous. The author writes interestingly and avoids jargon.

The book is restricted almost entirely to present-day regeneration research in the U. S. A., apart from a useful chapter on Russian work. Another feature is a special chapter on regeneration in plants.

The book is well illustrated. It has a list of *Scientific American* articles and extensively annotated book titles.

65.

L. V. POLEZHAEV. 1977. REGENERATION (in Russian)
Znanie, Moscow. Novoe v Zhizni, Nauke Tekhnike, Ser. Biol. no. 6. 64 pp., 7 figs. 11k
(paper)

Brief survey of regenerative phenomena in animals, probably written for the educated layman; only a few line drawings; non-Russian authors cited in text but bibliography of a dozen Russian titles only.

66.

V. PREDA and O. CRĂCIUN. 1976. THE REGENERATION OF TISSUES AND ORGANS IN VERTEBRATES (in Rumanian)
Acad. Rep. Soc. Romania, Bucuresti. 317 pp., 124 figs.

Very complete factual and theoretical survey of all aspects of organ and tissue regeneration up till about 1970; 7-page French summary, French table of contents; bibliography of 1,450 titles, very rarely beyond 1971; illustrated mainly with photomicrographs; no index.

Symposium reports

67.

A. B. CAIRNIE, P. K. LALA, and D. G. OSMOND, eds. 1976. STEM CELLS OF RENEWING CELL POPULATIONS
Academic Press, New York, etc. XVI, 389 pp., 102 figs., 25 tabs., subject index. \$ 18.00,
£ 9.90

This symposium was held in Montreal in October 1975. One of its major aims was to bring together investigators from many disciplines to exchange information on stem cells under normal steady state conditions as well as during development, ageing, regeneration and neoplasia. Of the 38 participants, 27 were from North America, 10 from Great Britain, and one from France. Most of the 26 contributions are surveys of recent original work mixed with varying amounts of review material.

The contributions are arranged in six sessions as follows (abridged): Intestine (6 papers), Epidermis (3), Hemopoietic and lymphoid tissue (4+5), Testis (4), and Growth, ageing and neoplasia (4, of which one on teratocarcinoma). Each session is concluded by an informative digest of the discussions held. L. F. Lamerton has provided thoughtful opening and concluding addresses. The volume is dedicated to C. P. Leblond.

The book is produced in good offset print and very well illustrated.

Collections of papers

68.

N. M. GORELIK, ed. 1976. PROLIFERATIVE PROCESSES AND REGENERATION (in Russian)
Publ. House Moscow Univ., Moscow. Transactions of the Moscow Soc. of Naturalists vol. 41. 184 pp., 44 figs., 31 tabs. 2R. 18K

A collection of review and research papers by Russian authors; biography of L. Y. Blacher; some other subjects; present status of the problem of regeneration (Liosner); compensatory growth of salivary glands (Babaeva *et al.*); liver regeneration in guinea pigs (Rjabinina *et al.*) lung regeneration in anuran tadpoles (Romanova *et al.*); fundus regeneration in rat (Timashkevich *et al.*); similarity of budding and regeneration in *Hydra* (Zamaraev); English summaries.

L. V. POLEZHAEV. 1977. REGENERATION BY INDUCTION (in Russian)
Meditina, Moscow. 184 pp., 82 figs. English summary. 1R 58K (paper)

Summary of experiments by the author and other (mainly Russian) investigators on cranial vault, dental tissue and cardiac muscle in mammals; new data obtained with autoradiography and diffusion chambers; inducing factors and their nature; origin of regeneration cells; light micrographs and some electron micrographs of mostly reasonable quality; 16-page bibliography (11 pp. Russian - much older literature, most recent titles 1975/'76).

ORGANOGENESIS, HISTOGENESIS (incl. tissue and organ culture, histochemistry) (see also 27,59,67,86,88,90,96)

Treatises

70.

G. GOTTLIEB, ed. 1976. NEURAL AND BEHAVIORAL SPECIFICITY
Academic Press, New York, etc. Studies on the Development of Behavior and the Nervous System, vol. 3. XX, 352 pp., 48 figs., 21 tabs., author and subject indexes. \$ 28.50

Contributors: Chow, Daniels, Gottlieb, Grobstein, Keating, Lippe, Meyer, Pettigrew, Sperry, Tees

The two previous volumes of this series were reviewed in Gen. Embryol. Inf. Serv. 15. 2, 1975. The present book is divided into four sections and an epilogue by the editor. Section 1 is entitled Historical and theoretical aspects and has two chapters. In a brief introduction the editor points out that the nativism - empiricism controversy, reformulated as a developmental problem, plays a role in all the chapters of the book.

Section 2, entitled Neurospecificity: Chemoaffinity theory, has chapters by Keating and by Meyer and Sperry, in which the problems of visual neuronal connectivity in lower vertebrates and mammals are reviewed from slightly differing perspectives. This section is of greatest interest to embryologists. Sections 3 and 4 are called Neurospecificity: Experience, and Behavioral specificity and have two chapters each. They deal with visual and auditory perception in developing birds and mammals.

Textbooks

71.

