GENERAL EMBRYOLOGICAL INFORMATION SERVICE

AN INTERNATIONAL DIRECTORY
OF CURRENT RESEARCH
IN DEVELOPMENTAL BIOLOGY

VOLUME 18, part 1

EUROPE

data collected during 1979

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

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Deputy Director of the Hubrecht Laboratory

Managing Editor: B.Z.Salomé

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CONTENTS

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 Invertebrata (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.

In volume 17 (1977/78) a total of 3,372 developmental biologists were listed. This is twice the number listed 15 years ago (1963/64), but about the same number as in vol.16 (1975/76). The number of persons listed in the present part of vol.18 (Europe only) again shows some increase over 1977 (about 8%).

For some years now we have regularly called your attention to the financial situation of the G.E.I.S., which is causing concern due to the fact that the increase in the number of collaborators, however welcome in itself, and the rise in the cost of printing are no longer met by an increasing number of subscriptions; in fact this number is steadily declining.

We take pleasure in announcing a slight reduction in the Dutch guilder price for the present volume. This could be achieved by simplifying the Subject Index (see page 151) and by producing some of the chapters directly from ready copy. However, the salaries of the Hubrecht Laboratory personnel engaged in producing the G.E.I.S. are not taken into account in calculating the subscription price. It is not certain whether in the present economic situation the Hubrecht Laboratory can continue providing this Service for developmental biologists. Efforts are being made to obtain support from international organisations, but in any case the continuing interest and support of the international community of developmental biologists, reflected in a rise of the number of subscriptions, remains of paramount importance for the continuation of the Service.

J.Faber
B.Z.Salomé

CHANGES OF ADDRESS IN COUNTRIES OUTSIDE EUROPE

received since the appearance of volume 17, part 2

CLUTTER, Ms. M.E.; Ph.D. - Natl. Sci. Found., WASHINGTON, DC 20550, USA
FAIN, Ms. M.J.; Ph.D. - Univ. of California, LOS ANGELES, CA 90024, USA
KISHIDA, Y.; D.Sc. - Dept. of Biol., Sch. of Educ., Okayama Univ., 3-1-1 Tsushima - Naka, OKAYAMA 700, Japan
LAUDER, J.M.; Ph.D. - Dept. of Anat., Univ. of North Carolina, 111 Swing Bldg. 217 H, CHAPEL HILL, NC 27514, USA
ZWAAN, J.; M.D., Ph.D. - Harvard Med. School, Mass. Eye and Ear Infirmary, Howe Lab. of Ophthalmol., 243 Charles St., BOSTON, MA 02114, 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 1979. 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. 17 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. 17 who have not returned their sheets. Name, degrees, and addresses were reprinted unchanged from vol. 17 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. 17 whose death has come to our attention (marked †).

Persons listed in vol. 17 but not in vol. 18:

a. Persons who had research subjects in vol. 17 but are no longer engaged in research in developmental biology.

b. Persons who had no research subjects in vol. 17 and have not returned the sheets for both vol. 17 and 18.

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

ABERCROMBIE, M. † – Strangeways Res. Lab., CAMBRIDGE CB1 4RN, England

ABRAMOVA, Ms. N. B. – N. K. Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR

a Regulation of mitochondrial enzyme activity in early development; microinjection of mitochondria in oocytes and fertilized eggs; distribution of mitochondria in egg. Misgurnus fossilis (Teleostei)

b Gene expression in early development; genetical control of mitochondrial enzyme activity; hybridization. Same species as a, and other spp. (Cyprinoidei, Teleostei)

ÅBRO, A. – Inst. of Anat., Univ. of Bergen, Årstadvei 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, 4200 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. "F. Raffaele", Viale dell'Università 32, 00161 ROMA, Italy

a Differentiation of interrenal and Stilling cells in the larval adrenal gland (morphology and ultrastructure). Rana esculenta complex (Anura)

ACHERMANN, L.; Dipl.nat. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

a Regeneration capacity of mechanically isolated ecto- and endoderm. Podocoryne carnea (Hydrozoa)

ADAMCZEWSKA-GONCERZEWICZ, Z.; Ph.D. – Lab. of Neurochem., Inst. of Neurol. and Sens. Organs, 49 Przybyszewskiego St., 60-355 POZNAŃ, Poland

a Biochemistry of lipids in the developing optic nerve. Oryctolagus cuniculus (Lagomorpha)

ADAMS, C. E.; Dr. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)
b Mechanisms involved in sperm transport through female genital tract; competitive fertilization between and within species; egg transport through the oviduct; fate of eggs following asynchronous transfer; survival of in vitro cultured eggs; factors affecting survival of eggs during delayed implantation; luteotrophic role of the early embryo. (Animalia)
c Sexual behaviour, hormone levels and fertility. Oryctolagus cuniculus (Lagomorpha)
d Control of implantation and delayed implantation. Meriones unguiculatus (Rodentia), Mustela vison (Carnivora)

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: appearance of endoderm-specific markers for example alpha-foetoprotein, transferrin and basement membrane associated products such as collagen. Mus musculus (Rodentia)
b Membrane glycoproteins of teratocarcinoma stem cells and their differentiated products. Same species as a

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. (Urodela)
b Cytoplasmic control of first phases of cleavage. (Urodela)

AISENSTADT, T. B. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
a Oogenesis. Hydra oligactis, H. attenuata, Obelia loveni, O. flexuosa (Hydrozoa)
b Origin of interstitial cells and transformation to germ cells. (Hydrozoa)

ÅKESSON, B. H.; Fil.Dr. – Dept. of Zool., Univ. of Göteborg, Fack, 400 33 GÖTEBORG, Sweden
a Reproduction and larval development. Ophryotrocha, 12 spp. (Polychaeta)
b Asexual reproduction by schizogenesis. Dorvillea, 2 new spp. (Polychaeta)

AKHABADZE, L. V.; Dr. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, USSR
a Development and teratology of the iris and ciliary body in organ culture. Rattus norvegicus (Rodentia) (with O. G. STROEVA)
b Cell cycle in differentiation of retinal pigment epithelium in dependence of intraocular pressure (autoradiography). Same species as a, and Gallus domesticus (Aves) (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)
b Cytochemistry of yolk globules in the oocyte. Pisania maculosa, Murex trunculus (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., Mendeleevsky St. 5, LENINGRAD 199164, USSR
a Embryology. (Lubomirskiidae, 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 Development of synapses in the embryo. Salmo trutta fario (Teleostei)
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)
b Gibberellin biosynthesis in seed tissues. Phaseolus coccineus, P. vulgaris (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
AMELUNG, M. – Inst. für Hydrobiol. und Fisch.wiss., Univ. Hamburg, Olbersweg 24, 2000 HAMBURG 50, BRD (Germany)
a Influence of Fe-content on embryonic development. Astyanax mexicanus, Aphyosemion nigerianum, Salmo gairdneri (Teleostei)
AMER, M.; M.Sc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
AMOROSO, E. C.; F.R.S., Prof. – A.R.C. Inst. of Anim. Physiol., Brabaham, CAMBRIDGE CB2 4AT, England
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 limb morphogenesis. Gallus domesticus (Aves)
b Regulative capacities of the wing anlage. Same species as a
c Factors and mechanisms of shaft bone development. Same species as a
ANDERSEN, Ms. L.; D.D.S. – Dept. of Oral Pathol., Royal Dent. Coll., Vennelyst Bd., 8000 ÄRHUS C, Denmark
a Migrating epithelial cells in palatal wounds (cytology; scanning electron microscopy; morphometry). 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)
ANDRES, G.; Dr., Prof. – Inst. für Allgem. Zool. der Univ., Saarstr. 21, 6500 MAINZ, BRD (Germany)
ANDREUCCETTI, P.; Dr. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
a Oogenesis. Discoglossus pictus (Anura)
b Relationships between follicle cells and the growing oocyte, especially differentiation and function of pyriform cells. Lacerta s. sicula (Lacertilia)
ANDRIEUX, B.; Dr.3è cycle – Lab. Biol. Dévl., Centre Cytol. Exp. CNRS, 67 Rue Maurice Günsbourg, 94200 IVRY-sur-SEINE, France
a Organogenèse et cytodifférenciation de l'hypophyse (microchirurgie, cytologie ultrastructurale). Pleurodeles waltl (Urodela)
ANDRONICO, Ms. F.; Laur.Biol.Sci. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy
a Structure and replication of ribosomal RNA genes; individual heterogeneity in number and organization of ribosomal genes. Triturus vulgaris meridionalis (Urodela)
ANGELIER-DELOBEL, Ms. N.; D.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 Transcription: visualization of nucleolar and chromosomal genes in oocytes; action of inhibitors on nuclear RNA biosynthesis. Pleurodeles waltl, P. poireti (Urodela)
ANTILA, E. J.; M.Sc. – Dept. of Med. Biol., Univ. of Helsinki, Siltavuorenpenger 20A, 00170 HELSINKI 17, Finland
a Steroid metabolism studied by incubation with labelled precursors, gas chromatography and TLC in: 1. oocytes, embryo and larva of Xenopus laevis, Rana temporaria, Triturus vulgaris (Amphibia); 2. preimplantation stages of Mus musculus (Rodentia); 3. embryos of Gallus domesticus (Aves) and Salmo gairdneri (Teleostei); 4. teratocarcinoma cells. Mus musculus (Rodentia), Homo sapiens (Primates)
ANTON, H. J.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, BRD (Germany)
a Protein metabolism during regeneration processes. Triturus vulgaris, T. alpestris (Urodela)
b Amino acid metabolism in regenerating tissues. Ambystoma mexicanum, Triturus vulgaris (Urodela)
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, USSR
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, UK

a Modifications of cell surfaces during cell cycle and differentiation (electron microscopy)
b Effects of divalent cations on cellular processes

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)

ARMENGOL BUTRON, J. A. – Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med., Univ. of Sevilla, SEVILLA, Spain
a Histogenesis of the retina: electron microscopy of synapses. Gallus gallus (Aves)

ARMITAGE, Ms. S. E.; B.Sc. – A.R.C. Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England
a Effects of prenatal sound stimulation on postnatal behaviour. Cavia porcellus (Rodentia), Ovis aries (Artiodactyla)

ARNOLDS, W. J. A.; M.Sc. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands
a Genomic control of early development studied by X-irradiation induced lethal mutants. Lymnaea stagnalis (Gastropoda)

ARONSSON, S. B.; Cand.phil. – Dept. of Zool., Univ. of Göteborg, Fack, 400 33 GÖTEBORG, Sweden
a Origin of the aminergic pars distalis nerves in the larval hypophysis (transection experiments). Rana temporaria (Anura)
b Comparative study of the occurrence of the aminergic pars distalis nerves in the larval hypophysis. (Amphibia)

ARTIS, J. P. – Lab. de Zool., Fac. des Sci., 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

ASHBY, K. R.; Ph.D. – Dept. of Zool., Univ. of Durham, Science Labs., South Rd., DURHAM DH1 3LE, England
a Development of the reproductive system and modifications induced by treatment with steroid hormones during sexual differentiation. Salmo irideus, S. trutta (Teleostei), Xenopus laevis (Anura)

AUGSTEN, H.; Dr.habil., Prof. – Sekt. Biol.-Pflanzenphysiol., Friedrich Schiller Univ., von-Hase-Weg 3, 69 JENA, DDR (Germany)

AUGUSTI (TOCCO), Ms. G.; Dr. – Lab. di Elettronica Quantistica, Consiglio Naz. delle Ricerche, Via Panciatichi 56/30, 50127 FIRENZE, Italy
a Mechanisms regulating the expression of differentiated functions in neuroblastoma culture, especially role of cell surface

AUROUX, M.; D.Méd., Prof. – Lab. d'Histol.-Embryol., CHU Bicêtre, 78 av. du Gén.Leclerc, 94270 KREMLIN-BICÊTRE, France
a Perturbations tardives du système nerveux central compatibles avec la vie (baisse de la capacité d'apprentissage). Rattus norvegicus (Rodentia)
b Influence of father on quality of offspring. Same species as a
c Cytoplasmic membrane of spermatozoa. Homo sapiens (Primates)

AUSTIN, C. R.; D.Sc., Prof. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England

AZOUBEL, R.; M.D., Ph.D., Prof. – Dept. de Morfol. Hum. Funct. e Aplic., Univ. de São Paulo, C.P. 301, 14.100 RIBEIRÃO PRÊTO, S.P., Brazil
temporarily: Dept. of Anat., Univ. of Leicester, Med. Sci. Bldg., University Rd., LEICESTER LE1 7RH, England
a Effects of glucocorticoids on development. Mustela putorius furo (Carnivora), Mus musculus (Rodentia)
b Effects of heterotopic mature trophoblasts on post implantation embryo in vitro. Rattus norvegicus (Rodentia)

BABAYEVA, Ms. A. G.; Dr.med. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, USSR

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, USSR
a Development of regional differences in neural retina and pigment epithelium (electron microscopy). Acipenser stellatus, A. güldenstädti (Chondrostei)

BACHMANN, P.; Dr. – Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM 1, BRD (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)

BÄCKSTRÖM, S. A. A.; Fil.Dr. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
a Cyclic nucleotides in morphogenesis and behaviour of larvae: Psammechinus miliaris (Echinoidea) and embryos: Xenopus laevis (Anura)

BADET, Ms. M. T.; Dr.biol.anim. – Centre de Morphol. Expér., Inst. de Biol. Anim., C.N.R.S., Av. des Facultés, 33405 TALENCE, France
a Immune reactions against embryos in pregnant females. Salamandra salamandra (Urodela)

BAECKELAND, E. G.; M.D., Prof. – Inst. d'Histol. et d'Embryol., Univ. de Liège, 20 rue de Pitteurs, 4020 LIÈGE, Belgium
a Influence of amniocentesis on foetus and amniotic epithelium. Rattus spec. (Rodentia)

b Mechanism of fusion of palatal shelves in vitro. Same species as a

BAEHNY, A. – Dépt. d'Embryol. et Tératol. Exp., Inst. de Biol. Anim., Fac. des Sci., Univ. de Fribourg, 1700 FRIBOURG, Switzerland

a Chimioteratogenesis. Gallus gallus (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, USSR

BAFFONI, G. M.; Dr.Biol., Prof. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy

a Regeneration of nerve fibres during larval life. (Urodela)

BAGER, Ms. S. M.; M.Sc. – Finsen Lab., Finsen Inst., Strandboulevarden 49, 2100 COPENHAGEN Ø, Denmark

a Effects of testosterone, estrogen, thyroid hormone and gonadotropins on development and function of ovarian follicles. Mus musculus (Rodentia)

b Effect of ionizing radiation on development of follicles in the ovary. Same species as a, and non-human Primates

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., Fac. de Biol., Univ. de Barcelona, plaça Universidad, BARCELONA-7, Spain

a Cell cycle kinetics of neoblasts and differentiating cells (thymidine incorporation). Dugesia tigrina (Turbellaria)

b 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, 1095 KJ AMSTERDAM, Netherlands

a Factors underlying specific interneuronal connections; morphology and physiology of spinal ganglion cells (skin-spinal cord preparation). Rana pipiens, Discoglossus pictus (Anura)

b 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 EH3 9EW, Scotland, UK

a Oogenesis. (Rodentia; Primates)

b Effects of X-rays on female germ cells. Same species as a

c Fine structure and metabolic activity of oogonia and oocytes. Same species as a

d Cytology and endocrinology of ovulation, fertilisation, and early development in vitro. Rattus norvegicus, Mus musculus (Rodentia), Homo sapiens and others (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, 1095 KJ AMSTERDAM, Netherlands

BALAKHONOV, A. V. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR

a Action of immunodepressors on reparative and physiological regeneration before and after hatching. Gallus gallus (Aves)

BAŁAKIER, Ms. H.; Ph.D. – 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)

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 Organ culture of liver, heart, skin, kidney and other organs. Amphiuma means (Urodela), Xenopus laevis (Anura)

c 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.-GENESE, 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)

BARASA, A. – Ist. di Istol. ed Embriol. Gen., Fac. di Med. Vet., Univ. di Torino, Via Nizza 52, 10126 TORINA, Italy

a Grafts of the retinal pigmented epithelium. Gallus gallus, Coturnix coturnix (Aves)

BARASTEGUI ALMAGRO, C. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, 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-shell, cuticle and epidermal gland (Verson's gland and colleterial gland). Galleria mellonella (Lepidoptera)

BARBOSA AYUCAR, E.; Dr.med., Prof. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain

BARD, J. B. L.; Ph.D. – M.R.C. Clin. and Popul. Cytogenet. Res. Unit, Western Gen. Hosp., EDINBURGH EH4 2XU, Scotland, UK

a How cells use their properties to build structure: formation of the cornea and the organisations that appear when cells are cultured. Xenopus spec. (Anura), Gallus domesticus (Aves)

b Striping patterns using Turing kinetics as a model system for their generation. Felis domestica (Carnivora), Equus quagga, E. grevyi (Perissodactyla)

BARENDS, P. M. G.; M.Sc. – Dept. of Exp. Anim. Morphol. and Cell Biol., "Zodiac", Agric. Univ., Marijkeweg 40, 6709 PG WAGENINGEN, Netherlands

a Differentiation of head muscles (histochemistry, electron microscopy, autoradiography). (Teleostei)

BARGALLÓ, R.; Dr. – Serv. de Microsc. Electronica, Univ. de Barcelona, Granvia 585, BARCELONA 7, Spain

a Oogenesis, spermatogenesis and fertilisation. (Turbellaria; Myzostomida, Polychaeta; Brachiopoda; Chaetognatha)

BARIGOZZI, C.; D.Sc., Prof. – Ist. di Genet., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy

no work on developmental biology in progress

BARLOW, P. W.; D.Phil. – A.R.C., Letcombe Lab., WANTAGE OX12 9JT, England

a Experimental developmental morphology, especially: regeneration and role of root cap; kinetics of root meristem; cell differentiation; cell organisation and interaction in the apex. (Angiospermae)

BARNES, R. D.; M.D. – Dept. of Embryol. and Foetal Devl., 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 Mechanisms of teratogenesis (in vitro culture of postimplanted embryos). Rattus norvegicus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

c Fate of fetuses grafted in utero with haemopoietic stem cells. (Primates)

BARNI, S.; Dr. – Inst. 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 norvegicus (Rodentia)

b Histochemistry of tetrahydrofolate dehydrogenase in embryonic and adult erythropoiesis. Gallus gallus (Aves), Rattus norvegicus (Rodentia)

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

a Physical and biochemical growth characteristics of the foetal spinal cord. Homo sapiens (Primates)

BART, A.; D.Sc. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B. P. 36, 59650 VILLENEUVE D'ASCQ, 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)

f Hemocytes and epidermis in vitro. Same species as a

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)

BAUMANS, Ms. V.; D.V.M. – Vet. Anat. and Embryol. Inst., State Univ., Bekkerstr. 141, 3572 SG UTRECHT, Netherlands

a Morphology and endocrinology of testicular descent. Canis familiaris (Carnivora)

BAUMGARTEN, H. G.; Dr.med., Prof. – Abt. Neuroanat., Anat. Inst. der Univ., Martinistr. 52, 2 HAMBURG 20, BRD (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., Fac. des Sci., 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 du jeûne prolongé sur les capacités de régénération. Même espèce comme a

c Organogenesis in regeneration. Same species as a

BAUTZ (PORTMANN), Ms. A. M.; D.Sc. – Lab. de Zool., Fac. des Sci., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France

a Mechanism of degeneration of larval cells in abdominal epidermis. Calliphora erythrocephala (Diptera)
b Contacts between larval cells and phagocytes. 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)

BAZIN, F.; M.A. – Lab. de Biol. Anim., U.E.R. Sciences, Univ. de Caen, 14032 CAEN Cedex, France
a Ultrastructure and autoradiography of blastema formation and development; effects of ecdysterone. (Crustacea)

BAZITOV, A. A.; M.Sc. – Vladivostokskij Med. Inst., VLADIVOSTOK 690002, USSR
a Morphology of development: histological sections of embryonic stages. Amphilina japonica, Proteocephalus exiguus (Cestodaria, Cestoda)

BEATTY, R. A.; Ph.D., F.R.S.E. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
a Breeding of genetically tagged strains for use in developmental biology. Oryctolagus cuniculus (Lagomorpha)
b Developmental biology and genetics of gametes. Same species as a, and Mus musculus (Rodentia), Homo sapiens (Primates)
c Aetiology of heteroploidy. Same species as a, and 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 Erythropoièse embryonnaire. Même espèce comme a

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 Effect of trypan blue on development. Rattus spec. (Rodentia), Mustela putorius furo (Carnivora)
b Embryonic nutrition. Same species as a
c 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, BRD (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

BEETSCHEN, J. C.; D.Sc., Prof. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
a Chemical mutagenesis (Urodela) (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. Pleurodeles waltl (Urodela) (with M. FERNANDEZ)
c Experiments on the symmetrization of oocyte and egg. Ambystoma mexicanum (Urodela)

BEETZ, Ms. B. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, BRD (Germany)
a Influence of inorganic ions on mitosis in neuroblasts. Carausius morosus (Phasmida)

BEGUET, B.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Developmental genetics of esterase isoenzymes with reproduction. Caenorhabditis elegans (Nematoda)

BEHNEL, H. J.; Dr.rer.nat. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, BRD (Germany)
a Mechanisms controlling puffing pattern in giant chromosomes of larval salivary glands (wild stock and mutants). Drosophila melanogaster, D. immigrans (Diptera)

BEIER, H. M.; Dr.rer.nat., Dr.med., o.Prof. – Dept. of Anat. and Reprod. Biol., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (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)
d Tissue culture and in vitro culture of embryos, particularly blastocysts for analysis of developmental potential. Same species as c

BEINBRECH, G.; Dr., Prof. – Zool. Inst. der Univ., Arb.gr. Muskelphysiol., Hindenburgplatz 55, 44 MÜNSTER/Westf., BRD (Germany)
a Development of flight muscles: formation of myofibrils and sarcotubular system. Phormia terrae-novae (Diptera), Locusta migratoria (Orthoptera)

BELL, S. C.; 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)

BELLAIRS, A. d'A.; D.Sc., Prof. – Dept. of Anat., S. 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 Cell interactions of embryonic tissues in vitro. Gallus domesticus (Aves) (with G. W. IRELAND and C. D. STERN)
b Cell migration within the embryo. Same species as a (with G. W. IRELAND and C. D. STERN and E. J. SANDERS (Canada))
c Scanning electron microscopy in the embryo. Same species as a
d Freeze-fracture studies of embryos. Same species as a (with A. S. BREATHNACH, St. Mary's Hosp.)
e Development of somites in embryos. Same species as a