H. E. SCHROEDER. 1976. ORALE STRUKTURBIOLOGIE, Entwicklungsgeschichte, Struktur und Funktion normaler Hart- und Weichgewebe der Mundhöhle
Thieme, Stuttgart. XII, 368 pp., 117 figs., 22 tabs., subject index. DM 24.80 (paper)

This text for dental students is written from a modern point of view, in which development, cell differentiation, cell biology and structure form an integrated whole. It could therefore be of interest to those biologists who are starting work on tooth development and related subjects.

Special features of the book are its numerous excellent line drawings (many with colour) and the chapter bibliographies consisting of carefully selected older and recent references from the world literature.

N. K. WESSELLS. 1977. TISSUE INTERACTIONS AND DEVELOPMENT
Benjamin, Menlo Park, Calif., etc. X, 276 pp., 135 figs., subject index. \$ 10.00 (paper)

Although this book was written for undergraduate students it is so full of ideas that it makes delightful reading for any "mature" developmental biologist. Its illustrations, particularly the many scanning electron micrographs, are a joy to behold.

The advantage of a book such as this is that it can delve much more deeply into the subject than is possible in a comprehensive text. If this is moreover done in such an authoritative and thoroughly modern, yet critical and balanced manner, the result is most enjoyable. The treatment is of course selective but the examples are well chosen and the whole text is well integrated. Whether we move at the level of the organ, the tissue, the cell or the cell surface the sense of unity is never lost. The term "tissue interactions" is taken very broadly and encompasses the role of hormones, nerves, extracellular materials and cell coupling.

Other good features are the summary "concepts" (or rather "conclusions") at the end of each chapter and the annotated lists of readings. It is rather odd that no magnifications are provided for the electron micrographs. In fig. 14.5 two pictures are transposed and there are a number of annoying printing errors.

Monographs

73.

T. PEXIEDER. 1975. CELL DEATH IN THE MORPHOGENESIS AND TERATOGENESIS OF THE HEART
Springer, Berlin, etc. *Advan. Anat. Embryol. Cell Biol.* vol. 51, 3. 100 pp., 52 figs., 9 tabs., subject index

Summary of author's own research (mainly on chick embryos) from 1968 to 1973 against the background of the literature and findings in rat and man; special emphasis on cell death in bulbar cushions; study of role of hemodynamics by aortic clipping and organ culture; teratogenic experiments; 23-page bibliography.

74.

J. A. TUCKER et al. 1976. SURVEY OF THE DEVELOPMENT OF LARYNGEAL EPITHELIUM
Annals Publ. Co., St. Louis. *Annals Otol. Rhinol. Laryngol.* vol. 85, 5 pt. 2 (suppl. 30). 16 pp., 11 figs., 2 tabs.

Study of laryngeal epithelium in embryos (Carnegie stages 14-23), fetuses (10-36 wks.), neonate and adult; prenatal stages mainly with light microscopy, later stages with transmission and scanning electron microscopy.

75.

M. WINICK. 1976. MALNUTRITION AND BRAIN DEVELOPMENT
Oxford Univ. Press., London, etc. XVI, 169 pp., 61 figs., 6 tabs., subject index. £ 5.00, \$ 9.95

Contents: 1. Clinical malnutrition, 2. Normal cellular growth of the brain, 3. Nutrition and cellular growth of the brain, 4. Malnutrition and prenatal growth, 5. Malnutrition and mental development

The table of contents of this monograph speaks for itself. The author has "tried to select the most important animal and human studies, to evaluate them, and to develop an

overall picture of the consequences of early malnutrition . . .[for] brain structure and function".

Because the present reviewer is not an expert, he feels he ought to say that not all competent reviewers have been equally enthusiastic about the book. It is something between an exhaustive review and a basic account, and should perhaps be contrasted with the equally recent but much longer book by Ph. R. Dodge and others on the same subject.

The book is attractively produced and has many clear graphs and diagrams.

76.

D. WÜNSCH. 1975. BEITRÄGE ZUR KENNTNIS DES PRIMATEN-CRANIUMS No. 4, zur Kenntnis der Entwicklung des Craniums des Koboldmaki, *Tarsius bancanus borneanus*, Horsfield, 1821
Zentrum der Morphologie, Dr. Senckenbergisches Anat. Inst., Frankfurt. 117 pp., 44 figs.

Study based on two fetuses (48 and 55 mm. CRL) and two neonates; description of the skulls by region; reconstructions and micrographs; long bibliography.

Dissertations

77.

J. ALBERT. 1976. ANALYSE EXPÉRIMENTALE DES INTERACTIONS ENDO-MÉSO-DERMiques AU COURS DE L'ORGANOGENÈSE DE L'APPAREIL DIGESTIF CHEZ RANA DALMATINA BON. (AMPHIBIEN ANOURE)
Ph. D. thesis, Bordeaux. VI, 189 pp., 178 figs. 3-p. English and German summaries (mimeographed)

Very complete experimental-morphological study on embryos and larvae from middle neurula onwards; many different experimental approaches; determination of intra-endodermal groove formation; axis determination and late regulative properties of the endoderm; action of chorio-mesoderm on endodermal differentiation; line drawings and photographic plates.

78.

J. BHATTACHARJEE. 1976. ENZYME-HISTOCHEMICAL ANALYSIS OF RETINAL DEVELOPMENT IN THE MOUSE
M. D. thesis, Rotterdam. 108 pp., 55 figs., 2 tabs.

Based on four published papers, plus general introduction and discussion; day 10 of gestation to day 26 after birth; four enzymes studied; good histochemical micrographs and diagrams.

79.

X. DOR. 1976. ÉTUDE DES TORSIONS DISTALES DE L'ÉBAUCHE CARDIAQUE, développement normal et malformations expérimentales réalisées chez l'embryon de poulet
Ph. D. thesis, Nantes. 126 pp., 25 figs., 4 tabs (mimeographed)

Normal development of the conus arteriosus and its ridges in the chick embryo (from st. 23 onwards); experiments involving insertion of pieces of shell membrane or local cauterisation; comparative embryology and anatomy of the conus in vertebrates; conclusions with regard to transposition of great vessels; many line drawings and diagrams, some photographs.

80.

J. SMITH. 1977. QUANTITATIVE ANALYSIS OF SPONTANEOUS GROSS ELECTRICAL BRAIN ACTIVITY IN THE EMBRYONIC AND NEWLY HATCHED CHICK; quantification and scoring of EEG-activity in the developing chick by a mini-computer system
Ph. D. thesis, Utrecht. 134 pp., 29 figs., 6 tabs.

Development of EEG (recorded from accessory hyperstriatum) from stage 41 till two days post-hatching; quantitative analysis with three different computer algorithms; extensive computational methodology; comparison with cytological and biochemical literature data.

Symposium reports

81.

D. BERGSMA and W. LENZ, eds. 1977. MORPHOGENESIS AND MALFORMATION OF THE LIMB
Liss, New York. Birth defects: Original Article Series vol. XIII, 1. XII, 364 pp., 178 figs., 30 tabs., subject index. \$ 35.00

This conference was held in West Germany some time during 1976 and was attended by 14 specialists from various Western-European countries and 11 from North America. The volume contains 20-odd medium-length reviews of recent research, mostly that of the contributors themselves. All of them are in English and all are followed by usually brief discussions. About half of them are of predominantly clinical interest.

The first ten reviews will be read with interest by all those working on limbs or on organogenesis generally. Among the aspects dealt with are developmental anatomy, histochemistry, collagen biochemistry, and various teratogenetic and genetical approaches, all of this in man and various mammals (occasionally chick) and with reference to different developmental periods.

The book is well produced and profusely illustrated. The numerous photographs and micrographs are well reproduced.

82.

R. J. BLANDAU and D. BERGSMA, eds. 1977. MORPHOGENESIS AND MALFORMATION OF THE GENITAL SYSTEM
Liss, New York. Birth Defects: Original Article Series vol. 13, no. 2. XII, 161 pp., 73 figs., 11 tabs., subject index. \$ 18.00

Contributors: Blandau, Jirásek, Jones, Josso, Jost, Wai-sum O, Ohno, O'Rahilly, Rajfer, Smith, Winter

This symposium was held in the U. S. A. in July 1976 and was attended by specialists from North America and various European countries (two groups from Paris). Of the ten short to medium-length, up-to-date reviews two are of exclusively clinical interest, the others are of interest to mammalian and human embryologists and teratologists.

The subjects covered range from sex determination and differentiation in germ cells, through morphogenesis of various parts of the human genital system, to various endocrinological aspects. No discussions are recorded.

The book is well produced and illustrated; most of the photographs and light micrographs are well reproduced.

M. LIEBERMAN and T. SANO, eds. 1976. DEVELOPMENTAL AND PHYSIOLOGICAL CORRELATES OF CARDIAC MUSCLE
 Raven, New York. Perspectives in Cardiovascular Research, vol. 1. XIV, 322 pp., 145 figs., 28 tabs., subject index. \$ 25.00

This symposium was held in October 1974 in Tokyo. The 48 contributors are from many different countries, the majority from Japan and the United States. The contributions are for the most part brief research reports or surveys of recent research. Most focus on the application of relatively new techniques to embryonic heart muscle cells of birds and mammals, and all but a few are of interest to developmental biologists.

The 20 contributions deal successively with electron microscopy of heart cells *in vivo* and *in vitro*, with several aspects of membrane permeability and electrophysiology of heart cells, and with physiological correlates of heart muscle. Each contribution is followed by a carefully edited summary of the group discussion succeeding it.

The book is luxuriously produced and profusely illustrated. The photomicrographs and electron micrographs are of high quality.

84.

A. RAYNAUD, organiser. 1975. TEMPÉRATURE ET ORGANOGENÈSE; Table ronde organisée par la Société Zoologique de France
 Soc. Zool. France, Paris., Bull. Soc. Zool. France suppl. 1. 60 pp., 11 figs., 7 tabs.

Five papers in French by French authors; introduction by Raynaud; sex differentiation in *Emys* and *Orchestia*; effects of hypothermia in chick; cell proliferation and organogenesis in amphibian larvae.

85.