BELOUSSOV, L. V.; Dr.biol., Prof. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
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)

BENAZZI, M.; Prof. (Emer.) – Ist. di Zool. e Anat. Comp. dell'Univ., Via A. Volta 4, 56100 PISA, Italy

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 developing central nervous system. Columba livia, Coturnix c. japonica (Aves)
c Reticular formation. Hippocampus guttulatus, Syngnathus acus, Nerophis ophidion (Syngnathidae, Teleostei)

BENSON, P. F.; M.D., Ph.D. – Paediat. Res. Unit, Guy's Hosp. Med. School, Guy's Tower, LONDON SE1 9RT, England
a Prenatal diagnosis of metabolic diseases by cultured amniotic cell enzyme assay. Homo sapiens (Primates)
b Enzyme replacement in lysosomal disease by fibroblast transplant. Same species as a

BENTYN, K.; M.D. – Lab. of Exp. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
a Effects of intra-uterine devices (IUD) on pre- and postimplantation fate of eggs and on amino nitrogen level in uterine fluid. Oryctolagus cuniculus (Lagomorpha)

BEREITER-HAHN, J.; Dr.phil.nat., Prof. – Arb.gr. Kinemat. Zellforsch., Univ., Senckenberganlage 27, 6000 FRANKFURT/M., BRD (Germany)
a Ultrastructure of the development of flame cells in the skin. Hippocampus spec. (Teleostei)
b 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)
c Migration of epidermal sheets from larval skin in culture. Same species as b

BERGERARD, J.; D.Sc., Prof. – Stat. Biol., place Georges-Teissier, 29211 ROSCOFF, France
a Regression and regeneration of genital tract in the seasonal sexual cycle. Littorina saxatilis (Gastropoda)

BERGQVIST, H. †; Ph.D. – Inst. of Zool., Univ. of Göteborg, GÖTEBORG, Sweden

BERKING, S.; Dr. – Fachrichtung Physiol., Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, BRD (Germany)
a Isolation of morphogenetic substances. Hydra spec. and other spp. (Cnidaria)
b Control of pattern formation and cellular differentiation. Same species as a

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

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

BERNOCCHI, Ms. G.; Ph.D., Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
a Effect of maternal protein malnutrition on pre- and postnatal cerebellum (histogenesis), especially cytochemical maturation of Purkinje cells. Rattus norvegicus (Rodentia)
b Histochemistry of placenta after protein malnutrition. Same species as a

BERREUR (BONNENFANT), Ms. J.; D.Sc. – Endocrinol. des Arthropodes, E.R.229, Génét., Bât.E, C.N.R.S., 91190 GIF-sur-YVETTE, France

BERREUR, P.; Prof. – Endocrinol. des Arthropodes, E.R.229, Génét., Bât.E, C.N.R.S., 91190 GIF-sur-YVETTE, France
a Synthesis of macromolecules in imaginal discs. Pieris spec. (Lepidoptera), Calliphora spec. (Diptera)
b Hormonal control of metamorphosis. Same species as a, and Drosophila spec. (Diptera)

BERRY, M.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

BERTINI, Ms. M.; M.D. – 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. – Dept. of Ecol. Zool., Univ. of Umeå, 901 87 UMEÅ, 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 (Urodela)

b Gametogenesis in parthenogenetic and amphigonic animals. Macrobiotus spp., Hypsibius spp., Isohypsibius spp., Diphascon spp. (Tardigrada)

BERTON (PECHEUX), Ms. F.; Dr.3è Cycle – Ctr. de Biol. Appl., Fond. Hersent-Luzarche, Univ. de Tours, 36290 AZAY-LE-FERRON, 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 Biol. Anim. (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)

BEUG, H.; Ph.D. – Max-Planck Inst. für Virusforsch., Abt.III, Spemannstr. 35-III, 74 TÜBINGEN, BRD (Germany)

BEVAN, S. J.; Ph.D. – Dept. of Zool. and Comp. Anat., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England

a Synaptogenesis in vivo and in tissue culture. Various species

BEYNON, A. D. G.; Ph.D. – Dept. of Oral Anat., Dental School, Framlington Place, NEWCASTLE upon Tyne NE2 4BW, England

a Tooth and jaw development. (Rodentia), Felis catus (Carnivora)

BEZEM, J. J.; Ir. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands

a Computer simulation of embryonic development. (with Chr. P. RAVEN)

BIBIKOVA, Ms. A. D. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR

a Action of melanocyte stimulating hormone on eye development. Rattus norvegicus (Rodentia) (with O. G. STROEVA)

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)

BIGGELAAR, J. A. M. v. d.; Ph.D. – Zool. Lab., State Univ., Transitorium III, Postbus 80.058, 3508 TB 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)

b Ultrastructural organisation of the plasma membrane and associated cytoplasmic elements: its role in early development. (Mollusca) (with J. G. BLUEMINK, Hubrecht Lab., N. H. VERDONK and M. R. DOHMEN)

BIJTEL, Ms. J. H.; D.Sc., M.D. – De Boelelaan 275, "Zuidwende", 1082 RC AMSTERDAM, Netherlands

BILINSKI, S.; D.Sc. – Zool. Dept., Jagellonian Univ., ul.Karasia 6, 30-060 KRAKÓW, Poland

a Light and electron microscopy of embryogenesis. (Protura, Insecta)

b Electron microscopy of oogenesis. (Myriapoda; Apterygota)

BILLAT (CARLIER), Ms. C.; D.E.S. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France

BILLETT, F. S.; Ph.D. – Dept. of Biol., The Univ., Bldg.25, SOUTHAMPTON SO9 5NH, England

BILLETT, M. A.; Ph.D. – Dept. of Biochem., Univ. of Nottingham Med. School, Queen's Med. Ctr., NOTTINGHAM NG7 2UH, England

a Chromatin structure, heterogeneity and function in developing tissues, especially during erythropoiesis. Gallus domesticus (Aves)

b Control of myogenesis in vitro, including effects of carcinogens and tumour promotors. Same species as a

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

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

BLÄHSER, S.; Dr.vet. – Zentr. für Anat. und Cytobiol., Justus Liebig Univ., Aulweg 123, 6300 GIESSEN, BRD (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), Mus musculus (Rodentia)

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

BLOM, E.; Dr.med.vet. – State Vet. Serum Lab., Bülowsvej 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.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands

a Ultrastructural organisation of the plasma membrane and associated cytoplasmic elements: its role in early development (transmission-, scanning- and freeze fracture electron microscopy). 1. (Amphibia); 2. (Mollusca) (with N. VERDONK, M. R. DOHMEN and J. v. d. BIGGELAAR, Zool. Lab., State Univ. of Utrecht)

b Electron microscopy of the origin of dorso-ventral polarity in the egg. Xenopus laevis, Discoglossus pictus (Anura) (with G. A. UBBELS)

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, BRD (Germany)

a Myogenesis; immunology of muscular proteins; in vitro translation. Drosophila melanogaster (Diptera)

BOENDER, P.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands

a Biochemistry of spermiogenesis. Drosophila hydei (Diptera)

BOER, G. J.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands

a Interaction with hormones during maturation and adaptation of the nervous system (biochemistry). Rattus norvegicus (Rodentia), Homo sapiens (Primates)

BOER, K.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands

a Interaction with hormones during maturation and adaptation of the nervous system (electrophysiology). Rattus norvegicus (Rodentia), Homo sapiens (Primates)

BOILEDIEU, Ms. D.; Dr.biol.anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France

a Genetics of histocompatibility: in vivo and in vitro incompatibility reactions, ontogeny, molecular basis, genetic determinations and relations. Eisenia foetida (Oligochaeta), (Sipuncula)

BOILLY, B.; D.Sc., Prof. – Lab. de Morphogen. Anim., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France

a Regeneration cells (dedifferentiation, activation, differentiation)

b Factors of regenerative morphogenesis (especially nervous system, tissue contacts)

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, ultrastructure, 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 nucleolini in oocytes. (Mollusca; Echinodermata; Chordata)
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

BONDI, C.; Dr., 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)
c Scanning electron microscopy of the cocoon shell. Dugesia lugubris (Turbellaria)

BONS, J.; D.Sc. – Lab. de Biogeogr. et Ecol. des Vertébr., École Prat. des Hautes Études, place E. Bataillon, 34060 MONTPELLIER, France

BONTEKOE, Ms. E. H. M.; Drs. – Dept. of Obstet. and Gynecol., Univ. of Amsterdam, Wilhelmina Gasthuis, 1e Helmerstr. 104, 1054 EG AMSTERDAM, Netherlands

BOON (NIERMEYER), Ms. E. K.; M.Sc. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands
a Regulation of the cell cycle during cleavage: 1. protein synthesis (radioactive precursors and specific inhibitors); 2. comparative study on the relation between protein and DNA synthesis. Lymnaea stagnalis, Patella vulgata (Gastropoda), Psammechinus miliaris, Asterias spec. (Echinodermata)
b Relation between the regulation of the specific division pattern and differentiation of some larval organs. Patella vulgata, Lymnaea stagnalis (Gastropoda)

BOONSTRA, J.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Regulation of the cell cycle and its significance for development and differentiation: the role of ion metabolism. Neuroblastoma cells, Mus musculus (Rodentia) (with S. W. de LAAT, P. T. v. d. SAAG, W. H. MOOLENAAR, C. L. MUMMERY, E. J. J. van ZOELEN and S. A. NELEMANS)

BOOTH, W. D. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Sexual behaviour, hormone levels and fertility. Oryctolagus cuniculus (Lagomorpha)
b Control of implantation and delayed implantation. Meriones unguiculatus (Rodentia), Mustela vison (Carnivora)

BOPP, M.; Dr.rer.nat., Prof. – Bot. Inst. der Univ., Im Neuenheimer Feld 360, 6900 HEIDELBERG, BRD (Germany)
a Development; morphogenesis of protonema. Funaria hygrometrica (Musci)
b Shoot growth. Sinapis spec. (Cruciferae), Pisum sativum (Papilionaceae)
c Tissue culture; growth and differentiation. Nicotiana tabacum (Solanaceae), Anagallis arvensis (Primulaceae)

BORDES, Ms. N.; D.Sc. – Lab. de Zool. Exp., Univ. Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Embryonic ecdysteroids and cuticular cycles. Calliphora spec. (Diptera) (with J.-P. LOUVET, M. CAVALLIN and B. FOURNIER)

BORGHESE, E.; M.D., Dr.Biol., Prof. – Ist. di Anat. Umana Norm., Univ. di Napoli, Via Sergio Pansini 5, 80131 NAPOLI, Italy

BOSCO, L.; Dr.biol. – Ist. di Anat. Comp., Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
a Relationship between eye factors and lens-forming transformations in the cornea and pericorneal epidermis of larvae. Xenopus laevis (Anura)

BOSQUET, G.; Dr.spéc. – Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Starvation and refeeding effects on metabolism and protein synthesis in larvae. Bombyx mori, Philosamia cynthia (Lepidoptera)

BOSSY, J. G. M.; M.D., Prof. – Dept. of Anat., Univ. of Montpellier, Section of Nîmes, av.Kennedy, 30000 NIMES, 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.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Analysis of dorso-ventral and cranio-caudal polarity in mesoderm induction. Bombina orientalis (Anura), Ambystoma mexicanum (Urodela) (with P. D. NIEUWKOOP and K. HARA)
b Mechanism of mesoderm induction. Ambystoma mexicanum (Urodela)

BOTH, N. J. de; Ph.D. – Pathol. Anat. I, Erasmus Univ., Dr. Molenwaterplein 40, Postbus 1738, 3000 DR ROTTERDAM, Netherlands
a Influence of Rauscher leukemia virus on blood formation. Mus musculus (Rodentia)
b Differentiation of leukemic cells in vitro. Same species as a

BOTTKE, W.; Dr.rer.nat. – Lehrst. für Allgem. Zool., Zool. Inst. der Univ., Badestr. 9, 4400 MÜNSTER, BRD (Germany)
a Structure and function of yolk ferritins. (Gastropoda)
b Oogenesis, especially origin of yolk and follicle cell-oocyte interactions (electron microscopy, autoradiography, electrophoresis). Planorbarius corneus, Lymnaea stagnalis, Bithynia tentaculata, Valvata piscinalis (Gastropoda)
c Chromosomal structure during endomitosis, mitosis and meiosis in the hermaphroditic gland (electron microscopy, autoradiography, cytophotometry). Planorbarius corneus, Lymnaea stagnalis (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)

b Influence of calcium on aggregation. Same species as a
c Chemistry of the cell wall in aggregated organs and vegetative mycelium. Same species as a

BOUC-LASSALLE, Ms. A. M.; Dr.biol.anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Phylogenesis of the immune response. Eisenia foetida, Lumbricus spec. (Oligochaeta; other Invertebrata)

BOUCAUT, J. C.; D.Sc. – Lab. de Biol. du Dévl., Univ. Paris V (René Descartes), 45 Rue des Sts.Pères, 75006 PARIS, France
a Expression of mosaicism in allophenic chimaeras. Pleurodeles waltl, Ambystoma mexicanum (Urodela)
b Cellular interactions in development

BOURSNELL, J. C. † Dr. – A.R.C. Inst. of Anim. Physiol., 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. (Demospongea, Porifera)

BOUTHIER, A. – Lab. de Zool., École Norm. Supér., 46 rue d'Ulm, 75230 PARIS Cedex 05, France
a Ommochrome metabolism during larval development and in adults of normal and "albino" mutant strains. Locusta migratoria (Orthoptera)
b Hormonal control of pigmentation. Same species as a

BOUVET, J. L.; Dr. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, 38041 GRENOBLE, France
a Development and regulation of cutaneous pattern of innervation. Gallus domesticus (Aves)
b Destruction of the egg shell by the peridermal cells which envelope the yolk mass (transmission and scanning electron microscopy). Salmo trutta fario (Teleostei)

BOWER, D. J. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, L. ERRINGTON, N. R. WAINWRIGHT, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))

BOWNES, M.; D.Phil. – Dept. of Molec. Biol., Univ. of Edinburgh, King's Bldgs., Mayfield Rd., EDINGBURGH, Scotland, UK
a Experiments on the mechanism of regeneration in imaginal discs. Drosophila melanogaster (Diptera)
b Genetic and developmental analysis of homoeotic mutants. Same species as a
c Genetic control of vitellogenesis. Same species as a

BRACHET, J. L. A.; M.D., D.Sc., Prof. (Emer.) – 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 Role of ions and SH groups in the induction of maturation and in differentiation without cleavage. Chaetopterus spec. (Polychaeta)
c Role of polyamines in egg development (Echinoidea)
d Microtubule assembly in full-grown and vitellogenic oocytes. Same species as a
e Effects of valinomycin on cleavage and ciliary movement in embryos and larvae. Paracentrotus lividus (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)

BRADBURY, J. M.; B.Sc. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
a Gene expression in developmental mutants (measurement of developmental master enzymes, etc.). Dictylostelium discoideum (Acrasiales)

BRADLEY, T. R.; B.Sc. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G12 8QQ, England
a Morphogenetic behaviour of mesenchymal and epithelial embryonic cells and interactions in vitro. Gallus gallus (Aves)

BRAGT, J. van; Dr., Ir. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O. Box 30, 6700 AA WAGENINGEN, Netherlands
a Endogenous cytokinins and regeneration of sprouts on leaf cuttings. Ornamental spp. (Angiospermae)
b Endogenous gibberellins and cytokinins, and effects of gibberellins, cytokinins, auxins and ethylene. Tulipa spec. (Liliaceae)

BRAHMA, S. K.; D.Phil., Ph.D. – Dept. of Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3a, 3512 BK 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 plathyrhynchos (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, Urodela) (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

BRÄNDLE, K. A.; Dr.rer.nat., Prof. – Arb.gr. Neuro- und Rezeptorphysiol., Fachber. Biol. (Zool.) der Univ., Siesmayerstr. 70, 6000 FRANKFURT, BRD (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. (Urodela)

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 (Urodela), 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, 2000 HAMBURG 50, BRD (Germany)

a The influence of temperature, oxygen pressure and water flow on eggs and larvae. Esox lucius, Coregonus spp. (Teleostei)

BREATHNACH, A. S.; M.D., Prof. – Dept. of Anat., St. Mary's Hosp. Med. School, Paddington, LONDON W2 1PG, England

a Freeze-fracture studies of embryos. Gallus domesticus (Aves) (with M. R. BELLAIRS, Univ. Coll.)

BRENNER, S.; D.Phil. – Lab. of Molec. Biol., Med. Res. Counc., Hills Rd., CAMBRIDGE CB2 2QH, England

a Developmental genetics. Caenorhabditis elegans (Nematoda)

BREUGEL, F. M. A.van; Dr. – Genet. Lab., State Univ., Kaiserstr. 63, 2311 GP 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

a Correlation of quantitative ultrastructural changes (stereological analysis) with physiological events in developing and germinating seeds. Vicia faba, Phaseolus vulgaris (Papilionaceae)

BRICHOVÁ, Ms. H.; M.D. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia

a Differentiation and reactibility of the neuroglia cells

BRIDE, Ms. J.; D.Sc. – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France

a Différentiation et fonctionnement de l'appareil génital. Helix aspersa (Gastropoda)

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 coeur. Rana temporaria, Xenopus laevis (Anura) (avec L. GOMOT)

BRIEGLEB, W.; Dr.rer.nat. – Inst. für Flugmedizin der D.F.V.L.R., Godesberger Allee 70, 5300 BONN 2, BRD (Germany)

a Einfluss von Licht und hoher Temperatur auf die Ontogenese einer neotenen Art aus einem Höhlenbiotop. Proteus anguinus (Urodela)

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)

BRODIE, J. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK

a In vitro analysis of transdifferentiation of neural and pigmented retina. Gallus domesticus (Aves) (with R. M. CLAYTON and D. I. DE POMERAI)

BRØNDSTED, H. V.; Dr.Phil., Prof. (Emer.) – Stockholmsgade 23, 2100 COPENHAGEN Ø, Denmark

BROOKMAN, J. J.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England

a Cell interactions and surface antigens involved in pattern formation. Dictyostelium discoideum (Acrasiales)

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 sipylus (Phasmida) (with A. BART)

BROWN, C. R. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the maintenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distribution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)

BRUEL, Ms. M. Th.; Dr.3e cycle – Lab. de Biol. Anim., Univ. de Clermont II, 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 (Urodela)

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, 1095 KJ AMSTERDAM, Netherlands
a Development and correctibility of behaviour. Rattus norvegicus (Rodentia)
b Developmental aspects of morphology and function of the prefrontal cortex. Same species as a
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
a Developmental genetics of RNA and proteins. Caenorhabditis elegans (Nematoda)
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
BUEHR, M. L.; Ph.D. – MRC Mammalian Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England
BUGGE, J.; Ph.D. – Dept. of Anat., Royal Dent. Coll., Vennelyst 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., USSR Acad. of Sci., Gubkin St. 3, 117809 GSP-1, MOSCOW B–333, USSR
a Gene expression in experimental chimaeras. Mus musculus (Rodentia)
BUIJS, R. M.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Interaction with hormones during maturation and adaptation of the nervous system (peptide synapses). Rattus norvegicus (Rodentia), Homo sapiens (Primates)
BUKULYA, B. – 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. 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, 38041 GRENOBLE, France
a Ecdysteroids and differentiation during embryonic, larval and imaginal development. Blaberus craniifer (Blattodea)
b Cell determination and genetic control of morphogenesis in larval appendages. Same species as a
c Immunochemistry of the morphogenesis of the larval appendage. 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, 38041 GRENOBLE, France
a Role of ecdysteroids during imaginal and embryonic development. Blaberus craniifer (Blattodea)
b Relationships between molting hormone, regeneration and differentiation. Same species as a
c Immunochemistry of the morphogenesis of the larval appendage. 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, USSR
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. – Lehrst. für Allgem. Zool., Zool. Inst. der Univ., Badestr. 9, 44 MÜNSTER/Westf., BRD (Germany)
a RNA synthesis in early development: analysis of nucleotide-pools, rate of RNA synthesis, characterization of RNA, start of rRNA synthesis. Bruchidius obtectus (Coleoptera)
BURAKOVA, Ms. T. A. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Non-histone proteins in the egg: injection, distribution and role in regulation of gene activity. Misgurnus fossilis (Teleostei)
BURGER, Ms. E. H.; Dr. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 2333 AA LEIDEN, Netherlands
a Ultrastructural effect of parathyroid extract on maturing embryonic cartilage and cartilage calcification in tissue culture. Mus musculus (Rodentia)
b Resorption of cartilage in the formation of a marrow cavity in fetal long bones. 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 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, UK
a Role of sex chromosomes in germ cell differentiation. Mus musculus (Rodentia)
b Pregnancy loss of XO and OY embryos. Same species as a
c Gonadal differentiation in vitro. 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. (Ascidiacea)
b Organogenesis. Botryllus schlosseri (Ascidiacea)
c Tissue involution. (Ascidiacea)

BÜRKI, K.; Dr.sci.nat. – Lab. of Cell Differ., Dept. of Biol., Univ. of Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Cell lineage in early embryos. Mus musculus (Rodentia)
b Internal order of the nucleus in relation to cell differentiation. Mus musculus, Phodopus sungorus (Rodentia)

BUSCH, L. C.; Dr.rer.nat. – Dept. of Anat. and Reprod. Biol., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (Germany)
a Morphology of preimplantational tissues of blastocysts and maternal reproductive organs and their endocrinological control. Oryctolagus cuniculus (Lagomorpha)
b Tissue culture of developing endometrial cells. Same species as a

BUTLER, S. R.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

BUZNIKOV, G. A.; Dr.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
a 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, N. A. TEPLITZ and T. M. TURPAEV)
b Role of serotonin in intercellular connections during cleavage divisions. Scaphechinus mirabilis (Echinoidea) (with Yu. B. SCHMUCKLER)

BYCZKOWSKA (SMYK), Ms. W.; Dr. – Dept. of Comp. Anat., Jagellonian Univ., ul.M. Karasia 6, 30-060 KRAKÓW, Poland
a Cell size in development. Rana temporaria, R. arvalis (Anura)

BYSKOV, Ms. A. G.; Ph.D. – Finsen Lab., Finsen Inst., 49 Strandboulevarden, 2100 COPENHAGEN Ø, Denmark
a Development and function of gonads; regulation of meiosis and cell dynamics of gonadal cell populations (electron microscopy, flow cytometry, autoradiography). (Rodentia; Primates)
b Sex differentiation in vivo and in vitro. Same species as a

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

CALABRO, Ms. C.; Dr. – Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy
a Cytochemistry of yolk globules in the oocyte. Pisania maculosa, Murex trunculus (Gastropoda)

CALASTRINI, Ms. C. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy
a Epithelio-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. Ctr., Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
a Early development. Gallus domesticus, Coturnix coturnix (Aves)
b 3H-uridine, 3H-thymidine, and 1-leucine-3H incorporation in female germ cells. Coturnix c. japonica (Aves)
c Origin of ovarian somatic cells. Same species as a

CALMAN, Ms. F. – 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 Role of MHC (major histocompatibility complex) antigens in interactions between thymus epithelium and lymphoid precursor cells (transfilter culture, transplantation). Mus musculus (Rodentia)

CALVEZ, B.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Feeding effects on protein synthesis in larvae. Bombyx mori, Philosamia cynthia (Lepidoptera)

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 mésonéphros. Rana spec., Alytes spec., Discoglossus spec., Xenopus spec. (Anura)

b Ultrastructure du pronéphros et du mésonéphros. (Anura)
c Involution ou transformation de l'appareil excréteur 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 Entomol., Swiss Fed. Inst. of Technol., ETH-Zentrum, Clausiusstr. 21, 8092 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, Heteropeza pygmaea (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
a Contractile and cytoskeletal proteins in gametes (immunofluorescence). Discoglossus pictus (Anura), Meleagris gallopavo (Aves), Rattus rattus (Rodentia)

CAMPANTICO, E.; Dr. – Inst. of Histol. and Embryol., Univ. of Torino, Via Giolitti 34, 10123 TORINO, Italy
no work on developmental biology in progress

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, UK
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 (Edinburgh), and D. S. McDEVITT (Philadelphia))

CAMPELO BARCIA, Ms. E.; M.D. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain

CAMPOS-ORTEGA, J. A.; Dr., Prof. – Inst. für Biol. III der Univ., Schänzlestr. 9-11, 7800 FREIBURG, BRD (Germany)
a Morphogenesis of compound eye and central nervous system (clonal analysis, histology). Drosophila melanogaster (Diptera)

CANICATTI, C.; Dr.biol. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Immunobiology: natural hemagglutinins. Ciona intestinalis, Ascidia malaca, Phallusia mamillata (Ascidiacea), Holothuria polii (Holothuroidea)

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 TIMIŞOARA, Rumania
a Cytogenetics. Homo sapiens (Primates)

CAPDEVILA, 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)
b Gene regulation in developmental pathways. Same species as a

CAPESIUS (ESSIGMAN), Ms. I.; Dr. – Bot. Inst. der Univ., Im Neuenheimer Feld 360, 6900 HEIDELBERG, BRD (Germany)
a Influence of GA3 (gibberellic acid), FdUrd (fluorodeoxyuridine) or both on growth and DNA synthesis in seedlings and protocorms; possibility of over- or underreplication of DNA during development. Pisum sativum (Papilionaceae), Sinapis alba (Cruciferae), Cymbidium spec. (Orchidaceae)

CAPPANNINI, M. – Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy

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 waltl (Urodela)
b Induction et organogenèse de la bouche et des dents in vivo et in vitro. Même espèce comme a

CARAVATTI, M.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Synthesis and degradation of muscle proteins in myogenic cell cultures. Gallus domesticus (Aves)

CARDELLINI, P.; Dr.biol. – 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 Effect of some drugs on early embryonic development (Amphibia)
d State of dorso-ventral polarisation in early cleavage stages. Ambystoma mexicanum (Urodela)

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

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

CARUELLE, J. P. – Lab. de Cytophysiol. des Arthropodes, U.E.R. de Biol.-Zool., Univ. Paris VI (P.et M. Curie), 105 Bd. Raspail, 75006 PARIS, France
a In vitro effects of ecdysteroids and juvenile hormones on development of larval epidermis (cellular differentiation, cellular alterations, cuticular deposition, ultrastructure). Schistocerca gregaria, Locusta migratoria (Orthoptera)

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 Écol.), Univ. des Sci. et Techn. du Languedoc, place E. Bataillon, 34060 MONTPELLIER, France

CASTEL, 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)

CASU, S.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
a Genome mutations in relation to modalities of reproduction. Dugesia gonocephala s.l. (Turbellaria)

CAVALLIN (THOMAS), Ms. M.; D.Sc. – Lab. de Zool. Exp., Univ. Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Experiments on segregation and migration of germ cells. Carausius spec., Clitumnus spec. (Phasmida)
b Embryonic ecdysteroids and cuticular cycles. Same species as a, and Calliphora spec. (Diptera), (Astacidae, Decapoda, Crustacea) (with J. P. LOUVET, N. BORDES, B. FOURNIER and N. DAGUERRE de HUREAUX)
c Embryonic neurosecretions. Same species as a (with J. SUCH)

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 polypoid animals. (Urodela)

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. – Capri Ctr. for Cell Biol. and Nat. Sci., Via Follicara 4, 80071 ANACAPRI (Napoli), 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., Prof. – Dept. of Dermatol., Univ. of Sassari, Viale Mancini, 07100 SASSARI, Italy
a Development of the hair. Homo sapiens (Primates)

CHALFIE, M.; Ph.D. – M.R.C. Lab. of Molec. Biol., Hills Rd., CAMBRIDGE CB2 2QH, England
a Isolation and characterization of cell lineage mutants, particular mutants with altered patterns of neuronal development. Caenorhabditis elegans (Nematoda)

CHALLIER, J. 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 Placental transfer in vitro of anxiolytics, beta-mimetics, hexoses, amino acids and water soluble substances of different molecular weight (perfusion in vitro). Homo sapiens (Primates)

CHALLONER WHITEN, S.; Ph.D. – Dept. of Anat. and Exp. Pathol., Univ. of St. Andrews, Bute Med. Bldgs., ST. ANDREWS KY16 9TS, Fife, Scotland, UK
a Development of female germ cells, especially initiation of meiosis and effects of the rete ovarii. Rattus norvegicus (Rodentia)

CHALOUPKA, Z.; MUDr., CSc. – Inst. of Pathophysiol., Charles Univ., Lidická 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 Dévél., C.H.U. de Bobigny, 74 rue M. Cachin, 93000 BOBIGNY, France
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 Corrélations hypothalamo-hypophysaires. Gambusia spec., Anguilla spec., Mugil spec. (Teleostei)
CHANDEBOIS, Ms. R.; Dr., Prof. – Lab. de Morphogénét. Anim., Univ. de Provence – Centre St. Charles, place Victor Hugo, 13331 MARSEILLE-Cedex 3, France
a Programming of regeneration. Dugesia subtentaculata, D. gonocephala (Turbellaria)
b Disease related to cancer; determinism and effect on regeneration. Same species as a
CHANTURISHVILI, P. S.; Dr.Biol., Prof. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, USSR
a Comparative study of the development of adenohypophysis and gonads in the embryo; correlated changes in the embryo and in the egg-white. various spp. (Passeres, Aves)
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; Urodela)
b Effect of nervous system on angiogenesis. (Urodela; Mammalia)
CHAPRON, Ms. J.; Ing. – Centre de Morphol. Expér., Inst. de Biol. Anim., C.N.R.S., Av. des Facultés, 33405 TALENCE Cedex, France
a Action of adenylate nucleotides in angiogenesis. Mus musculus (Rodentia)
CHARBONNÉ-GOETT, Ms. F. – Lab. d'Histol.-Embryol. Cytogénét., 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, 1092 AD AMSTERDAM-O., Netherlands
CHARNIAUX-COTTON, Ms. H.; D.Sc., Prof. – Lab. Sex. et Reprod. des Invertebr., Univ. Paris VI (P.et M. Curie), Bât. A, 4 Place Jussieu, 75230 PARIS Cedex 05, France
a Vitellogénine: isolement et purification, contrôle endocrine et lieu de synthèse, métabolisme dans l'ovocyte. Orchestia gammarellus (Amphipoda, Crustacea) (with Y. CROISILLE, Nogent)
CHÂTEAUREYNAUD-DUPRAT, Ms. P.; D.Sc. – Centre de Morphol. Expér., Inst. de Biol. Anim., C.N.R.S., Av. des Facultés, 33405 TALENCE, France
a Immune reactions against embryos in pregnant females. Salamandra salamandra (Urodela), Rattus spec. (Rodentia), Homo sapiens (Primates)
b Phylogenesis of the immune response. Eisenia foetida, Lumbricus spec. (Oligochaeta; other Invertebrata)
CHAUVIN, G. R.; Dr.3e 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)
CHAUVIN, T. – Inst. de Biol. Anim., Dépt. d'Embryol. et Tératol. Exper., Fac. des Sci., Univ. de Fribourg, 1700 FRIBOURG, Switzerland
a Teratology of the nervous system. Gallus gallus (Aves)
CHECIU, I.; Biol. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania
a Dynamics of cyclophosphamide action. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)
b Detection of necrosis and macrophage reaction with vital fluorochrome. Same species as a
c Teratogenesis. Homo sapiens (Primates)
CHECIU, Ms. M.; Biol. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania
a Experimental teratology; transfer and culture of embryos. Mus musculus, Rattus norvegicus (Rodentia)
CHEN, P. S.; Dr.phil., Prof. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
a Paragonial substance, amino acids, peptides, mRNA, hnRNA. Drosophila melanogaster, D. spec. (Diptera)
CHEVALLIER, A. D.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53 X, 38041 GRENOBLE Cedex, France
a Development of limb musculature from somitic and somatopleural mesoderm
b Development of limb innervation in relation to myogenesis
CHEVREAU, J. P.; Dr.Méd., Prof. – Dépt. d'Histol.-Embryol., Univ. Paris XII (Val-de-Marne), 6 Rue du Gén. Sarrail, 94000 CRÉTEIL, France
CHIBON, P.; D.Sc., Prof. – Lab. de Zool. et Biol. Anim., Univ. Scient. et Méd. de Grenoble, B.P. 53 X, 38041 GRENOBLE Cedex, France
a Nuclear labelling of embryonic cells (autoradiography). Pleurodeles waltl, Triturus alpestris (Urodela)
b Origin and differentiation of teeth. Rana spec., Bufo spec. (Anura), Pleurodeles waltl (Urodela)
c Cellular proliferation in the embryo: kinetics and differentiation. Pleurodeles waltl (Urodela)
d Automatic cell recognition (computerized cytophotometry)

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, USSR
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 R. SEMBA, Japan et A. DOLLANDER)
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 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. – Arb.gr. Exp. Embryol., Anat. Inst., Ruhr Univ., Postfach 102148, 4630 BOCHUM 1, BRD (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
CHRISTEN, R. – Stat. Marine de Villefranche sur Mer, Univ. Paris VI, 06230 VILLEFRANCHE-sur Mer, France
a Fertilization. Paracentrotus lividus (Echinoidea)
CHRISTIE, W. B. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, Huntingdon Rd. 307, CAMBRIDGE CB3 0JQ, England
a In vitro maturation and in vivo and in vitro fertilization of oocytes; culture of embryos and preservation by deep freezing; development of a non-surgical method for recovery of embryos and the investigation of factors affecting the survival of embryos after non-surgical transfer; factors affecting twinning by egg transfer. Bos taurus (Artiodactyla)
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)
CIGADA LEONARDI, Ms. M.; Ph.D., Prof. – Ist. di Zool., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy
a RNA action in induction and differentiation of somites. Gallus domesticus (Aves)
ČIHAK, R.; MUDr., D.Sc., Prof. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 00 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)
CIVININI, A.; Dr.biol. – Ist. di Zool. "F. Raffaele", Viale dell'Università 32, 00161 ROMA, Italy
a Ultrastructure of gonad morphogenesis in normal and hypophysectomized embryos, especially interstitial tissue. Gallus domesticus (Aves)
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; Dipnoi; Amphibia; Aves; Mammalia)
CLARET, J. – Endocrinol. des Arthropodes, E.R.229, Génét., Bât.E, C.N.R.S., 91190 GIF-sur-YVETTE, France
a Endocrinology of metamorphosis. Pieris brassicae (Lepidoptera)
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 Chimiotératogenèse. 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, UK
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with D. J. BOWER, L. ERRINGTON, N. R. WAINWRIGHT, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))
b Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and

mutants. Same species as a, and Mus musculus (Rodentia) (with J. C. CAMPBELL (Edinburgh) and D. S. McDEVITT (Philadelphia))

c Ultrastructure, immunology, and cell properties of lenses with normal and genetically modified cell membranes. Same species as b (with D. I. DE POMERAI (Nottingham))

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. I. DE POMERAI)

f In vitro analysis of transdifferentiation of neural and pigmented retina. Same species as a (with D. I. DE POMERAI and J. BRODIE)

g In vitro analysis of teratogens (with D. I. DE POMERAI and C. PATEK)

CLEGG, E. J.; M.D., Ph.D., Prof. – Dept. of Anat., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, UK

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, BRD (Germany)

a Light and scanning electron microscopy of the teeth in the upper jaw and the palate of larval, neotene, and metamorphosed animals. Necturus maculosus, Triturus vulgaris, Hynobius keyserlingii, H. nebulosus, Batrachuperus mustersi, Andrias japonicus, A. davidianus (Urodela)

b Development of the vomerine bar and significance of the ramus palatinus to its development during metamorphosis. Salamandra salamandra (Urodela)

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 (Urodela)

b Development of the immune response and role of thymus. Xenopus laevis (Anura)

c Control of differentiation in organ cultures. Same species as b, and Amphiuma means (Urodela)

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 36, Spain

a Embryology of caecum and vermiform 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 Determination of neurotransmitter metabolism in autonomic neurons; noradrenergic and cholinergic phenotypic expression in neural crest derivatives. Gallus gallus, Coturnix c. japonica (Aves), Mus musculus (Rodentia)

COCK, A. G.; Ph.D. – Dept. of Biol., Univ., Med. and Biol. Sci. Bldg., SOUTHAMPTON SO9 3TU, England

a Developmental genetics of body proportions (no current experimental work)

COCK, A. W. A. M. de; Drs. – Sect. Molec. Developm. Biol., Dept. of Bot., 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

c Nutrient requirements of embryos undergoing organogenesis. 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

COHEN, Jack; Ph.D. – Dept. of Zool. and Comp. Physiol., Univ. of Birmingham, P.O.Box 363, BIRMINGHAM B15 2TT, England

COHEN, J.; M.Sc. – Dept. of Endocrinol., Growth, and Reprod., Erasmus Univ., P.O.B. 1738, 3000 DR ROTTERDAM, Netherlands

a In vitro interaction between hamster eggs and human spermatozoa, and its possible use as a fertilisation assay of human spermatozoa. Mesocricetus auratus (Rodentia), Homo sapiens (Primates)

b Developmental differences between gynogenetic, parthenogenetic and in vitro fertilised eggs. Mus musculus (Rodentia)

COLARD, C. – Lab. de Zool. et Embryol., Univ. de Besançon, place Maréchal Leclerc, 25030 BESANÇON Cedex, France

a Organogenèse de la glande mammaire (culture in vitro). Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha) (avec L. GOMOT et A. F. LUCARZ-BIÉTRY)

COLENBRANDER, B.; D.V.M. – Vet. Anat. and Embryol. Inst., State Univ., Bekkerstraat 141, 3572 SG UTRECHT, Netherlands

a Endocrinology of sexual differentiation. Sus scrofa domesticus (Artiodactyla)

b Development of accessory sex glands in freemartins and normal animals. Same species as a

COLLENOT, A.; Dr.Vét., Dr.Sci., Prof. – Lab. d'Embryol. Exp., Centre de Rech. du C.N.R.S., 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 waltl (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, BRD (Germany)
a Isolation and characterization of pigment granules from compound eyes. Ephestia kühniella (Lepidoptera)
b Tryptophan metabolism during development. Same species as a

COLOMBELLI, Ms. B. E.; Ph.D. – Stat. de Zool. Exp., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Haploid and diploid gynogenesis and sex determination. Xenopus spec. (Anura)
b Research on nucleolar organizer; search for nucleolar mutants. Same species as a
c rRNA regulation in hybrids. Same species as a

COLOMBERA, D. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
a Comparative oogenesis and spermatogenesis. Marine species (Deuterostomata)

COLOMBO, G.; Dr.Biol., Prof. – Ist. di Zool., Univ. di Ferrara, Via L. Borsari 46, 44100 FERRARA, Italy

COLOMBO, L.; Dr.biol. – Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
a Possible cooperational 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 jozo (Teleostei)
c Role of progesterone and human chorionic gonadotropin in the induction of oocyte maturation in vitro. Rana esculenta, R. dalmatina (Anura)

COMOGLIO, P. M.; M.D., Assoc.Prof. – 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
a Structure, ultrastructure and cytochemistry of growing oocytes. Lythognathus mormyrus (Teleostei)

COOTE, J. G.; Ph.D. – Microbiol. Dept., Univ. of Glasgow, Garscube Estate, BEARSDEN Glasgow G61 1QH, Scotland, UK
a Metabolism and genetics of factors influencing the transition from vegetative growth to fruiting body formation; regulatory mechanisms underlying the sequence of events during differentiation. Physarum polycephalum (Myxomycetes)

CORNEC, J. P.; Dr.spéc. – Lab. de Morphogen. Exp. et Caryol., Univ. de Provence – Centre St. Charles, Place Victor Hugo, 13331 MARSEILLE Cedex 3, France
a Les facteurs qui inhibent la régénération chez les adultes; pouvoir régénérateur des jeunes. (Hirudinea)

CORNER, M. A.; Ph.D. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Role of neural function in early development of the central nervous system in vivo and in vitro (electrophysiology and neurohistology). Rattus norvegicus (Rodentia)
b Structural basis of spontaneous neural activity in early development. Same species as a

CORREA, Ms. M. C.; Lic.Sci.biol. – Inst. de Pharmacol., Unité de Biol. du Dévl., Univ. de Lausanne, Rue du Bugnon 21, 1011 LAUSANNE, Switzerland
a Changes during development and ageing in the chromatin organisation of liver, kidney and brain. Mus musculus (Rodentia) (with S. P. MODAK)
b Changes during development and ageing in the genome integrity of the cerebral cortex. Same species as a (with S. P. MODAK and G. LEUBA)

COULOMB (GAY), Ms. R.; Lic.ès Sci. – Lab. de Morphogen. Exp. et Caryol., Univ. de Provence – Centre St.Charles, Place Victor Hugo, 13331 MARSEILLE Cedex 3, France
a Déterminisme des hétéromorphoses. (Oligochaeta)

COULON, Ms. J. – Lab. d'Histol. et Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 rte Léon Lachamp, 13288 MARSEILLE Cedex 2, France
a Role of biogenic amines and cyclic nucleotides in regeneration (biochemistry; cytochemistry). Owenia fusiformis (Polychaeta)

COURTOIS, Y.; D.Sc.Méd. – Unité de Gerontol., INSERM, Rue Wilhelm, PARIS 16e, France
a Unscheduled DNA synthesis in UV-irradiated differentiating lens cells. Gallus gallus (Aves) (with S. P. MODAK and J. TRETON)

CRĂCIUN, Ms. O.; L.Sc. – Chaire de Biol.-Histol., Inst. de Méd. et Pharm., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania
a Corrélation entre le foie en régénération et autres organes (surrénale, testicule). Rattus spec. (Rodentia)

CRAN, D. G. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms

controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

CRIPPA, M.; M.D., Prof. – Lab. d'Embryol. Molec., Dépt. de Biol. Anim., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE BOUGERIES (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)

CROCHARD, C.; Dr.Spéc. – U.E.R. d'Ecol., 1 rue des Récollets, 57000 METZ, France

a Effects of heavy metals on sexual maturation and development (histopathology). Leucaspius delineatus (Cyprinidae, Teleostei)

b Effects of heavy metals on fecundity and embryonic development. Daphnia magna (Cladocera, Crustacea)

c Teratogenetic effects of juvenile hormone analogues. Gryllidae (Orthoptera) and other spp. (Insecta)

CROES, A. F.; Dr. – Sect. Molec. Developm. Biol., Dept. of Bot., 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 Organogenesis of the kidney. Same species as a (with M. GUMPEL-PINOT)

c Involution of the mesonephros and differentiation of the epididymis (immunohistology). Same species as a (with M. GUMPEL-PINOT and J. M. GASC)

d Purification and characterization of a female-specific (vitellogenic) 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. 370, 1445 BUDAPEST, Hungary

a Experimental and physiological embryology; teratogenesis. Rattus rattus (Rodentia)

b Development of hormone receptors. (Protozoa), Dugesia lugubris (Turbellaria), Rattus rattus (Rodentia)

CSILLIK, B.; M.D., Prof. – Dept. of Anat., Univ. Med. School, P.O.Box 512, 6701 SZEGED, Hungary

a Developmental histochemistry and electron microscopy of the autonomic ground plexus. Rattus rattus (Rodentia) (with E. KNYIHÁR, M. GAJÓ and G. KÁLMÁN)

b Development of neurons and synapses in embryonic spinal cord. Macaca mulatta (Primates) (with E. KNYIHÁR)

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)

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 Organogenèse 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'amiboïdisme des cellules germinales. Même espèce comme a

CURTIS, A. S. G.; Ph.D., Prof. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G12 8QQ, Scotland, UK

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)

e Histocompatibility systems and cell positioning. (Rodentia)

CURTO STOMTERO, M. – Inst. of Biochem., Dept. of Med. & Surg., Via Michelangelo 27, 10126 TORINO, Italy

a Carbohydrate metabolism in the lung of fetus, neonate and adult. Rattus norvegicus (Rodentia)