A. RAYNAUD, organiser. 1977. MÉCANISMES DE LA RUDIMENTATION DES ORGANES CHEZ LES EMBRYONS DE VERTÉBRÉS
 C.N.R.S., Paris. Colloques Intern. du C.N.R.S. no. 266. 423 pp., 85 figs., 55 pls., 26 tabs.
 Fr. 190.00 (paper)

"Rudimentation" is a newly coined French word which is unfortunately ambiguous in English. It refers, not to "rudiments" as used in English, but to rudimentary organs and their origin. This symposium was held in Toulouse in September 1976 and was attended by specialists mainly from France, the United Kingdom and other West-European countries. Most contributions are brief reviews or summaries of recent work. They are either in French or in English and most have a summary in the other language. Most are followed by a brief group discussion.

Of the 33 main contributions more than two thirds are of interest to embryologists. Ten of these deal with limb development, the others with a variety of other organs in many different vertebrates. Eight papers deal with developmental inhibition due to hormonal factors, nine with disturbances of morphogenetic mechanisms, and three with chemically induced limb abnormalities. A concluding general discussion has a section on the term "rudimentation" and two contributions on phylogenetic aspects of chick limb development.

The volume is well produced and illustrated with good line drawings, photographs and light and electron micrographs.

Treatises

86.

G. POSTE and G. L. NICOLSON, eds. 1976. THE CELL SURFACE IN ANIMAL EMBRYOGENESIS AND DEVELOPMENT

North-Holland, Amsterdam, etc. Cell Surface Reviews, vol. 1. XXIV, 766 pp., 151 figs, 20 tabs., subject index. D.fl.220.00, \$ 89.95

Contents: Fertilization (Gwatkin), Cytokinesis in animal cells: new answers to old questions (Arnold), The implanting mouse blastocyst (Sherman and Wudl), Cell surface antigens in mammalian development (Edidin), The transport of molecules across placental membranes (Miller, Koszalka and Brent), On the mechanism of metazoan cell movements (Trinkaus), Inductive tissue interactions (Saxén, Karkinen-Jääskeläinen, Lehtonen, Nordling and Wartiovaara), Cell coupling and cell communication during embryogenesis (Sheridan), Transduction of positional information during development (McMahon and West), Cell interactions in vertebrate limb development (Ede), Heart development: interactions involved in cardiac morphogenesis (Manasek), Development and differentiation of lymphocytes (Goldschneider and Barton), In vitro analysis of surface specificity in embryonic cells (Maslow)

This first volume of a new series is an ambitious undertaking, but the result is impressive. All of the 13 extensive reviews are authoritative, comprehensive, well organised, and interestingly written. A good balance is struck between events at the tissue and cell level and those at lower levels of organisation.

In works such as this it is always possible to disagree with the choice of subjects. I personally feel the chapter on inductive tissue interactions is a bit too long, and I regret that no attention is devoted to neuronal specificity and to work on insect imaginal discs. The chapter on positional information is stimulating but, perhaps inevitably, very speculative in places. The chapter bibliographies are extensive and up to date until 1975.

The book is superbly produced and illustrated.

Textbooks

87.

N. MACLEAN. 1977. THE DIFFERENTIATION OF CELLS

Arnold, London. Genetics - Principles and Perspectives: a series of texts, vol. 1. VIII, 216 pp., 96 figs., 14 tabs., subject index. £ 12.00 (cloth), £ 5.95 (paper)

This book was written for advanced undergraduate and graduate students of genetics and cell biology. It is on the whole a successful, well-balanced synthesis from the viewpoint of cell biology; the presentation of embryological data is not always correct.

The style is stimulating and the conclusions are carefully formulated. The subject is developed logically on the basis of evidence from a broad variety of organisms, starting with the *Protozoa*. Equal attention is devoted to the genome and the cytoplasm. There are separate chapters or sections on the role of hormones, on the cell surface and cell contact, on episomes, viruses and abnormal genetic elements, and on cancer and differentiation.

The illustrations on the whole serve their purpose well, but some do not match the text entirely, or the legends are not extensive enough to bring complete understanding. The 15-page bibliography is of course selective but very useful. The book shows signs of inadequate proofreading.

88.

S. H. BARONDES, ed. 1976. NEURONAL RECOGNITION

Plenum, New York; Chapman & Hall, London. XVI, 367 pp., 104 figs., 13 tabs., subject index. \$ 33.00

The significance of this book for developmental biologists is much greater than the title would perhaps suggest. Ever since the days of Harrison, Detwiler and Weiss the nervous system has been a paradigm for other developing systems. This book, by a team of predominantly American authors, expertly reviews the "state of the art" of the cellular and molecular aspects of neurogenesis.

The chapters of greatest interest to our readers are to be found in section I (Specificity in synaptic development and regeneration) and section III (Toward a molecular basis of neuronal recognition). We just mention some of the authors: Jacobson, Fambrough, Bunge in section I; Moscona, Roth, Toole, Barondes in section III. The contribution by Barondes and Rosen has the added interest of drawing a parallel between findings in cellular slime moulds and the nervous system.

89.