CUSIMANO (CAROLLO), Ms. T.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Hybrid fertilization after aging of eggs. Ascidia malaca, Ascidiella aspersa (Ascidiacea)
b 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
a Embryology and reproduction. Rubus spec. (Rosaceae)
b Embryology. Hydrilla verticillata (Hydrocharitaceae)
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
CZARNOWSKA, Ms. E.; M.Sc. – Dept. of Histol. and Embryol., Warsaw Agric. Univ., ul.Nowoursynowska 166, 02-766 WARSZAWA, Poland
a Histochemistry and ultrastructure of placenta development. Sus scrofa domesticus (Artiodactyla)
CZIHAK, G.; D.Phil., Prof. – Lehrkanzel für Genet. und Entw.biol., 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.; Ph.D. – 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)
DABAGIAN (ERAMICHEVA), Ms. N. V.; Cand.biol. – Chain or Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
a Development of the ciliary body (scanning and transmission electron microscopy). Rana temporaria (Anura)
b Nucleo-cytoplasmic interactions studied by transplantation of embryonic and somatic cell nuclei into the egg. Misgurnus fossilis (Teleostei)
DABROWSKA, Ms. R.; Ph.D. – Nencki Inst. of Exp. Biol., 3 Pasteur St., 02-093, WARSZAWA, Poland
a Functional and physicochemical characterization of proteins of muscle contractile apparatus during development. (Mammalia)
DAGUERRE de HUREAUX (PIGEAULT), Ms. N.; D.Sc. – Lab. de Zool. Exp., Univ. Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Embryonic development of the cephalic neuroendocrine system. (Astacidae, Decapoda, Crustacea)
b Embryonic ecdysteroids and cuticular cycles. Same species as a (with J.-P. LOUVET, B.FOURNIER and M. CAVALLIN)
DAILLIE, J.; D.Sc. – Lab. de Rech. sur la Différ. et la Transform. Cell., Univ. Claude Bernard Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Molecular differentiation of the silk gland. Bombyx mori (Lepidoptera)
b Expression of Epstein-Barr virus genome in lymphoblastoid cells. Homo sapiens (Primates)
D'AMELIO, V.; Ph.D., Prof. – Ist. di Istol. ed Embriol., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
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'épithelium (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, Šalata 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)
D'ANNA, T.; Dr.nat.sci. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Enzyme activity in embryonic development. (Ascidiacea)
b Respiratory metabolism during embryonic development. (Ascidiacea)
c Ultrastructure of dermal chromatophores. Discoglossus pictus (Anura)
d Glycogen in growing oocytes and developing eggs. (Ascidiacea)
DARNBROUGH, C. H.; Ph.D. – Dept. of Molec. Biol., Univ. of Edinburgh, King's Bldgs., Mayfield Rd., EDINBURGH EH9 3JR, Scotland, UK
DAVANT, Ms. N.; Dr.biol.anim. – 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)
DAVID (BÖGLI), Ms. D.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont II, B.P.45, 63170 AUBIÈRE, France
a Action des pesticides sur le développement de l'embryon; analyse des résidus. (Aves)
DAVID, P.; D.C.D., D.S.O. – Lab. of Histopathol., Inst. Pasteur, 25 Rue du Docteur Roux, 75015 PARIS, France
a Odontogenesis in teratoma
DAVIDOVA, S. I. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Influence of environmental conditions and thyroxine on the reaction of the follicle to hormones. (Acipenseridae, Chondrostei) (with T. A. DETTLAFF)
b Desynchronization and changes in the rate of cell divisions during the pregastrula period. Misgurnus

fossilis, Cyprinus carpio (Teleostei), Ambystoma mexicanum (Urodela)

DAVIDSON, D. R.; Ph.D. – M.R.C. Clin. and Popul. Cytogenet. Res. Unit, Western Gen. Hosp., EDINBURGH EH4 2XU, Scotland, UK

a 1. Regionalisation of the source mesoderm responsible for regional differences in skin appendage patterns and its relation to axial segmentation; 2. organisation responsible for temporal co-ordination of spatial differences in the onset of organ primordium morphogenesis. (Teleostei; Amphibia; Reptilia), Gallus domesticus (Aves)

b Morphogenesis of the feather primordium, in particular relative roles of cell division and cell movement in forming dermal condensations in cultured dorsal skin. Gallus domesticus (Aves)

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

DEAK, I.; Dr.phil., Prof. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

a Origin, fate, distribution and organization of muscle precursor cells; differentiation of muscle ultrastructure, especially myofibrils (biochemistry of mutations affecting muscle development). Drosophila melanogaster (Diptera)

b Theoretical considerations concerning the establishment and distribution of positional information in young embryos (prior to neurulation or its equivalent). (Metazoa)

c Experiments involving cytoplasmic, nuclear or cellular transplantation in young embryos. Same species as a

DE BERNARDI LARIA, Ms. F.; Ph.D., Prof. – Ist. di Zool., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy

a Transcription and translation during neurulation. Xenopus laevis (Anura)

b RNA action in induction and differentiation of somites. Gallus domesticus (Aves)

DECROLY (BRIERS), Ms. M.; D.Sc.Chim. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium

DELARUE, M.; Dr.3e Cycle – Lab. d'Immunol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France

a Nuclear and cytoplasmic transplantation. (Bufonidae, Anura)

DELAY, B. – Lab. Souterrain du C.N.R.S., Équipe de Biol. Souterraine, 09200 MOULIS, Saint-Girons, France

a Influence des facteurs abiotiques (température) sur le développement embryonnaire des espèces souterraines. Bathysciola spec., Speonomus spec., Antrocharis spec. (Bathysciinae, Coleoptera)

b Influence des facteurs abiotiques sur la reproduction. (Bathysciinae, Coleoptera)

DELBOS, Ms. M.; Ing.Rech. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE Cedex, France

a Analyse expérimentale des facteurs de la migration des cellules germinales

DELEANU, M.; Dr.med. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania

a Tissue culture; embryo culture. Gallus domesticus (Aves)

DE LEO, G.; Dr.nat.sci., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Fine structure of oocytes and eggs. Bolina spec. (Ctenophora), Ciona intestinalis (Ascidiacea), Paracentrotus lividus (Echinoidea)

b Fine structure of nucleated and non-nucleated halves of eggs. Paracentrotus lividus (Echinoidea), Ciona intestinalis, Ascidia malaca (Ascidiacea)

c Electron microscopy of mitochondrial genomic activity in activated eggs and non-activated enucleated halves. Paracentrotus lividus (Echinoidea), Phallusia mamillata, Ascidia malaca, Ciona intestinalis (Ascidiacea)

d Characterization of mitochondrial DNA of unfertilized, fertilized, and cleaving egg. Ciona intestinalis (Ascidiacea)

DE LUCCHINI, Ms. S.; 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)

DEMEUSY, Ms. N.; Prof. – Lab. de Biol. Anim., U.E.R. Sciences, Univ. de Caen, 14032 CAEN Cedex, France

a Ultrastructure of the integument of the carapace after removal of the moulting glands. Carcinus maenas (Decapoda, Crustacea)

b Ultrastructure of the mandibular glands. Same species as a

DENIS, H. A.; D.Sc., Prof. – Centre de Génét. Molec. du C.N.R.S., 91190 GIF-sur-YVETTE, France

a Mécanismes biochimiques de l'oogenèse. Xenopus laevis (Anura), Pleurodeles waltl (Urodela)

DENKER, H.-W.; Dr.rer.nat., Dr.med., Prof. – Dept. of Anat. and Reprod. Biol., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (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, UK
a Environmental control of xylem development. Acer pseudoplatanus (Aceraceae), Fraxinus excelsior (Oleaceae)

DENNHÖFER, Ms. L.; Dr.rer.nat. – Inst. für Entw.physiol. der Univ., Gyrhofstr. 17, 5000 KÖLN 41, BRD (Germany)
a Salivary gland chromosomes: 1. relation between puffing and development in vitro; 2. growth in vivo and in vitro; 3. underreplication in polytene chromosomes. Drosophila melanogaster (Diptera)

DENOULET, Ph.; 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 RNA during oogenesis. Pleurodeles poireti (Urodela)

DENUCÉ, J. M.; Dr., Prof. – Dept. of Zool., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands
a Morphology, physiology, and biochemistry of the hatching glands. Oryzias latipes, Gobius niger jozo (Teleostei), Ciona intestinalis (Ascidiacea)
b Changes in protein pattern during development. Bombyx mori (Lepidoptera), Oryzias latipes (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

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 waltl (Urodela)
c Hemoglobin switch (immunofluorescence; in vitro culture). (Urodela) (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 PICEIS POLVER, Ms. P.; Dr. – Inst. 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 norvegicus (Rodentia)
b Histochemistry of tetrahydrofolate dehydrogenase in embryonic and adult erythropoiesis. Gallus gallus (Aves), Rattus norvegicus (Rodentia)

DE POMERAI, D. I.; Ph.D. – Dept. of Zool., Univ. of Nottingham, University Park, NOTTINGHAM NG7 2RD, England
a Ultrastructure, immunology and cell properties of lenses with normal and genetically modified cell membranes. Gallus domesticus (Aves), Mus musculus (Rodentia) (with D. J. PRITCHARD (Newcastle) and R. M. CLAYTON (Edinburgh))
b Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with D. J. PRITCHARD and R. M. CLAYTON)
c In vitro analysis of transdifferentiation of neural and pigmented retina. Same species as a, and Homo sapiens (Primates) (with D. J. PRITCHARD and R. M. CLAYTON)
d In vitro analysis of teratogens. (with D. J. PRITCHARD and R. M. CLAYTON)

DERAY, A.; Dr.3e Cycle, Dr.d'État – 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)
b Sexual differentiation. Helix aspersa (Gastropoda)

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.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands
a Biochemistry and ultrastructure of polytene chromosome and specific nuclear ribonucleoprotein fractions. Drosophila hydei (Diptera)

DE SANTIS, R.; Dr. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy

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, 1090 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, 1092 AD AMSTERDAM-O., Netherlands

DESVAUX, 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)

DESVEAUX (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 Differentiation of haemopoietic cells in embryonic spleens grafted upon heterospecific chorioallantoic membrane. Gallus gallus, Coturnix c. japonica (Aves)

DETTLAFF, Ms. T. A.; Dr.biol., Prof. – N.K.Koltzov Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with P. E. FELGENHAUER and A. S. STEPANOV (Bakh Inst. of Biochem.))
b Influence of environmental conditions and thyroxine on the reaction of the follicle to hormones. (Acipenseridae, Chondrostei) (with S. I. DAVIDOVA)

DEUCHAR, Ms. E. M. †; Ph.D. – Univ. of Exeter, EXETER, England

DEVILLERS, C.; D.Sc., Prof. – Lab. d'Anat. Comp., Univ. de Paris VII, 2 Place Jussieu, 75221 PARIS Cedex 05, France

DEVRIES, 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)

DEWES, E.; Dr.rer.nat. – Fachber. Biol.-Zool., Univ. des Saarlandes, 6600 SAARBRÜCKEN 11, BRD (Germany)
a Postembryonic differentiation and regeneration of imaginal discs in vivo and in vitro. Ephestia kühniella (Lepidoptera)

DEXHEIMER, 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)
b Differentiation of Golgi apparatus and endoplasmic reticulum in secretory trichomes. Psychotria bacteriophila (Rubiaceae)

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)

D'HONDT, 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 postlarval stages. Alcyonidium polyoum, Bowerbankia imbricata, Flustrellidra hispida (Ctenostomata, Ectoprocta)
b Larva and metamorphosis. Various spp. (Cheilostomata & Cyclostomata: Ectoprocta)

DHOUAILLY, Ms. D.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Scient. et Méd. de Grenoble, B.P. 53 X, 38041 GRENOBLE, France
a Dermo-epidermal interactions after treatment with retinoic acid. Gallus gallus (Aves), Mus musculus (Rodentia) (with M.H.HARDY (Canada))

DICK, D. A. T.; D.Sc., Prof. – Dept. of Anat., Med. Sci. Inst., Univ. of Dundee, Hawkhill, DUNDEE DD1 4HN, Scotland, UK
a Distribution of ions in oocytes (electron microprobe X-ray analysis; stereology). Bufo bufo (Anura)

DIDIER (MARTIN), Ms. E.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont II, B.P. 45, 63170 AUBIÈRE, France
a Primordial germ cells and gonad organogenesis (scanning and transmission electron microscopy, cytochemistry, experiments). Gallus domesticus, Coturnix coturnix (Aves)

DIDIER, R.; Dr.3e cycle – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France

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)

DIETERLEN (LIÈVRE), 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

DI GRANDE, 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 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)

DITTMANN, F.; Dr.rer.nat. – Lehrst. Entw. physiol., Inst. für Biol. III, Univ., Morgenstelle 28, 7400 TÜBINGEN 1, BRD (Germany)
a Vitellogenic co-factors in polytroph-meroistic follicles. Apis mellifera (Hymenoptera), Musca domestica (Diptera)

DOBOZY, O.; M.D. – Dept. of Biol., Semmelweis Univ. of Med., P.O.B. 370, 1445 BUDAPEST, Hungary
a Effect of overlapping of hypophyseal hormones on embryonic and postembryonic development of gonads and thyroid. Gallus domesticus (Aves)
b Receptor deformation effect of various (polypeptide) hormones and drugs during perinatal life. Rattus rattus (Rodentia)

DODD, R.; B.A., B.Sc. – Dept. of Forest. and Wood Sci., Univ. Coll. of North Wales, BANGOR, Gwynedd LL57 2UW, Wales, UK
a Environmental control of xylem development in stem and rootwood. Acer pseudoplatanus (Aceraceae), Fraxinus excelsior (Oleaceae)

DOGTEROM, J.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Interaction with hormones during maturation and adaptation of the nervous system (radio immunoassay). 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, BRD (Germany)

DOHMEN, M. R.; Drs. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands
a Electron microscopy and biochemistry of morphogenetic plasms in eggs. (Spiralia)
b Surface properties of eggs in relation to cytoplasmic localisations. (Spiralia)
c Ultrastructural organisation of the plasma membrane and associated cytoplasmic elements: its role in early development. (Mollusca) (with J. G. BLUEMINK, Hubrecht Lab., N. H. VERDONK and J. A. M. v. d. BIGGELAAR)

DOLCEMASCOLO, G.; Dr. – Ist. di Biol. Gen., Univ. di Palermo, Via Divisi 83, 90133 PALERMO, Italy
a Histochemistry and ultrastructure of oogenesis and embryology. (Ascidiacea) (with V. MANCUSO and M. GIANGUZZA)

DOLLANDER, A.; Dr.méd., Prof. – 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 R. SEMBA, Japan et C. CHOFFEL)

DOLLENMEIER, P.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Control of cell proliferation and cell cycle during myogenesis in vitro. Gallus domesticus (Aves)

DONGEN, C. A. M. van; Dr. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, 3584 CH 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

DONKELAAR, H. J. ten; Dr. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, 6500 HB NIJMEGEN, Netherlands
a Development of the basal ganglia. Cricetulus griseus (Rodentia)

DOORENMAALEN, W. J. van; M.D., Ph.D., Prof. – Dept. of Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3a, 3512 BK UTRECHT, Netherlands
a Immunochemistry of lens induction and differentiation. (Aves)
b Developmental mechanics of suturae cranii. Rattus spec. (Rodentia) (with H. A. J. OUDHOF (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. nemocnice 3, 128 00 PRAHA 2, Czechoslovakia
a Early development of the limb bud: morphometric analysis. Gallus domesticus (Aves)
b Teratogenic action of new medicaments on early development. Same species as a

DOSTÁL, M.; MUDr., CSc. – Dept. of Teratol., Inst. of Exp. Med., 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 teratogenic activity of drugs. Same species as a

DOTT, H. M.; Dr. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the maintenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distribution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)
b Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)

DOUAY, F.; M.Sc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France

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)

DOURNON, C.; Dr.3e Cycle – Lab. de Biol. Anim., Univ. Paris VI (P.et M. Curie), 4 Place Jussieu, 75230 PARIS Cedex 05, France
a Prolifération des cellules germinales primordiales dans les conditions normales et expérimentales (système chimère, action de la température). (Urodela)

DOWNIE, J. R.; Ph.D. – Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QQ, Scotland, UK
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

DRABIKOWSKI, W.; Ph.D., Prof. – Nencki Inst. of Exp. Biol., 3 Pasteur St., 02-093 WARSZAWA, Poland

a Development of the systems involved in the regulation of muscular contraction and cellular motility

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, USSR

DREWS, U.; Dr.med., Prof. – Anat. Inst. der Univ., Österbergstr. 3, 7400 TÜBINGEN, BRD (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 and Gallus domesticus (Aves)

DROIN, Ms. A.; Dr.biol. – Stat. de Zool. Exp., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland

a Search of mutations through genetic analysis of somatic nuclei; description of the mutant tadpoles and analysis of their defects by histology and experimental embryological techniques. Xenopus spec. (Anura)

DROZDOV, A. L.; cand. biol.sci. – Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., USSR Acad. of Sci., VLADIVOSTOK 690022, USSR

a Mechanism of acrosomal reaction and cortical reaction, fate of mitochondrial patterns after fertilization. Crenomytilus grayanus (Bivalvia), Strongylocentrotus intermedius (Echinoidea), Oncorhynchus horbusha (Salmonidae, Teleostei)

b Biochemistry and ultrastructure of the cytoskeleton of gametes and embryonic cells. Strongylocentrotus intermedius (Echinoidea), Asterias amurensis (Asteroidea)

DRUGA, Ms. A.; M.D. – Inst. for Drug Res., 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 Effect of phenobarbital and SKF 525-A pretreatment on teratogenicity of perphenazine, to study whether unchanged perphenazine is teratogenic or not. Same species as a

DRUGA, R.; MUDr. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 00 PRAHA 2, Czechoslovakia

a Prenatal morphological development of basal ganglia. Felis domestica (Carnivora), Rattus norvegicus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

DRUKKER, J.; Ph.D., Prof. – Fac. of Med., State Univ. of Limburg, P.O. Box 616, 6200 MD MAASTRICHT, Netherlands

a Interaction between neurectoderm and target tissues. Gallus domesticus (Aves)

DÜBENDORFER, A.; Ph.D. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

a Embryogenesis and metamorphosis in vitro. Drosophila melanogaster (Diptera)

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 germinale et morphogenèse sexuelle. Gallus gallus (Aves) (avec D. CUMINGE)

b Biosynthèse glycoprotéique dans les ébauches gonadiques (topochimie, cinétique). Même espèce comme a

c Effets des lectines sur l'amiboïdisme 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

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, BRD (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

no work on developmental biology in progress

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. (Urodela)

b Role of non-histone chromatin proteins. (Urodela)

c Hemoglobin switch (immunofluorescence; in vitro culture). (Urodela) (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. (Urodela)

DURAND, J. P.; D.Sc. – Lab. Souterrain du C.N.R.S., Équipe de Biol. Souterraine, 09200 MOULIS, Saint-Girons, France

a Reproduction and development of cave dwelling forms.

b Experiments on ontogenesis and eye degeneration

DURANTE, Ms. M. C.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Cyclic nucleotides during embryonic development. Discoglossus pictus (Anura)

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)

DURFORT, Ms. M.; Dr. – Dept. de Morfol. y Microscop., Fac. de Biol., Univ. de Barcelona, Granvia 585, BARCELONA 7, Spain
a Oogenesis and fertilisation. Mytilus spec., Cardium spec. (Bivalvia), Trachydermon spec. (Amphineura), Mytilicola intestinalis, Lernanthropus spec., Caligus spec. (Copepoda), and other spp. (Crustacea)

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)
b Morphometry of placenta. Rattus norvegicus (Rodentia)
c Influence of malnutrition on development of placenta. Same species as b

DURSTON, A. J.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Analysis of cell behaviour (differentiation, movement, cell division, contact formation) underlying pattern formation (time lapse microcinematography, electrophysiology, immunology and other techniques). Dictyostelium discoideum and others (Acrasiales)

DUSPIVA, F.; Dr., Prof. (Emer.) – Physiol. Lehrst., Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, BRD (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., Prof. – Dept. of Biochem., Med. Sci. Inst., Univ. DUNDEE DD1 4HN, Scotland, UK
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

DYLEVSKÝ, I.; MUDr., Doc. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 00 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

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

ECOB-JOHNSTON, Ms. M. S.; Ph.D. – Musc. Dystr. Res. Labs., Region. Neurol. Ctr., Newcastle Gen. Hosp., Westgate Rd., NEWCASTLE-upon-Tyne NE4 6BE, England
a Myelin formation in organotypic cultures of dystrophic and normal spinal cord with attached dorsal root ganglia: effects of environment on Schwann cell-axon interaction. Mus musculus (Rodentia)
b Regeneration and differentiation of muscle from adult dystrophic mouse and from biopsies of human Duchenne dystrophy in organotypic neuromuscular cultures. Mus musculus (Rodentia), Homo sapiens (Primates)

ECONOMIDIS, I. V.; Ph.D. – Biol. Res. Ctr., Natl. Hellenic Res. Found., Vassil. Konstantinou 48, ATHENS 501/1, Greece
a Enzymatic characteristics and functional role of homopolymer synthetases (poly(A), poly(U), poly(C) and poly(G) polymerases) during development. Dictyostelium discoideum (Acrasiales)

EDE, D. A.; Ph.D. – Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, UK
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 G12 8QQ, Scotland, UK
a Formation of adhesions in reaggregating cells: embryonic cells: Gallus domesticus (Aves), cultured cell lines: various species
b Contact inhibition of locomotion between epithelial fibroblastic and other cell types: 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)

EFIMOV, E. A.; Cand.biol.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St.3, MOSCOW 117469, USSR