G. BUTSCHAK. 1976. BIOCHEMISCHE GRUNDLAGEN DER TEILUNG UND DIFFERENZIERUNG VON NORMAL- UND TUMORZELLEN

Fischer, Jena. 348 pp., 40 figs., 4 pls., 3 tabs., subject index. M 39.00 (paper)

This monograph is a thorough, very comprehensive and critical review of the biochemical basis of cell division and cell differentiation. The more is the pity that it has taken so long to produce. It reflects the state of the field in the beginning of 1973, but so much has happened since that in many areas the author would have placed a different emphasis today. Nevertheless, for the literature prior to about 1973 it is a valuable reference work.

The book is in three well-organised main parts: Biochemistry of cell division, Biochemistry of cell differentiation, and Regulation of cell division and cell differentiation in tumour cells. There are 12 subsections in all, which all have concise but clear summaries.

The book is produced in small offset print and is sparsely illustrated. The references number more than 850 in all.

90.

T. P. EVGENEVA. 1976. INTERCELLULAR INTERACTIONS AND THEIR ROLE IN EVOLUTION (in Russian)

Publ. House Nauka, Moscow. 222 pp., 77 figs., 10 tabs. 1R 20k

Review of studies of cell and tissue interactions in invertebrates as studied in diffusion chambers; morphogenetic capacities *in vitro*; lower and higher marine invertebrate phyla and Tunicates; role of the cell surface (SEM); 24-page bibliography (6 pp. Russian, up to date till 1975); many light and scanning micrographs of reasonable quality.

91.

P. O. SEGLEN. 1974. DIFFERONES; control of gene expression and cellular differentiation by hormones and other agents, with particular emphasis on liver tissue
Univ. Forlaget, Oslo, etc. Norwegian J. Zool., vol. 22, suppl. 1. 131 pp., 4 figs.

Survey and integration of information from various sources bearing on the control of gene expression; 10-page chapter on dynamic theory of differentiation, including classification of "differones" (all agents capable of inducing differentiation, whether intra- or extra-cellular or environmental); 50-page review of actions of differones, with special reference to rat liver cells and hepatoma; some 1,600 references up to 1973.

92.

R. A. BRADSHAW, W. A. FRAZIER, R. C. MERRELL, D. I. GOTTLIEB and R. A. HOGUE-ANGELETTI, eds. 1976. SURFACE MEMBRANE RECEPTORS, interface between cells and their environment
Plenum, New York, etc. Nato Advanced Study Inst. Series, Ser. A: Life Sciences, vol. 11. XIV, 482 pp., 189 figs., 60 tabs., subject index. Dfl. 126.50

We briefly announce this volume in the interest of our readers, particularly those working on cellular slime moulds. The NATO Advanced Study Institute in question was held in Bellagio in September 1975. Six of the 32 research reports deal with *Dictyostelium*, particularly with cell-surface lectins and cyclic AMP receptors (one deals with a macromolecular effector of cell differentiation). The authors are Barondes and Rosen and their group, Gerisch, Malchow *et al.*, Town, and Darmon *et al.*

Other papers deal with sponge cell aggregation (Burger's group), adhesion of neurons (Gottlieb's group), and membrane components in differentiating muscle cells (Prives).

93.

N. MÜLLER-BÉRAT, ed. 1976. PROGRESS IN DIFFERENTIATION RESEARCH, proceedings of the Second International Conference on Differentiation, Copenhagen, Denmark, 8-12 September, 1975

North-Holland, Amsterdam; Amer. Elsevier, New York. X, 588 pp., 241 figs., 2 pls., 69 tabs., index to contributors and subject index. \$ 46.25, Dfl. 120.00

This conference brought together a large number of workers from all over the world. Among the contributors were established authorities but also many younger people. Like the report of the first conference in this series the book is heterogeneous but provides a useful cross section of the many different approaches and systems being used at present. Most of the contributions are short research reports or reviews of recent work.

The 58 contributions are grouped into six sections as follows: Cell proliferation, growth and expression of differentiation potential by proliferating cells (9 papers); Regulation of gene activity and chromatin activity during cell differentiation (11); Cell membranes and cell surfaces in relation to differentiation (4); Aspects of carcinogenic disorders and differentiation (15); Hormonal induction of cell differentiation (7); Normal and malignant hemopoiesis as a model of differentiation (12). No group discussions are recorded.

The book is produced from typescripts in good offset print and profusely illustrated; the numerous photographs are well reproduced. The subject index is curiously deficient.

DEVELOPMENTAL BIOCHEMISTRY, MOLECULAR BIOLOGY (see also 13,16,25,62 ,
63,89,91,93)

Textbooks

94.