EFREMOVA, Ms. S. M.; Cand.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR
a Development and metamorphosis (histology, ultrastructure, autoradiography). Zubomirskia baicalensis, Baikalospongia bacillifera (Porifera)
EGBERTS, D. J. N.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA 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, 5000 KÖLN 41, BRD (Germany)
a Genetic basis of eye pigment differentiation. Ephestia kühniella (Lepidoptera)
b Gene action in morphogenesis. Same species as a
c Differentiation of the eye and optic lobe during metamorphosis, especially retina-lamina projections. Same species as a
d Eye differentiation. Cycloptiloides canarensis (Orthoptera)
EHN, J. A.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Embryology. (Arachnoidea)
EHRISMANN, Ms. R.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Surface changes during muscle differentiation. Gallus domesticus (Aves)
EKBLOM, P.; M.D. – Lab. of Exp. Embryol., 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 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.I, Schering AG, Müllerstr. 170-178, Postfach 650311, 1 BERLIN 65, BRD (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
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)
ELLINGTON (BUCKLEY), Ms. S. K. L.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
a Structure and physiology of the yolk sac placenta. Rattus spec. (Rodentia)
b In vivo and in vitro development of early postimplantion embryos and embryonic membranes. Same species as a
ELSDALE, T. R.; Ph.D. – M.R.C. Clin. and Popul. Cytogenet. Res. Unit, Western Gen. Hosp., EDINBURGH EH4 2XU, Scotland, UK
a Somitogenesis using temperature shocks to explore temporal dynamics of pattern specification. Rana temporaria (Anura)
ELSOME, K. T. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Factors influencing motility, morphology and fertilizing capacity of spermatozoa during storage in vitro, especially freezing and thawing and the effects of seminal plasma constituents; sperm survival in different regions of the female reproductive tract and the ageing of gametes in vivo; variations in fertility among males; capacitation of spermatozoa and fertilization in vitro. Sus scrofa domesticus (Artiodactyla)
b Methods for collection and transplantation of embryos; factors affecting the viability of embryos and the establishment of pregnancy following egg transfer; culture, storage and deep-freezing of embryos; manipulation of embryos in vitro and sex determination; maturation of oocytes in vitro; basic studies on early embryonic development. Same species as a
EMANUELSSON, H.; Fil.Dr. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3, 223 62 LUND, Sweden
a Isolation and characterization of structural proteins and enzymes of the intracellular yolk. Gallus gallus (Aves)
b Mobilization of yolk components during embryogenesis: successive intraembryonal distribution of RNA and certain yolk proteins, synthesized during oogenesis. Ophryotrocha labronica (Polychaeta)
c Synthesis of polyamines in the early embryo, particularly during gastrulation and early organogenesis. Same species as b
EMERIT, M.; D.Sc. – Lab. de Zool.II (Morphol. et Écol.), Univ. des Sci. et Techn. du Languedoc, place E.Bataillon, 34060 MONTPELLIER, France
EMIG, C. C.; D.Sc. – Stat. Marine d'Endoume, Univ. d'Aix-Marseille, Rue de la Batterie des Lions, 13007 MARSEILLE, France

a Reproductive biology; embryonic and larval development; systematics of Actinotrocha larvae (Phoronida)
b Phylogenetic relationships. (Bryozoa; Brachiopoda; Phoronida)

EMMERT, W.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Lehrst.I: Morphol. and Entw.biol., Röntgenring 10, 8700 WÜRZBURG, BRD (Germany)
a Pattern formation and polarity in metamorphosis. Calliphora vicina (= erythrocephala) (Diptera)
b Regulation capacities in situ of the abdominal imaginal disc system (histoblasts). Same species as a
c Segmental morphology of the post-abdomen. Same species as a

ENGELS, W.; Dr.rer.nat., Prof. – Lehrst. Entw.-physiol., Inst. für Biol.III, Univ., Morgenstelle 28, 7400 TÜBINGEN 1, BRD (Germany)
a Vitellogenin and vitellogenesis (separation, immunotest, electrophoresis, cytology, radio-isotopes). Apis spec., Meliponidae (Hymenoptera)
b Regulation of fertility (hormonal, pheromonal, and other social controls). Apis mellifera, Scaptotrigona postica (Hymenoptera)

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, BRD (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)

EPPER, F.; M.Sc. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
a Cell-lineage in genital discs and development of sexual dimorphism in the genitalia. Drosophila melanogaster (Diptera)

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)

ERRINGTON, L. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, D. J. BOWER, N. R. WAINWRIGHT, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))

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, C. W.; Ph.D. – Dept. of Anat. and Exper. Pathol., St.Andrews Univ., ST.ANDREWS KY16 9TS, Scotland, UK
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)
c Meiosis controlling events. Same species as a

EVANS, M. J.; Ph.D. – Dept. of Genet., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EH, England

EVANS, P. M.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, UK
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.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands

FACHBACH, G.; Dr.phil. – Zool. Inst. der Univ., Universitätsplatz 2, A 8010 GRAZ, Austria

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 (Ascidiacea; Echinoidea)
b Acetylcholine receptors in eggs and early embryos. Same species as a
c Naphthylamidase activities in eggs and embryos. (Cirripedia & Branchiopoda: Crustacea)

FANGHÄNEL, J.; Dr.sc.med. – Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr.9, 25 ROSTOCK 1, DDR (Germany)

FARGEIX, N.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont II, B.P.45, 63170 AUBIÈRE, France
a Lignée germinale et morphogenèse gonadique. (Aves)

FARINELLA (FERRUZA), Ms. N.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Hybridization. (Ascidiacea)

b Xenoplastic transplantation. Discoglossus pictus (Anura), Triturus cristatus (Urodela)
c RNA synthesis in egg development. Ciona intestinalis, Ascidia malaca, Clavellina lepadiformis (Ascidiacea)
d Action of hydrostatic pressure on embryonic development. Ascidia malaca, Ciona intestinalis, Ascidiella aspersa (Ascidiacea)
e Hybrids from fused gigantic eggs

FARNESI, Ms. R. M.; Dr. – Ist. di Anat. Comp., Univ. di Perugia, via A. Pascoli, 06100 PERUGIA, Italy
a Histochemistry and ultrastructure of a frontal structure present in larva and adult. Trissolcus spp. (Hymenoptera)
b Scanning electron microscopy of the cocoon shell. Branchiobdella pentodonta (Oligochaeta)

FARTHING, Ms. P. M.; B.Sc. – Dept. of Physiol., Univ. of Edinburgh Med. School, Teviot Place, EDINBURGH EH8 9AG, Scotland, UK
a Development of the lateral motor column in the lumbar region with relation to the limb. Gallus domesticus (Aves)

FAUCOUNAU, Ms. N.; Dr.Biol. – 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
no work on developmental biology in progress

FAZEKAS (TODEA), Ms. I.; M.D. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania
a Experimental teratology; culture of embryos. Mus musculus, Rattus norvegicus (Rodentia)
b Development of embryonic axial organs (somitogenesis). Gallus domesticus (Aves)

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)
b Analyse enzymatique des organites spécifiques du poumon chez l'embryon. Same species as a

FEIERTAG (KOPPEN), Ms. C. C. M.; Drs. – Vakgroep Genetica, State Univ. of Groningen, Biol. Ctr., Vleugel A, 9751 NN HAREN, 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 Bd., 8000 ÅRHUS C, Denmark
a Migrating epithelial cells in palatal wounds (cytology; scanning electron microscopy; morphometry). 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.; lic.phil.nat. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahlistr.8, 3012 BERN, Switzerland
a Estrogen-dependent synthesis of vitellogenin in vitro. Xenopus laevis (Anura) (with R. WEBER and G. U. RYFFEL)

FELGENHAUER, P. E. – N.K.Koltzov Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DETTLAFF and A. S. STEPANOV (Bakh Inst. of Biochem.))

FELIX, J. M.; D.Sc. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France

FELL, Dame Honor B. – Dept. of Pathol., Div. of Immunol., Univ. of Cambridge, Lab. Block, Addinbrooke's Hosp., Hills Rd., CAMBRIDGE CB2 2QQ, England

FENSOM, 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)

FERGUSON, M. W. J.; B.Sc., B.D.S. – Anat. Dept., Med. Biol. Ctr., Queen's Univ., 97 Lisburn Rd., BELFAST BT9 7BL, Northern Ireland, UK
a Statistical, macroscopic, microscopic, radiological, and histochemical study, especially of the head region, covering the entire incubation period and extending into the adult structure. Alligator mississippiensis (Crocodilia)
b Macroscopic, histological, histochemical, ultrastructural, and experimental study of the embryology of the palate and the pathogenesis of cleft palate; the precise teratogenic effects of 5-fluoro-2-desoxyuridine. Rattus norvegicus (Rodentia)

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 female. Pleurodeles waltl (Urodela) (with J. C. BEETSCHEN)

FERNHOLM, B.; Dr., Prof. – Roskilde Univ. Ctr., Postbox 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 GENÈVE 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)
c Genetical aspects of enzyme differentiation. Same species as a (with F. GASSER and A. JAYLET)

FERRINI, U.; M.D., Prof. – Ist. di Zool. "Federico Raffaele", Viale dell' Università 32, 00161 ROMA, Italy

a Activation of protein synthesis during embryonic development. Bufo bufo (Anura)
b Fertilization and polyspermy. Paracentrotus lividus (Echinoidea)

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

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 Autoradiography of oogenesis and morphogenesis. (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
h Transition of pachytene to diplotene stage in meiosis. Same species as b

FILOGAMO, G.; M.D., Prof. – Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeglio 52, 10126 TORINO, Italy
a Neurogenic control versus autonomous determination of muscle cell in vivo and in vitro. Gallus domesticus (Aves)
b Determination of somitic mesodermal cells by skeletal and myocardial myoblasts. Gallus domesticus, Coturnix coturnix (Aves)

FILONI, S.; Dr.biol. – Ist. di Anat. Comp., Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
a Relationship between eye factors and lens-forming transformations in the cornea and pericorneal epidermis of larvae. Xenopus laevis (Anura)
b Role of innervation in limb regeneration. Same species as a

FILOSA PARISI, Ms. S.; Dr. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
a Morphology and physiology of the differentiation of the follicle cells during oocyte growth. Lacerta s. sicula (Lacertilia)
b Pattern of cell division during cleavage. Paracentrotus lividus (Echinoidea)

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, BRD (Germany)
a Comparative histology and ultrastructure of yolk resorption. Galathea spec., Eupagurus spec., Orconectes spec. and others (Decapoda, Crustacea)
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. Loligo 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)

FISCHBERG, M.; Dr.phil., Prof. – Stat. de Zool. Exp., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Diploid and haploid gynogenesis and sex determination. Xenopus laevis (Anura)
b Search for mutants, particularly for the nucleolar organizer. Same species as a
c Allelic suppression of the formation of the nucleolus in hybrids. Same species as a
d Fertility of hybrids. Same species as a

FISCHER, A.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, BRD (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)
c Existence and origin of vitellogenin in oogenesis; mechanism(s) controlling oocyte differentiation. Same species as a
d Fine structure compared in follicular, nutrimentary oogenesis, Piscicola geometra (Hirudinea) and diffuse oogenesis, Echinorhynchus truttae (Acanthocephala)

FISCHER, B.; Dr.agr. – Dept. of Anat. and Reprod. Biol., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (Germany)
a Development of blastocysts in vitro; transfer of preimplantation stages; investigation of their developmental potential. Oryctolagus cuniculus (Lagomorpha)

FISCHER, B. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0QJ, England
a Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)

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
d Activité de cysteine-lyase chez les embryons. Scyllium canicula and other spp. (Elasmobranchii), Aphyosemion gardneri and other spp. (Teleostei)

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

FLINT, O. P.; Ph.D. – Pathol., Safety of Med., Pharmaceut. Div., Imperial Chemical Industries, Ltd., P.O.Box 25, Alderley Park, MACCLESFIELD, Cheshire SK10 4TG, England
a Development of in vitro techniques (embryo, organ and cell culture) for the detection of teratogens. Gallus gallus (Aves), Mus musculus, Rattus norvegicus (Rodentia), Hapale spec. (Primates)

FLOOD, P. R.; M.D., Assoc.Prof. – Inst. of Anat., Univ. of Bergen, Årstadvei 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)
c Ultrastructure of larvae. Doliolum mülleri, Dolioletta gegenbauri (Thaliacea, Tunicata)

FOLIGUET, B. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

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)
c Origin and differentiation of the neuropeptidergic innervation of the embryonic digestive tract. Gallus domesticus, Coturnix c. japonica (Aves)

FONTÉS, 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 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, UK

FORMAN, D.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
a Tissue patterning and in vitro differentiation of embryonic mesoderm. Xenopus laevis (Anura), Ambystoma mexicanum (Urodela)
b Pattern formation and sorting out. Dictyostelium discoideum (Acrasiales)

FOSTER, G. F. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the maintenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distribution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)
b Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)

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 pupal diapause; influence of external factors; cold acclimation in hibernating diapause pupae. Pieris brassicae (Lepidoptera)

FOURNIER, B.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
a Ecdysterone and embryonic leg regeneration. Carausius spec. (Phasmida)
b Cephalic endocrine glands and embryonic regeneration. Same species as a (with J. ROGUEDA)
c Embryonic ecdysteroids and cuticular cycles. Same species as a, and Clitumnus spec. (Phasmida), Calliphora spec. (Diptera), (Astacidae, Decapoda, Crustacea) (with J.-P. LOUVET, N. BORDES, M. CAVALLIN and N. DAGUERRE de HUREAUX)

FOX, G. Q.; Ph.D. – Abt. für Neurochemie, Max-Planck Inst. für biophysik. Chemie, Postfach 968, 3400 GÖTTINGEN, BRD (Germany)
a Differentiation and maturation of the electric organ: 1. Spatiotemporal analysis of synaptogenesis; 2. Morphological evaluation of explants of electric lobe and electric organ. Torpedo marmorata (Elasmobranchii)

FOX, H.; Ph.D., D.Sc. – Dept. of Zool., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
a Ultrastructure of larval tissues. Rana temporaria, Xenopus laevis (Anura)
b Larval growth. Same species as a (with S. C. TURNER, Portsmouth)
c 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, Panepistimioupolis, Kouponia (621), ATHENS, Greece

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

FRANCO, Ms. N.; Lic.Sci. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

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, Å. 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

FRASER, Ms. L. REPSIS; Ph.D. – Dept. of Hum. Biol., Basic Med. Sci. Grp., Chelsea Coll., Manresa Rd., LONDON SW3 6LX, England
a In vitro fertilization: 1. effect of gamete age, culture conditions, etc., on developmental potential and on chromosomal complements; 2. biochemical basis for sperm capacitation. Mus musculus (Rodentia)

FRENCH, V.; D.Phil. – Dept. of Zool., Univ. of Edinburgh, King's Bldgs., West Mains Rd., EDINBURGH EH9 3JT, Scotland, UK
a Pattern formation in the epidermis of regenerating appendages and body segments; regeneration and cell lineage; relationship between pattern in epidermis and muscle. Blabera craniifer (Blattodea), Acheta domesticus (Orthoptera)

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, DDR (Germany)

FREYSSINET, G.; Dr.d'État – Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Nutritional requirements for chloroplast formation. Euglena gracilis (Euglenophyceae)
b Formation of chloroplast proteins during chloroplast development. Same species as a

FULCRAND, J.; D.Sc. – Lab. de Neurophysiol., Univ. des Sci. et Techn. du Languedoc, place E. Bataillon, 34060 MONTPELLIER Cedex, France
a Ontogenèse 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, USSR

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 Pseudohypoadrenocorticism (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

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, 2333 AA LEIDEN, Netherlands

GAJÓ, Ms. M.; M.D. – Dept. of Anat., Univ. Med. School, 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
GALLERA, J.; D.Sc. – Lab. d'Embryol. Exp., Inst. d'Histol., Univ. de Genève, 20 rue de l'École 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 waltlii, Ambystoma mexicanum (Urodela)
c Transcription and translation of DNA injected into oocytes. Pleurodeles waltlii (Urodela)
GALLISSIAN, Ms. M. F. – Stat. Marine d'Endoume, Univ. d'Aix-Marseille, Rue de la Batterie des Lions, 13007 MARSEILLE, France
a Description of the development (electron microscopy). Grantia compressa (Calcarea, Porifera) (with J. VACELET)
GALLO, Ms. V.; Dr.biol.sci. – Ist. di Zool. "F.Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
a Differentiation of adrenal chromaffin cells. Salmo fario (Teleostei)
GALLOIS-DIDELOT, Ms. D. – Cytophysiol. des Arthropodes, U.E.R. de Biol.-Zool., Univ. Paris VI (P.et M. Curie), 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., Prof. – Dept. of Anat., St. Thomas's Hosp. Med. School, LONDON SE1 7EH, England
a Development of peripheral nervous tissues in the fetus. Homo sapiens (Primates)
b Development of striated muscle in the fetus. Same species as a
GARCIA AUSTT, E.; M.D. – Dept. de Invest., Centro "Ramón y Cajal", Ctra. de Colmenar Km.9, MADRID 34, Spain
a Computerized atlas of the developing brain. Rattus norvegicus (Rodentia)
b Development of unit activity in the hippocampus in relationship with the theta rhythm. Same species as a
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 imaginal discs. Drosophila melanogaster (Diptera)
b Developmental effects of chromosome deficiencies. 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)
GARCIA-PORRERO, J. A.; Dr.Med. – Serv. de Embriol. Exp., Dept. de Anat., Fac. de Med., SANTANDER, Spain
a Cell death during normal and abnormal morphogenesis of the eye (optic, transmission and scanning electron microscopy). Gallus domesticus (Aves)
b Postnatal development of the kidney (optic, transmission and scanning electron microscopy). Oryctolagus cuniculus (Lagomorpha)
GARCIA VALDECASAS HUELIN, J. M.; Dr. – Serv. Embriol. Exp., Dept. Anat., Alava Univ., VITORIA, Spain
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 Hormone regulation of ovarian and Bidder's organ oogenesis. Same species as a
c Developmental biology. Macquartia chalconota (Larvaevoridae, Diptera)
GARDNER, R.; Ph.D. – Sir William Dunn School of Pathol., Univ. of Oxford, South Parks Rd., OXFORD OX1 3RE, 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)
b Physiological role of vitamin D3 metabolites during gestation and fetal life. Rattus spec. (Rodentia)
GARROD, D. R.; Ph.D. – Med. Oncol. Unit, Ctr. Block, Southampton Gen. Hosp., SOUTHAMPTON SO9 4XY, 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 Corticosteroid 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. Pleurodeles waltl (Urodela) (with V. FERRIER and A. JAYLET)
b Gene expression in interspecific hybrids. Bufo spec. (Anura) (with R. SIBOULET)

GATEFF (ZOLLIKOFER), Ms. E. A.; Ph.D. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, BRD (Germany)
a Normal and abnormal (neoplastic) development of nervous system, imaginal discs and hematopoietic system (tissue culture). Drosophila melanogaster (Diptera)
b Analysis of genetically controlled neoplasms. Same species as a

GAUB-PLICHON, Ms. M. 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 Nucleo-cytoplasmic interactions during development of hybrids. Ambystoma mexicanum, A. dumerilii (Urodela)

GAUDECKER, Ms. B. von; Dr.rer.nat. – Anat. Inst., Med.Fak., Univ., Olshausenstr. 40-60, 2300 KIEL, DBR (Germany)
a Ultrastructure and histochemistry of prepupal and pupal salivary glands. Drosophila melanogaster (Diptera)
b Development of the lymphatic system including thymus, lymph nodes, tonsils and spleen. Homo sapiens (Primates)

GAUNT, S. J.; B.Sc. – Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
a Production of monoclonal antibodies to surface determinants on teratocarcinoma cells; testing for cross reaction with embryos; assessment as markers of differentiation and blockers of cell functions and embryonic development. Mus musculus (Rodentia)
b Metabolic co-operation between teratocarcinoma cells and cells taken from early embryos through gap junctions. Same species as a

GAZARYAN, K. G.; Dr.biol., Prof. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
a Genome structure and genome expression in early embryos and differentiating cells. Misgurnus fossilis (Teleostei), Drosophila melanogaster (Diptera), Columba livia (Aves), Mus musculus (Rodentia)

GEBHARDT, D. O. E.; Ph.D. – Dept. of Obstet. and Gynecol., State Univ., Acad. Hosp., Rijnsburgerweg 10, 2333 AA 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; gene cloning. Drosophila spec. (Diptera)

GEILENKIRCHEN, W. L. M.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands

GENDEREN, H. H. van; Drs. – Bot. Lab., State Univ., Lange Nieuwstr. 106, 3512 PN UTRECHT, Netherlands
a Regeneration. Silene alba (Caryophyllaceae)
b Influence of flavonoids on the development of flower form. Same species as a

GÉNIS-GÁLVEZ, J. M.; Med.Dr., Ph.D., Prof. – Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med., Univ. of Sevilla, SEVILLA, Spain
a Histogenesis of the retina: ultrastructure of photoreceptors; oil droplets. Gallus gallus (Aves)

GENNSER, G.; M.D., Assoc. Prof. – Dept. of Obstet. & Gynecol., Kvinnokliniken, Allmänna sjukhuset, 214 01 MALMÖ 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
d Fetal rhythms (natural, influences by external stimuli). Same species as a

GEORGES, Ms. D.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, 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)
c Detection of vertebrate-like hormones in the neural complex by immunofluorescence. Ciona intestinalis (Tunicata)
d Localization of collagen in developing skin by type-specific antibodies. Gallus gallus (Aves)

GERACI, G.; Ph.D. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy
a Hemoglobins of the developing embryo and their localisation in the erythrocytes; DNA of globin genes
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

GERISCH, G.; Dr.rer.nat. – Max-Planck-Inst. für Biochem., 8033 MARTINSRIED, BRD (Germany)
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
GERVASO, Ms. M. V.; Dr. – Inst. of Comp. Anat., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
a Effect of lathyrogenic substances on larvae. Xenopus laevis (Anura), Salamandra salamandra (Urodela)
b Histochemistry of tetrahydrofolate dehydrogenase in embryonic and adult erythropoiesis. Gallus gallus (Aves), Rattus norvegicus (Rodentia)
GERZELI, G.; Prof. – Inst. 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 norvegicus (Rodentia)
b Effect of lathyrogenic substances on larvae. Xenopus laevis (Anura), Salamandra salamandra (Urodela)
c Histochemistry of tetrahydrofolate dehydrogenase in embryonic and adult erythropoiesis. Gallus gallus (Aves), Rattus norvegicus (Rodentia)
GEUSKENS, M.; D.Sc.Zool. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
a Plasma membrane and cytoskeleton (microtubules and microfilaments) organization in control and lectin-treated embryos or dissociated cells (electron microscopy, ultrastructural cytochemistry). Xenopus laevis (Anura), Pleurodeles waltl (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
a Yolk deposition during growing phase of the oocytes. Lacerta s. sicula (Lacertilia)
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'Azeglio 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
c Molecular forms of acetylcholinesterase in developing nervous system. 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. (Ascidiacea) (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 – Lehrst. für spez. Zool., Zool. Inst. der Univ., Hüfferstr. 1, 4400 MÜNSTER, BRD (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 blainvillei (Platanistoidea, Cetacea)
GILBERT, A. B.; Ph.D. – Poultry Res. Ctr., Agric. Res. Counc., King's Bldgs., West Mains Rd., EDINBURGH EH9 3JS, Scotland, UK
a Yolk transport mechanism in ovarian follicle. Gallus domesticus (Aves)
GINSBURG, Ms. A. S.; Dr.biol. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Sperm ultrastructure and acrosome reaction. Acipenser stellatus, A. güldenstädti (Chondrostei)
b Influence of oocyte activation at different stages of its maturation on the nuclear meiotic block. Same species as a
GINSBURGER-VOGEL, T.; D.Sc. – Endocrinol. des Arthropodes, E.R.229, Génét. Bât. E, C.N.R.S., 91190 GIF-sur-YVETTE, France
a Genetics of sex determination and influence of epigenetic factors on sexual differentiation. Orchestia gammarellus, O. montagui, Talitrus saltator (Amphipoda, Crustacea)
GIOLITTI, G.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto 1, 00100 ROMA, Italy
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. (Urodela)
c Immunochemical characterization of yolk precursors in blood and their role in the formation of yolk spheres in oocytes. Triturus cristatus (Urodela)
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, A.; Prof. (Emer.) – Lab. d'Histol.-Embryol.B, Fac. de Méd., 45 Rue des Sts.Pères, 75 PARIS VIe, France