E. H. DAVIDSON. 1976. GENE ACTIVITY IN EARLY DEVELOPMENT. 2nd edit. Academic Press, New York, etc. XVI, 452 pp., 87 figs., 16 tabs., combined subject and species index. \$ 18.50, £ 13.15

Contents: 1. Introduction: the variable gene activity theory of cell differentiation; 2. The onset of genome control in embryogenesis; 3. First indices of differential embryo

cell function; 4. Quantitative aspects of protein synthesis in early embryos: the role of maternal components; 5. Transcription in early embryos; 6. RNA sequence complexity and structural gene transcription in early embryos; 7. Localization of morphogenetic determinants in egg cytoplasm; 8. Lampbrush chromosomes and the synthesis of heterogeneous nuclear and messenger RNA's during oogenesis

An indication of the enormous growth of the area covered by this book is the length of the bibliography, which has almost doubled since the first edition even though part of the original references have been deleted. The contents of the book have been considerably rearranged and the book is in fact almost a new one. We must be grateful to the author for undertaking this arduous task with such excellent results and without unduly increasing the size. That the treatment is basically organised around his personal views and interpretations is understandable and increases rather than decreases the book's value.

As in the first edition, the basic tenet is that regulation at the transcriptional level is the fundamental process underlying differentiation and development. This, and the emphasis on early stages, is probably the reason why a class of problems which are considered fundamental by many embryologists, i.e. induction, determination and competence, receive little or no attention as subjects in their own right. One hopes that these problems, though elusive at present, will also capture the attention of molecular embryologists in the years to come.

Apart from numerous extensions of the original material, the major new features are ch.4 and the first section of ch.6, which deals with nucleic acid sequence complexity and the kinetics of renaturation and hybridisation.

The book is attractively produced and illustrated. The 48-page bibliography is remarkably up to date. (An oddity is that Crawford and Wilde's 1973 experiments with pactamycin in *Fundulus* are not included.) The absence of an author index is to be regretted; it would have been easy to use the bibliography for that purpose.

Monographs

95.

N.MACLEAN. 1976. CONTROL OF GENE EXPRESSION

Academic Press, London, etc. XII, 348 pp., 21 figs., 6 tabs., author and subject indexes. £ 7.80, \$ 19.25

Contents: 1. The control of gene expression and its levels of action; 2. Gene expression in prokaryotes; 3. Experimental systems of differential gene function in eukaryotes - systems involving one type of protein; 4. Experimental systems of differential gene functions in eukaryotes - systems of limited complexity; 5. Experimental system of differential gene functions in eukaryotes - systems not well understood in molecular terms; 6. RNA involvement in gene expression; 7. General concepts of gene regulation

The level of treatment in this well-written book is between that of an introduction and that of a specialised monograph. For the student making up his mind on what research to embark on it is a stimulating guide. The main function it may perform for the specialist is to make him more aware of the advances in and the potential of systems other than that on which he happens to be working.

The main substance of the book is to be found in chapters 3-5. In ch.3 "system" means a particular type of protein; eight such proteins are discussed, ranging from immunoglobulins to vertebrate egg proteins and including two insect proteins. In chs. 4 and 5 "system" usually means a tissue, organ or organism, occasionally an approach or a class of proteins. Many phyla, both plant and animal, are represented.

The bibliography, though selective, covers 34 pages and is up to date until 1974. The book is attractively produced and illustrated.

96.

J. HAKKARAINEN. 1975. DEVELOPMENTAL CHANGES OF PROTEIN, RNA, DNA, LIPID, AND GLYCOGEN IN THE LIVER, SKELETAL MUSCLE AND BRAIN OF THE PIGLET; a methodological and experimental study with special reference to protein synthesis

D. V. M. thesis, Stockholm. Acta Veterinaria Scandinavica suppl. 59. 198 pp., 40 figs., 17 tabs.

Modified method for sequential and quantitative separation and determination of various components in frozen tissues; studies of protein synthesis with ^{14}C -leucine; comprehensive developmental studies from 45 d. *in utero* till 42 d. postnatally; comparison with rat and other mammals.

DEVELOPMENTAL GENETICS, EVOLUTION (see also 87,94,95)

Monographs

97.

A. McLAREN. 1976. MAMMALIAN CHIMAERAS

Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biology Series vol. 4. VI, 154 pp., 43 figs., 13 tabs., author and subject indexes. £ 8.00

By the time this review appears this monograph will have been completed three years ago, which is a long time in a rapidly moving field like this. Yet we may safely say that it will long remain a firm foundation to build on for those who are entering the field, as well as a great help for all mammalian embryologists.

The subject matter is subdivided into 11 short, readable chapters. Two of these deal primarily with experimental-embryological aspects, five with developmental genetics. The last of these is entitled Chimaeras *versus* mosaics. A separate chapter thoughtfully and critically discusses the distribution of cell populations in the embryo, in other words, the problem of "clones and patches".

The book is beautifully produced and well illustrated. The 14-page bibliography ends in 1974, with the exception of the publications of the author and her associates. Three important papers published in 1975 have been added in proof. The subject index could have been longer; particularly unfortunate is the omission of "determination" and "allocation".

98.