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

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 Synthesis of rRNA in different embryonic territories. Same species as a
c Protein synthesis in spermiogenesis. Same species as a

GLAS, P.; Ph.D. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, 9713 EZ GRONINGEN, Netherlands
a Fusion of the septal walls of the fissure longitudinalis cerebri in the telencephalon and the contribution of commissura 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, BRD (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 Blastocyst implantation in vitro. (Rodentia; Lagomorpha; Primates)
b Behaviour of trophoblasts in vitro. Same species as a
c Development of embryos in vitro. Same species as a
d Ultrastructure of embryo-maternal relationships during implantation. Same species as a

GLINZ, Ms. S.; Dipl.nat. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

GLOS, K. I. von – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the maintenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distribution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)

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.; D.Sc. – Zool. Dept., Jagellonian Univ., ul. Karasia 6, 30-060 KRAKÓW, Poland
a Spermatogenesis. Pyrrhocoris apterus (Heteroptera)

GOLICHENKOV, V. A.; Cand.sci. – Lab. of Devl. Cell Physiol., Biol. Fac., Moscow State Univ., Lenin Hills, MOSCOW 117234, USSR
a Ontogenesis of melanophores: structure, mitosis, movement of the melanin granules, regulative factors. Rana temporaria, R. esculenta, R. arvalis, Bufo viridis, Xenopus laevis (Anura)

GOLIŃSKA, 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 thereon. Dileptus anser, D. cygnus (Ciliata)
b Structural transformation of sensory cilia during regeneration. Dileptus anser (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)
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. F. LUCARZ-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 coeur. 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)

GONCHAROV, B. F.; Cand.biol.sci. – N.K.Koltzov Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR

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., USSR

GOSWAMI, M. N. D.; Ph.D. – Lab. de Physio-Pathol. Cell., Inst. Gustave-Roussy, 16bis Av. P. Vaillant-Couturier, 94 VILLEJUIF, France

GÖTTING, K. J.; Dr.rer.nat., Prof. – I.Zool. Inst., Fachber. Biol., Univ. Giessen, Stephanstr. 24, 63 GIESSEN, BRD (Germany)

a Electron microscopy of oogenesis in marine forms. (Teleostei)

b Viviparity. Zoarces viviparus (Teleostei)

GOTZOS-CAPPELLI, Ms. B.; Dr.biol. – Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 1700 FRIBOURG, Switzerland

a Quantitative microdensitometry on the cell cycle of fibroblasts in vitro under different experimental conditions. 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.3e 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 ultrastructurale, analyse biochimique des protéines microtubulaires). Pleurodeles waltl (Urodela)

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

d Morphogenetic movements during cleavage. Same species as a (with E. I. LEHTONEN, Helsinki)

GRAZIOSI, G.; D.Sc. – Inst. of Zool. and Comp. Anat., Univ. of Trieste, via A. Valerio 32, 34127 TRIESTE, Italy

GREEN, D. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

GRIBNAU, Ms. A. A. M.; Dr. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, 6500 HB NIJMEGEN, Netherlands

a Development of the prosencephalon. Macaca mulatta (Primates)

GRIFFOND (ROGNON), Ms. B.; D.Sc. – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France

a Différenciation et fonctionnement de l'appareil génital. Helix aspersa (Gastropoda)

GRIGNON, G.; Prof. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

GRIM, M.; MUDr. – Dept. of Anat., Charles Univ., U. nemocnice 3, 12800 PRAHA 2, Czechoslovakia

a Prenatal development of muscles. Ambystoma mexicanum (Amphibia), Gallus domesticus (Aves), Homo sapiens (Primates)

b Muscle regeneration. Ambystoma mexicanum (Urodela), Rattus norvegicus (Rodentia)

GRINSTED, J.; M.D. – Finsen Lab., Finsen Inst., Strandboulevarden 49, 2100 COPENHAGEN Ø, Denmark

a Development and function of gonads in the fetus; regulation of meiosis and cell dynamics of gonadal cell populations (flow cytometry, autoradiography). (Rodentia; Primates)

b Steroid production during early gonad development. Same species as a

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)

b Repair DNA synthesis during spermatogenesis. Mus musculus (Rodentia)

GRODZIŃSKI, Z.; D.Sc., Prof. (Emer.) – Dept. of Comp. Anat., Jagellonian Univ., ul.M.Karasia 6, 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 Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, 3512 BK UTRECHT, Netherlands

GROSCURTH, 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 Virus 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., Postfach 102148, 4630 BOCHUM 1, BRD (Germany)
a Ultrastructure and histochemistry of the differentiating retina. Tilapia spec. (Teleostei), Xenopus laevis (Anura)
b Role of light in retina development. Same species as a
c Ultrastructure and histochemistry of differentiating pineal eye. 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, BRD (Germany)
a Changes of cell affinity and cell membranes during early embryonic induction and differentiation. 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
no work on developmental biology in progress

GUASTALLA, Ms. A.; Dr. – Inst. of Histol. and Embryol., Univ. of Torino, via Giolitti 34, 10123 TORINO, Italy
no work on developmental biology in progress

GUEDENET, J. C.; Ing. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

GUERRE-MILLO, Ms. M.; 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 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-Teissier, 29211 ROSCOFF, France
a Epigenesis of axial patterns during early development: intracellular activation and intercellular relations (microsurgery, isotope labeling). Dentalium vulgare (Scaphopoda), Patella vulgata (Gastropoda)
b Hormonal control of meiosis reinitiation, cellular and biochemical aspects. Xenopus laevis (Anura), Marthasterias glacialis (Asteroidea)
c Control of early embryogenesis. Sphaerechinus granularis (Echinoidea), Dentalium vulgare, Patella vulgata (Mollusca)
d Calcium in cell activation

GUIALIS, Ms. A.; Ph.D. – Biol. Res. Ctr., Natl. Hellenic Res. Found., Vassil. Konstantinou 48, ATHENS 501/1, Greece
a Structure and function of nuclear ribonucleoproteins during development, especially association of cellular RNA with protein and putative small molecular weight RNA species. Dictyostelium discoideum (Acrasiales)
b Structure and function of RNA polymerases at different developmental stages (biochemistry and genetics). Same species as a

GUIET, 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)
b Ultrastructure and permeability of amnion and placenta to inorganic ions. Same species as a

GUIGNARD, J.-L.; Prof. – Lab. de Bot., Fac. de Pharm. de Paris-Sud, rue J. B. Clément, 92290 CHATENAY-MALABRY, France
a Differentiation of embryoids. Lychnis dioica (Caryophyllaceae), Cheiranthus cherii (Cruciferae)
b Ultrastructure of antipodal cell. (Helobiae, Angiospermae)

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

GUILLET, C.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Energetic metabolism control during development and diapause at mitochondrial level. Drosophila melanogaster (Diptera), Pieris brassicae (Lepidoptera)

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)
b Les protéines au cours de la différenciation du sexe. Pleurodeles waltl (Urodela)

GUIRAO-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 External and internal development of the embryo. Putorius p. furo (Carnivora)
b Placental transfer mechanisms. Same species as a
c Nutritional mechanisms in the $9\frac{1}{2}$–$11\frac{1}{2}$-day embryo and their susceptibility to modification by teratogens in vivo and in vitro. Rattus norvegicus (Rodentia)
d Development of limb buds in organ culture. Same species as a

GULLUNI CUOMO, Ms. M.; Dr. – Ist. di Biol. Gen., Fac. di Med., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy

GUMPEL (PINOT), Ms. 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 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'epididyme (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)

GUREEVA-PREOBRAZHENSKAYA, Ms. E. V. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, USSR

a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)

b Mechanisms of hormonal regulation of ovulation in vitro. (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 ciliary 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)

GUTZEIT, H. O.; Dr.phil. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG, BRD (Germany)

a Qualitative analysis of protein synthesis during oogenesis and embryogenesis. Drosophila melanogaster (Diptera)

b Localisation of specific proteins in wild-type and mutant follicles (immunocytology). Same species as a

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)

b Ultrastructure d'embryons avec caryopathies induites par exposition à diverses doses d'irradiation. Pleurodeles waltlii (Urodela)

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. 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, 6525 ED NIJMEGEN, Netherlands

a Mechanism of epiboly. Nothobranchius spp. (Teleostei)

b Cleavage pattern and variability in cleavage times. Same species as a

HAASTERT, P. J. M. van; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands

a Chemotaxis and cell aggregation. Dictyostelium spec. (Acrasiales)

HABETS, A. M. M. C.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands

a Synaptogenesis in brain tissue cultures (electrophysiology). Rattus norvegicus (Rodentia)

HARBROVÁ (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)

b Pigment formation in albinos. (Amphibia) (with A. ROMANOVSKÝ and F. SLÁDEČEK)

HACCIUS, Ms. B.; Dr., Prof. – Inst. für spez. Bot. und Bot. Garten, Univ., 65 MAINZ, BRD (Germany)

a Adventitious buds or somatogenic embryos from in vitro cultivated tissues. (Angiospermae)

b Embryogenesis (Palmae)

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: bound 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)

HACKSTEIN, J.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands

a Genetics of spermiogenesis. Drosophila hydei (Diptera)

HAFFEN (STENGER), Ms. K. E.; D.Sc. – Unité de Rech. No. 61, INSERM, Av. Molière, 67200 STRASBOURG/Hautepierre, France

a Enzymatic differentiation during intestinal development. (Rodentia)

HAGELIN, L.-O.; Dr. – Dept. of Zool., Univ. of Stockholm, Box 6801, 113 86 STOCKHOLM, Sweden

no work on developmental biology in progress

HAGENMAIER, H. E.; Dr.rer.nat., Prof. – Fachber. 6 – Biol., Gesamthochschule, Postfach 101629, 4100 DUISBURG 1, BRD (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 superficial cleavage. Leptinotarsa spec. (Coleoptera)
b Activity of the corpora allata in the embryo. Carausius spec. (Phasmida) (with A. P. RESSOUCHES and J. ROGUEDA)

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, BRD (Germany)

HALFER, Ms. C. – Ist. di Genet., Univ. di Milano, via Celoria 10, 20133 MILANO, Italy

HAMILTON, Ms. L.; Ph.D. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. School, Cleveland St., LONDON W1P 6DB, England

HÄMMERLING, J.; Dr.phil., Prof. (Emer.) – Schopenhauerstr. 27, 2940 WILHELMSHAVEN, BRD (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 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., Postfach 6380, 75 KARLSRUHE 1, BRD (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, BRD (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.), Uppsalalaan 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 cranio-caudal polarity in mesoderm induction (blastomere recombination, microcinematography). Bombina orientalis (Anura), 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. SL5 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, 1092 AD AMSTERDAM-O., Netherlands

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., Garscube Estate, Switchback Rd., Bearsden, GLASGOW G61 1BD, Scotland, UK
a Red blood cell development: 1. cloning of specific messenger RNAs involved at different stages of differentiation using recombinant DNA technology; 2. analysis of developmental antigens using monoclonal antibodies raised with the hybridoma technique. Mus musculus (Rodentia)

HARRISON, R. A. P. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the maintenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distribution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)
b Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)

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)
HARTE, Ms. C.; Dr., Prof. – Inst. für Entw. physiol., Univ. Köln, Gyrhofstr. 17, 5 KÖLN 41, BRD (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 of growing roots. (Gramineae) (with A. LINDENMAYER, Univ. of Utrecht)
d Protein content, protein pattern and enzyme activity in developing leaves as influenced by genes and environment. Same species as a
HARTGE, R.; Dr.med. – Frauenklinik der Med. Hochschule, Podbielskistr. 380, 3000 HANNOVER 1, BRD (Germany)
a Immunology of reproduction. Homo sapiens (Primates)
b Comparative morphology of placentation. (Mammalia)
HARTMANN, R.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, BRD (Germany)
a Light and electron microscopy of spermatheca development in connection with endocrine ablations. Gomphocerus rufus, Locusta migratoria (Orthoptera)
HARTWIG, H.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, BRD (Germany)
a Wirkungsmechanismus von Schilddrüsenhormonen. Salamandra spec., Triturus spec., Ambystoma spec. (Urodela)
b Epithelcysten. Same species as a
c Geweihbildung. 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
HAUENSCHILD, C.; Dr.rer.nat., Prof. – Zool. Inst. der Techn. Univ., Pockelsstr. 10a, 3300 BRAUNSCHWEIG, BRD (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)
HAY, Ms. M. F. †, Dr. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
HEASMAN-WYLIE, Ms. J.; B.Sc. (Hons) – Dept. of Struct. Biol., St. George's Hosp. Med. School, Cranmer Terrace, LONDON SW17 0RE, England
a Movement, adhesion and invasion of primordial germ cells. Xenopus laevis (Anura)
HEATH, J. P.; M.Sc. – Strangeways Res. Lab., Worts Causeway, CAMBRIDGE CB1 4RN, England
no work on developmental biology in progress
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, BRD (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, W. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 ERLANGEN, BRD (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; Bryozoa and other Coelomata)
HEINE, H.; Dr.rer.nat., Prof. – Anat. Inst. der Univ., Koellikerstr. 6, 8700 WÜRZBURG, BRD (Germany)
a Proteoglycans of the intercellular matrix in embryonic tissues, especially heart and vessels. (Mammalia)
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)

HEMMINGS, W. A.; D.Sc. – Dept. of Zool., Univ. Coll. of N. Wales, Brambell Labs., BANGOR, Gwynedd LL57 2UW, Wales, UK
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)

HENNIG, W.; Dr., Prof. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands
a Genetics and biochemistry of spermiogenesis. Drosophila hydei (Diptera)

HENNING, S. T. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEA, Sweden
a Mechanism of ciliation. Ambystoma mexicanum (Urodela)

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

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, 6525 ED NIJMEGEN, Netherlands
a Light and electron microscopy of the neurosecretory and sensory system during development. (Decapoda, Crustacea)
b Sensitivity of larval and juvenile stages to neurohumoral substances. (Decapoda, Crustacea)

HERRMANN, K. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 ERLANGEN, BRD (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, BRD (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

HEWING, Ms. M.; Dr.med. – Anat. Inst., Abt. für Exper. Biol., Univ. Bonn, Nussallee 10, 5300 BONN, BRD (Germany)
a Light and electron microscopy of the postnatal development of the pineal organ. Mesocricetus auratus (Rodentia)

HIE, H.; Drs. – Lab. of Anat. and Embryol., Vrije Univ., v.d.Boechorststr. 7, 1081 BT AMSTERDAM, Netherlands
a Regeneration of nerves, motor end plates and muscles. Rattus rattus (Rodentia)

HINCHLIFFE, J. R.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, UK
a Mechanisms of programmed differential growth rates of chondrogenic skeletal elements (tibia and fibula). Gallus domesticus (Aves)
b Ultrastructure (including SEM) of cell death and pre-chondrogenic skeletal condensation in the limb. Same species as a

HINRICHSEN, K.; Dr.med., Prof. – Lehrst. für Anat.I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, BRD (Germany)
a Myogenesis. Gallus domesticus (Aves), Mus musculus (Rodentia)
b Scanning electron microscopy of embryos. Homo sapiens (Primates)

HIPEAU-JACQUOTTE, Ms. R.; D.Sc. – Stat. Marine d'Endoume, Univ. d'Aix-Marseille, Rue de la Batterie des Lions, 13007 MARSEILLE, France
a Effect of epigenetic factors (especially host age) on morphogenesis and sexual differentiation (development can lead either to typical males and females, or to atypical males); the nature of the host influence (physiology). Pachypygus gibber = Agnathaner minutus (Notodelphyidae, Copepoda, Crustacea), host: Ciona intestinalis (Ascidiacea)

HIRN, M.; Dr.spéc. – Ctr. d'Immunol. INSERM-CNRS de Marseille Luminy, 70 Rte L. Lachamp, 13288 MARSEILLE Cedex 02, France

HOARAU, F.; Dr.spéc. – Lab. de Morphogen. Exp. et Caryol., Univ. de Provence – Centre St. Charles, Place Victor Hugo, 13331 MARSEILLE Cedex 3, France
a Morphologie, histologie et endocrinologie de la régénération. Helleria brevicornis (Isopoda, Crustacea)

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 (influence of dibutyryl cyclic AMP and its derivatives). Rattus norvegicus (Rodentia) (with N. ŠKREB)

HOFMANN, D. K.; Dr.rer.nat. – Inst. für Entw.physiol. der Univ., Gyrhofstr. 17, 5000 KÖLN 41, BRD (Germany)

a Experiments on relations between endocrine system and regeneration, maturation and metamorphosis. Platynereis dumerilii (Polychaeta)
b Control of medusa formation, induction of metamorphosis in larvae and vegetative buds. Cassiopea andromeda (Scyphozoa)

HOGAN, Ms. B. L. M.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, Mill Hill, LONDON NW7 1AD, England
a Control of gene expression and cell interaction during preimplantion and early postimplantation development; cell culture of isolated tissues, and appearance of membrane proteins. Mus musculus (Rodentia)
b Control of gene expression in teratocarcinoma cells in tissue culture. Same species as a, and Homo sapiens (Primates)

HOGE, J. H. C.; Drs. – Dept. of Devl. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN HAREN (Gr.), Netherlands
a Genome activity during development. Schizophyllum commune (Basidiomycetes, Fungi)

HOHL, H. R.; Dr.sc.nat., Prof. – Cytol. Lab., Inst. of Plant Biol., Univ. of Zürich, Zollikerstr. 107, 8008 ZÜRICH, Switzerland

HOLM, K. A.; Ph.D., Prof. (Emer.) – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Experimental embryology. (Araneida)

HOLTER, H.; Ph.D., Prof. (Emer.) – Biol. Inst., Carlsberg Found., 16 Tagensvej, 2200 COPENHAGEN N, Denmark

HONEGGER, T. G.; Dr.phil. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
a Ultrastructure and cytochemistry of oogenesis, spermatogenesis and fertilization. (Hydrozoa; Scyphozoa)

HOPERSKAYA, Ms. O. A.; Cand.biol.sci. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Isolation and purification of lens-inducing and melanogenic factors. Rana temporaria, Xenopus laevis (Anura)
b Transdifferentiation of retinal and iris pigment epithelium into lens. Same species as a (with G. V. LOPASHOV)

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 Development and karyotype using a lethal mutant. Mesocricetus auratus (Rodentia)
b Differentiation of coat pattern using a longhaired mutant. Same species as a

HORST, G. van der – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)

HÖRSTADIUS, 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. 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

HOSBACH, H.; Ph.D. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. Bern, Sahlistr. 8, 3012 BERN, Switzerland
a Hemoglobin transition in relation to metamorphosis. Xenopus laevis (Anura) (with R. WEBER)

HOUILLON, C.; D.Sc., Prof. – Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 place Jussieu, 75230 PARIS Cedex 05, France
a Xénogreffes de gonades; conséquences sur l'émission de pontes hétérologues. (Urodela)
b Différenciation sexuelle des chimères obtenues par greffes embryonnaires. (Urodela)
c Inversion du sexe par action de la température. Pleurodeles waltl (Urodela)

HOUSSAINT, Ms. E. – Lab. de Biol. du Dévl., Univ. de Nantes, 2 rue de la Houssinière, 44072 NANTES Cedex, France
a Différenciation biochimique des hépatocytes. Gallus gallus (Aves)
b Etude 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 and functional differentiation 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 nerve development in the urinary tract. Rattus norvegicus (Rodentia), Homo sapiens (Primates)

HUBER, W.; D.Sc., Prof. – Naturhist. Museum, Abt. für Morphol. und Biol. der Wirbeltiere, und Zool. Inst. der Univ., 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), Oryctolagus cuniculus (Lagomorpha)

e Fortpflanzung und Reproduktionsleistung. Lepus europaeus (Lagomorpha), Canis familiaris (Carnivora)

HUBERT-VAN STEVENS, Ms. E. M. C. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium

HUCHON, Ms. D. E.; D.Sc. – Lab. d'Embryol., Univ. Paris VI, 4 Place Jussieu, 75230 PARIS Cedex 05, 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 GONZALES, 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 (optic, transmission and scanning electron microscopy). Gallus domesticus (Aves), Mus musculus (Rodentia)

b Development and role of cardiac jelly (microsurgery, optic and electron microscopy). Gallus domesticus (Aves)

HURST, P. R.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

HUTCHINSON, J. S. M.; Ph.D. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, UK

a Identification and relative importance of physiological signals, signal acceptors and signal mediators in the control of: 1. sporulation and spore germination. Bacillus brevis (Bacteria); 2. development. Dictyostelium discoideum (Acrasiales); 3. liver and enzymes. Rattus norvegicus (Rodentia)

b Control of follicular development and corpus luteum function. Rattus norvegicus, Mus musculus, Cavia porcellus (Rodentia)

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.; Dr.biol. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR

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 (Urodela)

ILIES, A.; Dr.biol. – Inst. d'Histochim. Méd., Univ. Paris V (René Descartes), 45 rue des Sts. Pères, 75270 PARIS Cedex 06, France

a Fluor in developing teeth. Rattus spec. (Rodentia)

b Bismuth and encephalopathy before and after birth. Same species as a

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, and Homo sapiens (Primates)

ILLMENSEE, K.; Ph.D., Prof. – Lab. of Cell Differ., Dept. of Biol., Univ. of Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES, Switzerland

a Xenogeneic gene expression during differentiation. Mus musculus (Rodentia)

b Developmental potential in vivo of teratocarcinomas. Same species as a

c Cytoplasmic determination during embryogenesis. Drosophila melanogaster (Diptera)

d Microsurgical transplantation of nuclei and cells into eggs and embryos. 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