R. MATSUDA. 1976. MORPHOLOGY AND EVOLUTION OF THE INSECT ABDOMEN, with special reference to developmental patterns and their bearings upon systematics
Pergamon, Oxford, etc. Internat. Series in Pure and Applied Biology, Zool. Div. vol. 56. VIII, 534 pp., 155 figs., taxonomic, author and subject indexes. £ 16.00, \$ 35.00

The author of this exhaustive monograph has previously written two similar, though shorter works, one on the insect head (1965) and one on the thorax (1970). In the present work, however, more stress is placed on developmental aspects. Part I, which occupies 48 pages and discusses these aspects in a general way, is not restricted to the abdomen nor indeed to insects. It deals with various aspects of heterochrony and with substitution, homology and analogy of organs on the basis of the modern literature. It is odd that heteromorphosis or homeosis, for which some recent authors have suggested important roles in evolution, is not even mentioned in passing.

Part II (60 pp.) deals mainly with general aspects of abdominal segmentation, abdominal appendages, and external and internal genitalia. Finally, Part III covers the available data in the individual orders. In most orders some attention is devoted to the origin of the

germ cells. The musculature is not treated because the author is convinced that it is not important in establishing homologies.

The book is well produced and illustrated with numerous good line drawings. It has a bibliography of 71 pages.

Reference works

99.

R. RIEGER, A. MICHAELIS and M. M. GREEN. 1976. GLOSSARY OF GENETICS AND CYTOGENETICS, classical and molecular. 4th completely revised edit. Springer, Berlin, etc. 647 pp., 100 figs., 8 tabs. DM 36.00, \$ 14.80, £ 8.35 (paper)

It is a pleasure to announce a new edition of this well-known glossary. The tremendous development of the field since 1968 is reflected in a size increase of some 150 pages. About half of the text has been completely rewritten. One seldom turns to the book in vain. After spending an hour with it the only serious omissions this embryologist (!) could find were "germinal granules" and "sturt".

DEVELOPMENTAL PHYSIOLOGY (incl. endocrinology, immunology, behaviour, etc.) (see also 27,29,41,44,47,50,51,70,72,75,80,91,93)

Textbooks

100

M.-Th. CHALUMEAU. 1976. PRÉCIS D'IMMUNOLOGIE
Presses Univ., de France. Serie: Le Biogiste. 239 pp., 25 figs., 8 tabs.

This is a well-written and well-organised introductory text. The reason why we review it here is that it contains several sections which could be useful to students and others interested in developmental immunology.

Part One deals with the fundamentals of the immune reaction and its technical, biochemical and cellular aspects. Part Two treats the immune reaction in the living organism. It contains brief accounts of the development of immune competence and of the immune system (including cellular differentiation). Part Three, entitled The immune reaction in the laboratory, has a final section on the application of immunological techniques to the problem of cellular differentiation.

Although authors' names are frequently used in the text, the bibliography is restricted to nine recent books and articles. The book is illustrated with good line drawings and diagrams and has a useful glossary.

Monographs

101.

B. L. MIRKIN, ed. 1976. PERINATAL PHARMACOLOGY AND THERAPEUTICS
Academic Press, New York, etc. XII, 455 pp., 38 figs., 31 tabs., subject index. \$ 24.50

Contents: 1. Placental transfer of pharmacologically active molecules (Mirkin and Singh); 2. Drug biotransformation reactions in the placenta (Juchau); 3. Disposition of drugs in the fetus (Waddell and Marlowe); 4. Pharmacologically induced modifications of behavioral and neurochemical development (Thorburg and Moore); 5. Clinical implications of perinatal pharmacology (Yaffe and Stern)

This book was written by an all-American team of experts. It consists of five well-organised reviews which discuss critically and in depth the main areas that are currently under active investigation in this field. Areas where the amount of data was considered in-

sufficient to allow of substantive conclusions were omitted.

The table of contents above speaks for itself. Ch. 5 has a 6-page section on teratogenic effects of drugs. The chapter bibliographies run up to 1972/73, with occasional updatings. They reflect the rather strong bias towards literature published in English which is common in books by Anglo-Saxon authors.

The book is well produced and adequately illustrated.

102.

P. W. NATHANIELSZ. 1976. FETAL ENDOCRINOLOGY, an experimental approach North-Holland, Amsterdam, etc. Monographs in Fetal Physiology, vol. 1. XIV, 261 pp., 72 figs., 13 tabs., subject index. Dfl. 75.00, \$ 30.75

This monograph is a thorough and critical review of fetal endocrinology against the background of sequential data obtained from the chronically catheterised sheep fetus. The author carefully evaluates the similarities and differences between the sheep and other experimental mammals and man, and devotes much attention to the criteria of physiological normality during experiments.

After a general introduction and a chapter on methodology the subject matter is treated partly by organ systems (testis, hypothalamo-hypophysial-portal system, thyroid - two chapters of which one on ruminants - and neurohypophysis), and partly by hormones. A final chapter deals with parturition and the feto-placental unit. An appendix lists methods for the calculation of the production rate of fetal hormones. The endocrinology of carbohydrate and intermediary metabolism will be dealt with in a subsequent volume of the series.

The book is luxuriously produced; it is illustrated mainly with graphs and line drawings. The bibliography numbers over 600 titles; I do not know whether this reflects the actual state of things, but it is striking that it contains almost no non-English titles.

Dissertations

103.