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. Same species as a, and Psammechinus miliaris (Echinoidea)

c Interaction of animal-vegetal morphogens with respect to the double gradient concept. (Echinoidea)

INGLE, R. W.; Ph.D. – Dept. of Zool., Brit. Museum (Nat. Hist.), Cromwell Rd., LONDON SW7 5BD, England

a Larval development. (Brachyura, Decapoda, Crustacea)

IRELAND, G. W.; Ph.D. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
a Cell movements, cell interactions and cell adhesion of early blastoderm cells in vitro. Gallus domesticus (Aves) (with M. R. BELLAIRS and C. D. STERN)
ISAEVA, Ms. V. V.; cand.biol.sci. – Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., USSR Acad. of Sci., VLADIVOSTOK 690022, USSR
a Modulations of embryonic skeletal muscle cell differentiation in monolayer and suspension cell cultures: studies on contact guidance, suspension myosymplasts, etc. Gallus domesticus (Aves)
b Differentiation of spiculogenic syncytia from primary mesenchyme in culture of dissociated blastomeres. Strongylocentrotus nudus, S. intermedius (Echinoidea)
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)
IVANENKOV, V. V. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Gene expression in early development; genetic control of esterase activity. Misgurnus fossilis (Teleostei)
IVANOFF-GERARD, Ms. A. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
IVANOV, E. A.; Cand.biol.sci. – Chair of Embryol., Biol. Fac., State Univ., Lenin Hills, MOSCOW 117234, USSR
a Cytological basis of early development studied in nucleo-cytoplasmic hybrids. (Teleostei)
IVANOV, V. I.; Dr., Prof. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, USSR
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., Mendeleevsky St. 5, LENINGRAD 199164, USSR
a Comparative embryology. all classes (Animalia)
IZMAIŁOW, Ms. R.; Dr. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka 52, 31-044 KRAKÓW, Poland
IZOARD, Ms. F.; 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), Homo sapiens (Primates)
b Phylogenesis of the immune response. Eisenia foetida, Lumbricus spec. (Oligochaeta; other Invertebrata)
JACKSON, J. F.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))
JACOB, H. J.; Dr.med. – Arb.gr. Exp. Embryol., Anat. Inst., Ruhr Univ., Postfach 102148, 4630 BOCHUM 1, BRD (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 (LOËS), Ms. M.; Dr.med. – Arb.gr. Exp. Embryol., Anat. Inst., Ruhr Univ., Postfach 102148, 4630 BOCHUM 1, BRD (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
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)
JAGERSTEN, 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)

JAGGI, R.; lic.phil.nat. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. Bern, Sahlistr. 8, 3012 BERN, Switzerland
a Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Xenopus laevis (Anura) (with R. WEBER and G. U. RYFFEL)
JAMES, D. A.; D.Phil. – Dept. of Pathol., Wellcome Res. Labs., Langley Court, BECKENHAM, Kent BR3 3BS, England
JAMES, Ms. T. M.; B.D.S. – Dept. of Anat., Univ. Coll., P.O. Box 78, CARDIFF CF1 1XL, Wales, UK
a Development of sphenoid (greater wing) and its venous drainage. Homo sapiens (Primates)
b Comparative study of palate development. Erinaceus europaeus (Insectivora), Rattus norvegicus (Rodentia), Homo sapiens (Primates)
JANDIERI, Ms. K. M. – Dept. of Devl. Biol., Inst. of Exp. Morphol., Acad. of Sci. of the Georgian SSR, Chiaureli St. 2, Digomi, 380059 TBILISI, USSR
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, 4400 MÜNSTER, BRD (Germany)
a Analysis of genetic mosaics of internal organs (larval and imaginal), using enzyme marker genes. Drosophila melanogaster (Diptera)
b Gynandromorph fate maps: analysis of different types of gynandromorphs. Same species as a
c Morphogenesis of Malpighian tubules (gynandromorphs, clonal analysis, position effect variegation). Same species as a
JANSEN, J.; M.D., Prof. (Emer.) – Anat. Inst., Univ. of Oslo, Karl Johansgate 47, OSLO 1, Norway
JANSSEN, P. Th.; Drs. – Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, 3512 BK 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)
JANTOŠOVIČOVÁ, 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 1, BRD (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 Characterization of ribonuclease(s); their activity(ies) during development. Same species as a
e Control of protein synthesis during development. Same species as a
JAROS, Ms. E.; Ph.D. – Musc. Dystr. Res. Labs., Newcastle Gen. Hosp., Westgate Rd., NEWCASTLE-upon-Tyne NE4 6BE, England
a Abnormal relationship between Schwann cells and axons in hereditary muscular dystrophy in vivo and in vitro. Mus musculus (Rodentia)
b Abnormal peripheral nerve regeneration in hereditary muscular dystrophy. Same species as a
c Contribution of a secondary source of Schwann cells to the total Schwann cell population of the peripheral nerves. Coturnix c. japonica, Gallus gallus (Aves), Mus musculus (Rodentia)
JARZAB, Ms. B. – Dept. of Gen. Biol., Silesian Acad. of Med., ul. K. Marksa 19, 41-808 ZABRZE 8, Poland
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. (Urodela) (with F. GASSER and V. FERRIER)
JAZDOWSKA-ZAGRODZIŃSKA, Ms. B.; Ph.D. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
a Origin of nurse chamber in egg follicles; lamellar structures in oocyte nucleus and their transformations during meiotic prophase. Non-paedogenetic spp. (Cecidomyiidae, Diptera)
JEANVOINE, Ms. G. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
JELASKA, Ms. S.; Ph.D. – Dept. of Bot., Fac. of Sci., Univ. of Zagreb, P.O.B. 933, 41001 ZAGREB, Yugoslavia
a Alternation of embryogenic potential in callus culture; karyology of embryogenic callus and in vitro regenerated plantlets. 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 Elaboration of an appropriate method for testing the teratogenic activity of drugs. Gallus domesticus (Aves), Rattus norvegicus, Mus musculus (Rodentia)
b Embryotoxic effects of normal and pathological blood serum of different species including man. Gallus domesticus (Aves)
JENKINSON, E. J.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Vincent Drive, BIRMINGHAM B15 2TJ, England
a Immunology of reproduction. Mus musculus (Rodentia), Homo sapiens (Primates)
b Biology of the trophoblast. Same species as a
c Immunology of development. Mus musculus (Rodentia)

JENSEN, P. V.; M.Sc. – Inst. of Gen. Zool., Univ. of Copenhagen, 15 Universitetsparken, 2100 COPENHAGEN Ø, Denmark
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 Development of complex ciliary structures in regenerating cells (electron microscopy). Parauro-styla weissei (Ciliata)
c Ultrastructure of surface organelles in "janus" mutant. Tetrahymena thermophila (Ciliata)
JIŘIČKA, 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 Pathol., Med. Hochschule, Ratzeburger Allee 160, 2400 LÜBECK, BRD (Germany)
a Meiosis in males. Mus spp. (Rodentia)
b Trisomic tissues. Same species as a
JOHN, H. A. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
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, BRD (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, Tritu-rus vulgaris, T. alpestris, T. helveticus (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 9JT, England
a Electron microscopy of abnormal tissues. Mus musculus (Rodentia)
b Biochemistry of achondroplastic mutants. Same species as a
c Mathematical analysis of growth process using multivariate analysis. Various spp.
d Limb growth in vitro. Same species as a
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 inter-specific chimaeras and antigenic markers. Mus musculus, Rattus spec. (Rodentia)
JOŃCZY, J.; M.Sc. – Zool. Dept., Jagellonian Univ., ul. Karasia 6, 30-060 KRAKÓW, Poland
a Oogenesis. Tyrophagus putrescentiae (Acaridae, Acari)
JONES (HOLT), Ms. E. C.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
JONES, K. W.; Ph.D. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
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 trans-cription and translation
c Location of polyadenylated messenger RNAs by in situ hybridization of poly-U(H3) and mRNA complementary cDNAs. (Insecta), Mus musculus, Rattus spec. (Rodentia), Homo sapiens and other spp. (Primates)
d Cloning of cDNA of myogenic cells in E.coli plasmid systems
JONES, R. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Changes in spermatozoa from the time of leaving the testis to egg penetration: 1. changes in the metabolism of spermatozoa in relation to the translation of energy into motility and the main-tenance of cell integrity; 2. activity of enzymes at different stages of maturation and the distri-bution of various enzymes, particularly those probably concerned with fertilization. (Mammalia)
b Methods of extending the time during which spermatozoa retain the fertilizing ability (e.g. by deep-freezing) and the effects of modifications of the male and/or female tract on fertilizing ability of inseminated spermatozoa (e.g. capacitation). (Mammalia)
c Mechanism of action of steroid hormones, at the molecular level, with respect to their control of specific gene expression in sex accessory tissues. (Mammalia)

JONGH, H. J. de; D.Sc. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, 9713 EZ 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)
JORDAN, Ms. M.; Ph.D., Prof. – Dept. of Exp. Zool., Inst. of Syst. and Exp. Zool., Polish Acad. of Sci., ul. Sławkowska 17, 31-016 KRAKÓW, Poland
a Teratogenic effects of pesticides. (Anura)
JOSEPHSEN, K.; D.D.S. – Dept. of Anat., Royal Dent. Coll., Vennelyst Blvd., 8000 ÅRHUS C, Denmark
a Incisor enamel organ: 1. morphological and funtional 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
JOTEREAU, Ms. F. J. – Lab. de Biol. du Dével., Univ. de Nantes, 2 rue de la Houssinière, 44072 NANTES Cedex, France
a Thymus ontogeny; origin, renewal, fate and functional differentiation of thymic lymphocytes in interspecific chimeras. Gallus domesticus, Coturnix c. japonica (Aves)
b Origin of bone and bone marrow cells, origin and fate of osteoclasts. (Aves)
JUBERTHIE, C.; D.Sc. – Lab. Souterrain du C.N.R.S., Équipe de Biol. Souterraine, 09200 MOULIS, Saint-Girons, France
a Développement et spermiogenèse. espèce souterraines: Speonomus spec., Duvalius spec. (Coleoptera)
b Influence des facteurs abiotiques (température) sur le développement embryonnaire. Mêmes espèces comme a
JUBERTHIE-JUPEAU, Ms. L.; D.Sc. – Lab. Souterrain du C.N.R.S., Équipe de Biol. Souterraine, 09200 MOULIS, Saint-Girons, France
a Contrôle endocrine de la mue. Hanseniella ivorensis (Symphyla)
b Spermiogenèse et cytogénétique. espèces souterraines (Bathysciinae, Coleoptera)
JUCHAULT, P.; Dr. – Lab. de Biol. Anim. (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. Mêmes espèces comme a
c Écophysiologie de la reproduction. Mêmes espèces comme a
JUMAH, H. J.; B.Sc. – Zool. Dept., Univ. of Liverpool, P.O. Box 147, LIVERPOOL L69 3BX, England
a Morphogenesis and early development (cell aggregation, electron microscopy). Xenopus laevis (Anura)
JUNERA, Ms. H. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e ètage, 4 place Jussieu, 75230 PARIS Cedex 05, France
a Electrophoresis and immunochemistry of a female specific protein: vitellogenin. Orchestia gammarellus (Amphipoda, Crustacea) (with Y. CROISILLE (Nogent) and J. J. MEUSY)
JUNG, E.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst. I: Morphol. und Entw.biol., Röntgenring 10, 8700 WÜRZBURG, BRD (Germany)
a Pattern formation studied in unilateral double abdomina caused by temporary constrictions. Bruchidius obtectus (Coleoptera)
b The gap phenomenon in the embryo (pattern formation). Pimpla turionellae (Hymenoptera)
JURA, Cz.; D.Sc. – Zool. Dept., Jagellonian Univ., ul. Karasia 6, 30-060 KRAKÓW, Poland
a Early developmental stages. Tetrodontophora 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, UK
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)
JURD, R. D.; Ph.D. – Dept. of Biol., Univ. of Essex, Wivenhoe Park, COLCHESTER, Essex CO4 3SQ, England
a Immunoglobulin and antibody production in animals thymectomised as young tadpoles; ontogenetic emergence of immunity. Xenopus laevis (Anura)
b Ontogenetic emergence of the T and B cell arms of the immune response. Lacerta viridis (Lacertilia)
KACZANOWSKA (DOBRZAŃSKA), Ms. J.; D.Sc. – Dept. of Cytol., Inst. of Zool., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
a Long-distance positioning of the competence for contractile vacuole development; fine positioning of a given contractile vacuole, serving as a nucleating center for ciliary basal bodies; dual aspects of mechanisms of positioning of organelles (electron microscopy). Chilodonella steini (Ciliata)
b Cytogeometrical rules of pattern formation in dividers. Same species as a
KACZANOWSKI, A.; D.Sc. – Dept. of Cytol., Inst. of Zool., Warsaw Univ., Krak. Przedmieście 26/28, 00927/1 WARSZAWA, Poland
a Intraclonal conjugation (selfing) leads to either 1. normal exconjugants with immaturity period;

or 2. exconjugants retaining old macronucleus, ready for a second conjugation and lacking an immaturity period. Chilodonella steini (Ciliata)
b Changes in mating type expression induced by alternating dark and light periods. Same species as a

KAEHN, K.; Dr.rer.nat. – Lehrst. für Anat. I, Ruhr-Univ., Postfach 102148, 4630 BOCHUM 1, BRD (Germany)
a Myogenesis studied with fluorescent antibodies directed against proteins of the contractile apparatus. Gallus gallus (Aves)
b Surface antigens specific for certain embryonic cell types. Same species as a

KAFIANI, C. A. – Inst. of Molec. Biol., USSR Acad. of Sci., Vavilov St. 32, MOSCOW 117312, USSR

KAH, O.; Dr.3e Cycle – Ctr. de Morphol. Exp. du C.N.R.S., Av. des Facultés, 33405 TALENCE, France
a Régulation neuroendocrinienne des fonctions de l'hypophyse. Gambusia spec. (Teleostei)

KAHN, A.; M.D., D.Sc. – INSERM U 129, PARIS, France
a Transplantation of human embryonic tumors to the nude mouse: 1. host-tumor interaction studied with specific isozymes; 2. differentiation of embryonic tumors during successive transplantations with respect to the appearance or disappearance of certain biochemical markers. Mus musculus (Rodentia), Homo sapiens (Primates) (with M. F. ROUSSEAU-MERCK)

KAKEBEEKE, P. I. J.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands
a Chemotaxis and cell aggregation. Dictyostelium spec. (Acrasiales)

KALETA, Ms. E. W.; Ph.D. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., ul. Karasia 6, 30-060 KRAKÓW, Poland
a Evaluation of fertilizing ability of spermatozoa from inbred and crossbred animals in competitive fertilization in vivo and in vitro. 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

KÁLMÁN, G.; Ph.M. – Dept. of Anat., Univ. Med. School, 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)

KALUZA, J. S.; M.D. – Dept. of Neuropathol., Inst. of Pharmacol., Polish Acad. of Sci., Botanicznastr. 3, KRAKÓW, Poland

KAMLER, Ms. E.; Dr.habil. – 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, USSR
a Comparative study of testis development in the embryo. Various spp. (Passeres, Aves)

KANTOROVA, Ms. V. I.; Dr.biol. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Sources of cells and mechanism of regeneration in skull vault bone regeneration in adults. Oryctolagus cuniculus (Lagomorpha), Canis familiaris (Carnivora)
b Ultrastructure of intercellular interaction in regeneration

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. de Biol. Méd., Univ. L.Pasteur, 11 Rue Humann, 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., 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
a Physiological role of alpha-fetoprotein in embryo and fetus. Mus musculus, Rattus norvegicus (Rodentia), Sus scrofa domesticus (Artiodactyla)
b Physiological role of protease inhibitors and lipoproteins in fetus and neonate. Sus scrofa domesticus (Artiodactyla)

KARLSSON, L.; Fil.kand. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Effects of pollutants on reproduction. (Teleostei)
b A disease among fry. Salmo salar (Teleostei)

KASSNER, J.; Ph.D. – Inst. of Zool., Univ. of Wrocław, ul.Sienkiewicza 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, USSR
a Reproductive cycle. marine spp. (Bivalvia; Echinoidea; Asteroidea)
b Larval development. (Asteroidea)

KATSKA, Ms. L.; M.Sc. – Dept. of Anim. Reprod. and A.I., Inst. of Zootechn., 32-083 BALICE/Kraków, Poland
a Culture in vitro of immature oocytes (aceto-orcein staining); transplantation and freezing of cultured oocytes. Ovis aries, Bos taurus (Artiodactyla)

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., Prof. – Anat. Inst., Abt. für Neuroanat., Univ. Krankenhaus Eppendorf, Martinistr. 52, 2 HAMBURG 20, BRD (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, USSR
a Pattern formation in aggregates of imaginal disc cells. Drosophila melanogaster (Diptera)
b Pleiotropy of homoeotic genes. Same species as a

KAY, R. R.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
a Control of cell differentiation in vitro: roles of cyclic AMP, NH3 and factors specific to the stalk and spore pathways; isolation and characterisation of developmental mutants. Dictyostelium discoideum (Acrasiales)

KEDINGER, Ms. M.; D.Sc. – Unité de Rech. No.61, INSERM, Av. Molière, 67200 STRASBOURG/ Hautepierre, France
a Hormonal control of enzymic differentiation during intestinal development. (Rodentia)

KEITH, J. M.; B.Sc.(Hons.) – 131 Sevenoaks Way, St.Paul's Cray, ORPINGTON, Kent, England
a Possible role of neural crest in craniofacial malformations. Gallus domesticus (Aves), Mus musculus (Rodentia)
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)
d Environmental influences on characteristics of smooth muscle cells from the aorta of juveniles in vitro. Rattus norvegicus (Rodentia)

KELLOKUMPU-LEHTINEN, Ms. P. L. I.; Dr.med. – Inst. of Biomed., Dept. of Anat., Univ. of Turku, Kiinamyllynkatu 10, 20520 TURKU 52, Finland
a Development of embryonic prostate and gonads. Homo sapiens (Primates)

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, UK
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, Ophlitaspongia 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, USSR

KHRUSHCHOV, N. G.; Dr.biol., Prof. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Differentiation of haemopoietic and connective tissue cells. Mus musculus, Rattus norvegicus, Mesocricetus auratus (Rodentia)

KIEŁBÓWNA, Ms. L.; Ph.D. – Inst. of Zool., Univ. of Wrocław, ul. Sienkiewicza 21, 50-335 WROCŁAW, Poland
a Myogenesis. Xenopus laevis, Bombina variegata (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 X, 38041 GRENOBLE Cedex, France
a Role of somitic mesoderm in the initiation of limb development. Gallus domesticus (Aves)
b Somitic origin of limb musculature. Same species as a, and Coturnix c. japonica (Aves)

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. (Desmidiales, Chlorophyceae)

KILARSKI, W.; Ph.D. – Dept. of Comp. Anat., Jagellonian Univ., ul. M. Karasia 6, 30-060 KRAKÓW, Poland
a Differences in cell surface interactions with viruses
b Development of myofibrils and sarcomeres: role of z-line material as initiator for organisation of sarcomeres (electron microscopy). Salmo spec. (Teleostei), (Urodela), Oryctolagus cuniculus (Lagomorpha)

KIMBLE, Ms. J.; Ph.D. – M.R.C. Lab. of Molec. Biol., Hills Rd., CAMBRIDGE CB2 2QH, England
a Mechanisms of cell determination: cell lineage analysis of simple structures coupled with laser ablation and analysis of mutants that alter the development of these structures. Caenorhabditis elegans (Nematoda)

KINČURASHVILI, Ms. N. T. – Dept. of Anim. Embryol., Inst. of Zool., Acad. of Sci. of the Georgian SSR, 31 Chavchavadze Ave., TBILISI 380030, USSR
a Comparative study of ovary differentiation in the embryo. Various spp. (Passeres, Aves)

KINDAHL, Ms. 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)

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 Regulation of ciliary pattern during regulation of cellular form in different fragments. Dileptus spec. (Ciliata)

KINSKY, Ms. I.; Dr.med. – Anat. Inst., Abt. für Exp. Biol., Univ. Bonn, Nussallee 10, 5300 BONN, BRD (Germany)
a Role of mesonephros during development and regression in the origin of and the contribution to somatic cells in the male and female gonad. Oryctolagus cuniculus (Lagomorpha)

KIORTSIS, V.; D.Sc., Prof. – Zool. Lab. and Museum, Univ. of Athens, Panepistimiopolis (Kouponia), ATHENS (621), Greece

KIRSCHBAUM, F.; Dr.rer.nat. – Lehrst. Exp. Morphol., Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, BRD (Germany)
a Experimental control of gonadal renewal and regression by environmental factors (conductivity, water level, pH, imitation of rain). Pollimyrus isidori (Mormyridae, Teleostei)
b Ontogeny of electric organs in weakly electric fish (light and electron microscopy). Same species as a, and Eigenmannia virescens (Gymnotoidei, Teleostei)

KISS, I.; Ph.D. – Inst. of Genet., Biol. Res. Ctr., Hung. Acad. of Sci., P.O. Box 521, 6701 SZEGED, Hungary
a Genetics of metamorphosis with the aid of stage-specific (non-pupariating) lethal mutants. Drosophila melanogaster (Diptera)
b Genetic and developmental analysis of the 2B region of the X-chromosome including the ecdysone-specific puff 2B5-6. Same species as a

KISTLER, G. S.; M.D. – Cell Biol. 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. Karasia 6, 30-060 KRAKÓW, Poland
a Differentiation of primordial germ cells, mesoderm cells and gonad formation (electron microscopy). Tetrodontophora bielanensis (Collembola)
b Sexual differentiation in postembryonic life. Same species as a
c Cleavage furrow formation and blastoderm formation. Same species as a
d Role of cytoskeleton in directive transport of cytoplasm, including pigment, and in establishment of dorso-ventrality in the egg. Xenopus laevis (Anura) (with G. A. UBBELS, Utrecht and K. RZEHAK, Kraków)

KLEINE-SCHONNEFELD, H.; Dr.rer.nat. – Lehrst. Entw. physiol., Inst. für Biol. III, Univ., Morgenstelle 28, 7400 TÜBINGEN 1, BRD (Germany)
a Determination of the embryonic dorso-ventral axis; development of ovaries and follicles; differentiation of the chorion (histology, autoradiography, ovary extirpation, in vitro culture). Musca domestica, Calliphora erythrocephala, Sarcophaga bullata, Lucilia caesar (Diptera)