X. CHARDONNENS. 1976. LA TOLÉRANCE AUX ANTIGÈNES D'HISTOCOMPATIBILITÉ PENDANT LA MÉTAMORPHOSE DE L'AMPHIBIEN ANOURE, XENOPUS LAEVIS: un modèle pour l'étude de la tolérance au self
Ph. D. thesis, Genève. 173 pp., 10 figs., 9 tabs. (mimeographed)

Study on larval, metamorphic and adult stages, using skin grafts, mixed lymphocyte reaction and agglutination reaction; conclusions regarding major and minor histocompatibility systems; evidence for tolerance during metamorphosis.

Symposium reports

104.

M. DURCHON, organizer. 1976. ACTUALITÉS SUR LES HORMONES D'INVERTÉBRÉS
Centre Natl. de la Recherche Scient., Paris. Colloques Internat. du C. N. R. S. 251. 516 pp., 156 figs., 40 tabs. Ffr. 130.00

This international symposium took place in Villeneuve d'Ascq in September 1975. The majority of the participants were from various European countries (with France predominating), but a dozen came from North America. The stress lay on the biosynthesis, metabolism and cellular action of invertebrate hormones. Of the 50 contributions at least ten may be of interest to developmental biologists. These deal with hydroids, planarians, annelids (3), molluscs, and insects (5). Three deal specifically with oogenesis in *Perinereis* and *Octopus*.

The papers are in French or English but all have summaries in both languages. The volume is illustrated with line drawings.

L. I. GILBERT, ed. 1976. THE JUVENILE HORMONES
Plenum, New York, etc, X, 572 pp., 141 figs., 116 tabs., subject index. \$ 54.00

Parts: I. Chemistry of the juvenile hormones and juvenile hormone analogs; II. Biosynthesis and metabolism of juvenile hormone; III. Juvenile hormone effects at the cellular level; IV. Juvenile hormone effects at the molecular level (binding and transport); V. Effects of juvenile hormone at the molecular level (protein synthesis)

This symposium was held in Lake Geneva, Wis. in November 1975. Although it is evidently of major significance to insect endocrinologists, at least one third of it is of importance to developmental biologists. The participants came mainly from North America and Western Europe. Most of the contributions are medium-length research reports; some contain considerable review material; much of the material was unpublished at the time of the symposium. Each of the five parts listed above is preceded by a most useful and interesting summary of about half a dozen pages.

Almost all of the eight papers in Part III are of direct interest to workers in insect morphogenesis. Most focus on the interaction between JH and ecdysone. Among the contributors we mention the following: Krishna Kumaran, Riddiford, Oberlander, Masner, Lezzi, Willis, and Sehnal. A paper by Fristrom *et al.* in Part V deals with *Drosophila* imaginal discs.

The book is produced in good offset print and adequately illustrated.

M. LÜSCHER, ed. 1976. PHASE AND CASTE DETERMINATION IN INSECTS, endocrine aspects
Pergamon, Oxford, etc. VIII, 130 pp., 34 figs., 24 tabs., £ 7.50, \$ 15.00

Contributors: Brian, de Wilde, Hales, Hrdý, Lenz, Lüscher, Rembold, Röseler, Steel, Velthuis

The notion of an involvement of hormones (particularly JH) in phase and caste determination is a relatively recent one. This symposium, which was held in Washington DC some time during 1976, was devoted to this notion. Most of the contributors came from Western Europe (one each from Australia and Canada). The introductory paper was contributed by Lüscher. Nine of the ten main contributions are reviews in English of recent work on various bees, ants, termites and aphids. The paper by Hrdý is only an abstract.

In the interest of rapid publication the papers were reproduced direct from the type-scripts and no attempt was made to reduce overlap. The book is adequately illustrated; it has no indexes.

METHODS (no entries, but see 58,96,102)

HISTORY, BIOGRAPHIES, etc.

Monographs

D. J. HARAWAY. 1976. CRYSTALS, FABRICS, AND FIELDS, metaphors of organism in twentieth-century developmental biology
Yale Univ. Press, New Haven, etc. X, 231 pp., combined subject and name index. \$ 15.00

The argument in this book hinges strongly on Thomas Kuhn's controversial ideas concerning the evolution of science. The author regards the twentieth-century switch from mechanicism to organicism as a paradigm change in the Kuhnian sense. This aspect of the

book will appeal most to the professional historian and philosopher of science.

However, quite apart from such issues the bulk of the book will be of great value to those embryologists who are interested in the origin of the ideas and concepts they are using, and generally to all biologists who want to be conscious of the more philosophical context of their often automatic or traditional ways of thinking. And it cannot be denied that a concept such as morphogenetic field, though pronounced meaningless by some, is still considered useful and even indispensable by many others.

The part of the book to which I am referring consists of chapters 2-5. Ch.2 is a thoughtful brief essay on the origins and elements of organicism. The other three chapters lucidly review the intellectual development of three great men of the era in question: Ross G. Harrison, Joseph Needham, and Paul Weiss. These make delightful reading for anyone even remotely interested.

The book is attractively produced but is disfigured by rather many printing errors. It has no illustrations. The most recent references (e.g. Thom, Wolpert) do not include the definitive published works of these authors. The long index conforms to scholarly standards.

MISCELLANEOUS ITEMS (no entries)



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