KLEINEBRECHT, J.; Dr.rer.nat. – Inst. für Humangenet. der Univ., Paul-Ehrlich Str. 41, 6 FRANKFURT/Main 70, BRD (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, J. PAUNOVIĆ and M. PERUZOVIĆ)

KLEVEZAL, Ms. G. A.; cand.biol. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Growth. (Vertebrata)

KLOC-STEPKOWSKA, Ms. M.; Ph.D. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
a Extrachromosomal DNA and its role in oogenesis. (Staphylinidae, Coleoptera)
b Synchrony and polarity of oogonial divisions in larva and pupa; differentiation of oocyte-nurse cell complexes. Creophilus maxillosus (Staphylinidae, Coleoptera)

KNESE, K.-H.; Dr.med., Dr.phil., Prof. – Steinwaldstr. 12, 7000 STUTTGART 70, BRD (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, UK

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 scrofa 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 scrofa 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, BRD (Germany)

a Regulation of information transfer from DNA to protein. Xenopus laevis (Anura), Gallus gallus (Aves)

b Sequence structure of nuclear globin precursor RNA

c Gene structure (restriction analysis, DNA recombination by cloning)

KNOOP, B.; Dr. – Bot. Inst. der Univ., Im Neuenheimer Feld 360, 6900 HEIDELBERG, BRD (Germany)

a Development of protonema, including induction of regeneration, primary receptors for cytokinins and isolation of an endogenous morphoregulator. Funaria hygrometrica (Musci)

KNUDSEN, P. A.; M.D., D.D.S., Prof. – Dept. of Anat., Royal Dent. Coll., Vennelyst Blvd., 8000 ARHUS 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, BRD (Germany)

a Isolation and characterization of ribonucleoprotein particles from testes. Drosophila hydei (Diptera)

KNYIHÁR, Ms. E.; M.D. – Dept. of Anat., Univ. Med. School, 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)

b Development of neurons and synapses in embryonic spinal cord. Macaca mulatta (Primates) (with B. CSILLIK)

KOCHER-BECKER, Ms. U.; Dr.rer.nat. – Embryonalpharmakol., Freie Univ., Thielallee 69/73, 1000 BERLIN 33, BRD (Germany)

KOČOVA (PECHÁČKOVÁ), Ms. J.; Dr.med., C.Sc. – Inst. of Histol. and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEŇ, Czechoslovakia

a The development of the venous and lymphatic system. Homo sapiens and others (Mammalia)

KOEBKE, J.; Dr.rer.nat. – Anat. Inst., Med. Fak., Univ. Kiel, Olshausen Str. 40–60, 2300 KIEL, BRD (Germany)

a Differentiation capacity of the marginal zone in early development. Ambystoma mexicanum (Urodela)

b Application of LiCl upon very early developmental stages. Same species as a

c Development of the hyoid. Homo sapiens (Primates)

KOHLER, F. – Lab. d'Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

KOHLER, H. J. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 ERLANGEN, BRD (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

d Egg activation with various agents and subsequent fertilization. Same species as a

e Maturation and fertilization in vitro. Homo sapiens (Primates)

KONDO, M.; Ph.D., D.Sc., Prof. – 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., Kaiserstr. 63, Postbus 9516, 2300 RA 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., USSR Acad. of Sci., Gubkin St. 3, 117809 GSP–1, MOSCOW B–333, USSR
a Developmental study of mutational effect of genes which lead to eye abnormalities. Mus musculus (Rodentia)
b Genetic control of cell proliferation and differentiation. Same species as a
c Gene interaction in development. Same species as a
d Gene expression in experimental chimaeras. Same species as a

KOOLMAN, J.; Ph.D. – Physiol.-Chem. Inst. I, Univ. Marburg, Deutschhausstr. 1–2, 3550 MARBURG, BRD (Germany)
a Regulation of the metabolism and inactivation of ecdysone. Calliphora erythrocephala (Diptera)
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, BRD (Germany)
a Regulation of cell size in different genetical strains. Acetabularia mediterranea (Chlorophyceae)
b Translocation of cytoplasmic compartments: significance for morphogenesis (quantitative microcinematography). 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)
c Mitotic activity and structure of hyperplastic epidermis during regeneration after burning. Same species as b

KORDYLEWSKI, L.; D.Sc. – Dept. of Comp. Anat., Jagellonian Univ., ul. M. Karasia 6, 30-060 KRAKÓW, Poland
a Early development of myomeres and their innervation. Xenopus laevis (Anura)
b Differentiation of intestinal smooth muscle. Same species as a
c Ultrastructure (TEM and SEM) of the cells absorbing melanosomes in larval cerebrospinal fluid. (Anura)

KORKIA, 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, USSR
a Ontogenesis of transplantation immunity. Lacerta dahli, L. portschinskii, L. rudis, L. valentini, L. caucasica (Lacertilia)

KORNELIUSSEN, H.; M.D. – Anat. Inst., Univ. of Oslo, Karl Johansgt. 47, OSLO 1, Norway

KÖRNER, H. K.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, BRD (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 Molec. Immunogenet., Inst. of Molec. Genet., Kurchatov Sq., MOSCOW 123182, USSR
a Developmental genetics. Drosophila melanogaster, D. virilis (Diptera)
b Genetic regulation of immune response. Mus musculus (Rodentia)

KOROTKOVA, Ms. G. P.; Dr.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR
a Comparative study of regeneration, asexual reproduction, and somatic embryogenesis (theoretical study)
b Development of embryos cultivated in vitro. Halisarca dujardini (Porifera)
c Genesis and evolution of ontogenesis (theoretical study)

KORT, E. J. M. de; Dr. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N. 21, 6500 HB NIJMEGEN, Netherlands
a Development of the spinal cord. Xenopus laevis (Anura)

KOŚCIELSKA, Ms. M. K.; Ph.D. – Dept. of Anim. Syst. and Zoogeogr., Zool. Inst., Wrocław Univ., Sienkiewicza 21, 50–335 WROCŁAW, Poland
a Early developmental stages, gastrulation. Ageniaspis spec., Monodontomerus spec., Dahlbominus 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; Apterygota, 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, USSR

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, USSR
a Analysis of nuclear proteins synthesized during oogenesis and early embryogenesis (microinjections of labelled precursors, autoradiography). Misgurnus fossilis (Teleostei)

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, USSR
a Biosynthesis of mitochondria during oogenesis and early development. (with L. R. PALMBACH)

KOZIK, M.; M.D., Prof. – Inst. of Neurol. and Sens. Organs, Med. Acad., 49 Przybyszewskiego St., 60–355 POZNAŃ, 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. M. Karasia 6, 30–060 KRAKÓW, Poland
a Early development of muscle fibres. Salmo trutta (Teleostei)

KRÁL, B.; RNDr. – Dept. of Morphol., Inst. of Vertebr. Zool., Czechosl. Acad. of Sci., Květná 8, 60365 BRNO, Czechoslovakia
a Comparative study of chromosomes. (Insectivora; Rodentia)

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 OSTERMUNDIGENBE, 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
a Electron microscopy of cytodifferentiation, synaptic contacts and catecholamine production in the adrenal medulla and in para-aortic chromaffin tissue. Rattus norvegicus (Rodentia), Homo sapiens (Primates)
b Electron microscopy and histochemistry of embryonic and foetal ovaries. Homo sapiens (Primates)

KRAUSE, G.; Dr.phil., Prof. (Emer.) – Zool. Inst. der Univ., Röntgenring 10, 87 WÜRZBURG, BRD (Germany)

KREDIET, P.; M.V.D. – Dept. of Anat. and Embryol., Med. Fac., Erasmus Univ., P.O.Box 1738, ROTTERDAM 3002, Netherlands

KŘEN, V.; MUDr. – Dept. of Biol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia
a Relationship between genetically linked morphogenetic loci (polydactyly-luxate syndrome: PLS) and histocompatibility loci (H-5); continued genetic isolation of the determining gene (Ix) in different inbred strains. Rattus norvegicus (Rodentia)
b Phenotypic interaction of the genetically independent genes determining leg malformation syndromes PL and DPL (dominant-polydactyly-luxate). Same species as a (with B. VLASTA)

KRESS, Ms. A.; Ph.D. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland
a Oogenesis. (Amphibia; Mammalia)
b Variability of egg capsule volumes during development. (Opisthobranchia, Gastropoda)

KRITCHINSKAYA, Ms. E. B.; Cand.biol.sci. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR
a Asexual reproduction, regeneration, and somatic embryogenesis. Dugesia tigrina, D. lugubris (Turbellaria)

KRMPOTIĆ-NEMANIĆ, Ms. J.; Prof. – Inst. of Anat. "Drago Perović", Fac. of Med., Univ. of Zagreb, Šalata 11, 41001 ZAGREB, Yugoslavia

KROEGER, H.; Dr.rer.nat., Prof. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, BRD (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, USSR
a Larval development and metamorphosis. (Echinoidea)

KRYVI, H.; Dr.phil. – Inst. of Anat., Univ. of Bergen, Årstadvei 19, 5000 BERGEN, Norway
a Ontogenesis of trunk muscles (autoradiography, electron microscopy, histochemistry). Etmopterus spec., Scyliorhinus spec. (Elasmobranchii)
b Development of the swimming muscles (light and electron microscopy). Acipenser stellatus (Chondrostei)

KRZANOWSKA, Ms. H.; Ph.D. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., ul. Karasia 6, 30–060 KRAKÓW, Poland
a Studies of heterosis: sperm characters, fertilization. Mus musculus (Rodentia)

KRZYSZTOFOWICZ, Ms. A.; D.Sc. – Zool. Dept., Jagellonian Univ., ul. Karasia 6, 30–060 KRAKÓW, Poland
a Oogenesis and embryonic development. Tetrodontophora bielanensis (Collembola)

KUBLI, E.; Dr.phil. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 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
KUDOKOTSEV, V. P.; Dr. – Dept. of Biol., Kharkov State Univ., Dzerjinsky Square 4, KHARKOV, USSR
KUHN, H.-J.; Dr.med., Prof. – Anat. Inst. der Univ., Kreuzbergring 36, 34 GÖTTINGEN, BRD (Germany)
KÜHNEL, W.; Dr.med., o.Prof. – Dept. of Anat., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (Germany)
a Structure and function of the foetal membranes (morphology, histochemistry). Oryctolagus cuniculus (Lagomorpha)
b Morphology and histochemistry of the female genital tract and of male accessory genital glands during development. Same species as a
KULIKOVA, Ms. V. A. – Lab. of Embryol., Inst. of Marine Biol., Far East Sci. Ctr., Acad. of Sci. of the USSR, VLADIVOSTOK 690022, USSR
a Larval development. Marine spp. (Bivalvia)
KUNZ, W.; Dr., Prof. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, BRD (Germany)
KURAIS, A. R.; M.Sc. – Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O. Box 147, LIVERPOOL L69 3BX, England
a Morphogenesis and early development (cell aggregation, cell sorting, electron microscopy). Xenopus laevis (Anura)
KURRAT, H.-J.; Dr.rer.nat. – Anat. Inst. der Univ., Lindenburg, 5 KÖLN 41, BRD (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, USSR
a Comparative study of follicular epithelium during postembryonic development. Various spp. (Passeres, Aves)
KÜTHE, H. W.; Dr.rer.nat., Prof. – Fachber. Biol. der Univ. (Zool.), Lahnberge, Postfach 1929, 3550 MARBURG 1, BRD (Germany)
a Protein and amino acid metabolism in development. Dermestes frischi (Coleoptera), Dysdercus intermedius (Heteroptera)
KUZIN, B. A.; Cand.biol.sci. – Lab. of Molec. Immunogenet., Inst. of Molec. Genet., Kurchatov Sq., MOSCOW 123182, USSR
a Developmental genetics. Drosophila melanogaster, D. virilis (Diptera)
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, 1092 AD AMSTERDAM-O., Netherlands
LAAT, S. W. de; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 P. T. v. d. SAAG, J. BOONSTRA, W. H. MOOLENAAR, C. L. MUMMERY, S. A. NELEMANS and E. J. J. v. ZOELEN)
LABAT-ROBERT, Ms. J. – Lab. de Biochim. du Tissu Conjonct., Équipe de Rech. du C.N.R.S., Univ. Paris XII (Val-de-Marne), 6 Rue du Gén. Sarrail, 94000 CRÉTEIL, France
a Role of fibronectine (large, external, transformation-sensitive (LETS) protein, CIG) in morphogenesis and differentiation. (Demospongiae, Porifera), Mus musculus (Rodentia), Homo sapiens (Primates)
LABORDUS, V.; Ph.D. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH 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 (Paris-Sud), 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 waltl (Urodela)
b Use of ionizing radiations in the treatment of eggs and embryos. Same species as a
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. waltl (Urodela)

LAFARGA, M. A. – Serv. de Embriol. Exp., Dept. of Anat., Fac. de Med., SANTANDER, Spain
a Postnatal neurogenesis in hypothalamus and cerebellum (light and electron microscopy). Oryctolagus cuniculus (Lagomorpha), Rattus spec. (Rodentia)

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

LAING, N. G.; B.Sc. – Dept. of Physiol., Univ. of Edinburgh Med. School, Teviot Place, EDINBURGH EH8 9AG, Scotland, UK
a Control of motoneurone numbers in the lumbar enlargement of the embryo; 1. interaction of partial amputation with alfa-bungarotoxin paralysis; 2. interaction of alpha-bungarotoxin with direct stimulation of hindlimb. Gallus gallus (Aves)

LAKSHMI, Ms. M. S.; Ph.D. – Canc. Res. Unit, Univ. Dept. of Clin. Biochem., Royal Victoria Infirmary, NEWCASTLE-upon-Tyne NE1 4LP, 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 Marine de Villefranche-sur-Mer, Univ. de Paris VI, 06230 VILLEFRANCE 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, 1092 AD AMSTERDAM-O., Netherlands

LANDAUER, W. † Ph.D., Prof. – Dept. of Human Genet. and Biometry, Univ. Coll. London, LONDON NW1 2HE, England

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.; D.Sc. – Lab. de Zool., Fac. des Sci., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
a Morphology of normal and experimentally produced cell degeneration in the axial organs. Gallus gallus (Aves)
b Cytology and biochemistry of tail bud regression. Same species as a

LANSDOWN, A. B. G.; Ph.D. – Dept. of Pathol., Wyeth Labs. Ltd., TAPLOW, Berks., 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)

LARDÉ, Ms. P.; Dr.méd. – Lab. d'Embryol., Univ. de Nancy I, B.P.1080, 54019 NANCY Cedex, France

LARINK, O.; Dr. – Zool. Inst. der Techn. Univ., Pockelstr. 10a, 3300 BRAUNSCHWEIG, BRD (Germany)

LA SPINA (D'ANNA), Ms. R.; D.Sc. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Fine structure of unfertilized eggs and egg fragments. Ascidia malaca, Phallusia mamillata (Ascidiacea)
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, BRD (Germany)
a Characterization of RNA and RNA synthesis, especially in testis development; correlation to gene products, fertility and regulation. Drosophila hydei (Diptera)

LASSALLE, B.; D.Sc. – Lab. de Morphogen. Anim., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France
a Surface potential during growth and regeneration. (Annelida; Amphibia)
b Factors of regenerative morphogenesis (nervous system, tissue contacts)

LASSEGUE, Ms. M.; Dr.biol.anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Genetics of histocompatibility: in vivo and in vitro incompatibility reactions, ontogeny, molecular basis, genetic determinations and relations. Eisenia foetida (Oligochaeta), (Sipuncula)

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

LAUGÉ, Ms. G.; D.Sc. – Lab. d'Entomol. et d'Ecophysiol. Exp., Univ. de Paris XI (Paris-Sud), Bât. 446, 91405 ORSAY, France

LAURILA, P. – Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Cytoskeleton in normal and malignant cells and in differentiated cells. (with S. STENMAN and I. VIRTANEN)

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, morphogenèse normale, anomalies spontanées (histochimie, microchirurgie, cytologie ultrastructurale, tératogenèse expérimentale). Pleurodeles waltl (Urodela)

LAWRENCE, A. J.; Ph.D. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G12 8QQ, Scotland, UK

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)

b Covalent activation of phospholipases

LAWRENCE, P. A.; Ph.D. – M.R.C. Lab. of Molec. Biol., Hills Rd., CAMBRIDGE CB2 2QH, England

a Compartments in insect development. Drosophila melanogaster (Diptera)

b Developmental genetics of homoeotic mutants. Same species as a

LAWSON, Ms. K. A.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands

a Tissue interaction during growth, morphogenesis and differentiation of lung and salivary gland in vitro. Mus musculus, Rattus norvegicus (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 Role of steroids and gonadotropins at different stages of spermatogenesis. Mus musculus (Rodentia)

LEAKEY, J. E. A.; Ph.D. – Dept. of Biochem., Univ. of Dundee, DUNDEE DD1 4HN, Scotland, UK

a Changes in endocrinological factors and detoxicating enzymes during the perinatal period; endocrinological, xenobiotic and dietary factors affecting bilirubin conjugation and mixed function oxidase activity in the neonate. Gallus domesticus (Aves), Rattus norvegicus and other spp. (Rodentia), Oryctolagus cuniculus (Lagomorpha), (Primates)

b Steroid hormone and drug interactions with hepatic chromatin in the perinatal period. 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, 6525 ED 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, 1095 KJ AMSTERDAM, Netherlands

a Interaction with hormones during maturation and adaptation of the nervous system (immunoelectron microscopy). 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

LEFRESNE, 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 (Urodela)

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)

b Developmental morphology. Viscum album (Loranthaceae)

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

LEGHISSA, S.; Ph.D., Prof. – Ist. di Anat. Comp., Univ. di Bologna, Via Belmeloro 8, 40126 BOLOGNA, Italy

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, morphogenèse et cytophysiologie du trophoblaste intra-artériel. Rattus norvegicus (Rodentia)
b Effets de l'ovariectomie tardive sur l'ultrastructure et la fonction endocrine du placenta. Même espèce comme a
c Progestérone plasmatique et tissulaire et activité steroidogène du placenta après ovariectomie; effets sur la survie foetale. Même espèce comme a
d Analyse expérimentale du déterminisme hormonal de la parturition. Même espèce comme a

LEGRAND (HAMELIN), Ms. E.; Dr., Prof. – Lab. de Biol. Anim. (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 Biol. Anim. (Physiol. et Génét. des Crustacés), Univ. de Poitiers, 40 av. du Recteur-Pineau, 86022 POITIERS Cedex, France
a Contrôle génétique, epigénétique 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
c Absence of symbionts (bacteroids) in the egg and of the hybrid genotype as causes of sterility (developmental arrest at early cleavage). Porcellio dilatatus petiti x P.d. dilatatus (Isopoda, Crustacea)

LEGRELE, C.; Dr.3e cycle – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France

LEHMANN, K.; Dr.rer.nat. – Lehrst. Exp. Morphol., Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, BRD (Germany)
a Structural and biochemical aspects of flight muscle protein and z-disc development during metamorphosis. Ephestia kühniella, Galleria mellonella, Manduca sexta (Lepidoptera)

LEHTO, V. P. – Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Development of connective tissue components in foetal dermis. (with S. STENMAN and E. LINDER)

LEHTONEN, E. I.; M.D. – Lab. of Exp. Embryol., Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with L. O. SAXÉN, S. NORDLING, P. EKBLOM and J. SALONEN)
b Morphogenetic movements during cleavage. Mus musculus (Rodentia) (with C. F. GRAHAM, Univ. of Oxford)

LEIBENGUTH, F.; Dr.rer.nat., Prof. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, BRD (Germany)
a Mechanisms controlling ontogeny and tissue distribution of isoenzyme patterns by differential allele activity. Ephestia (= 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)
b Experiments with interspecific chimeras on morphogenesis of vagus nerve. Same species as a

LEMEŽ, L.; MUDr., Doc. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 000 PRAHA 2, Czechoslovakia
a Experimental topogenesis and teratology of the pneumogastric system. Gallus domesticus (Aves)
b Thrombocyte development. 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 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, BRD (Germany)
a Architecture of 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 drug induced renal cystic disease. Rattus norvegicus (Rodentia)

LENICQUE, P. M.; D.Sc. – Lab. de Biol. des Invert. Marins et Malacol., Museum Natl. d'Hist. Nat., 57 rue Cuvier, 75005 PARIS, France

LENZ, W.; Dr.med., Prof. – Inst. für Humangenet., Westf. Wilhelms Univ., Vesaliusweg 12–14, 4400 MÜNSTER, BRD (Germany)
a Etiological classification of skeletal malformations. Homo sapiens (Primates)

LEONE, V.; M.D. – Cat. di Embriol. e Morfol. Sperim., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy

LE PENNEC, M. L. M.; Dr.3e Cycle – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France

LEPORI, N. G.; Prof. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy

a Fission. Dugesia gonocephala s.l. (Turbellaria)

LE ROUX, A.; Lic.ès Sci. – Stat. Biol. de Bailleron, Séné, Univ. de Rennes I, 56000 VANNES, France

a Anatomy and histology of the Y gland during larval life, in relation with mitotic activity in epidermic tissues (digestive tract and pereiopods); its bearing on moulting and exuviation. Pisidia (= Porcellana) longicornis (Anomura, Decapoda, Crustacea)

b Organogenesis and function of the mandibular organ in larva and early adult. Same species as a

LE ROUX, Ms. S.; D.E.A. – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France

LESOT, H. – Inst. de Biol. Méd., Univ. L.Pasteur, 11 Rue Humann, 67085 STRASBOURG, France

a Analysis of collagen synthesized by tooth germs

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)

LEUBA, Ms. G.; D.Sc.biol. – Div. Autonome de Neuropathol., Univ. de Lausanne, 1011 LAUSANNE, Switzerland

a Changes during development and ageing in the genome integrity of the cerebral cortex. Mus musculus (Rodentia) (with S. P. MODAK and M. C. CORREA)

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 Differentiative and morphogenetic capacities of germ layers; transplantation of isolated germ layers to extrauterine sites. Rattus norvegicus (Rodentia) (with A. ŠVAGER (Inst. of Histol. and Embryol.) and N. ŠKREB)

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

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.; D.Sc. – 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 waltl (Urodela)

LIEBRICH, W.; Dr.rer.nat. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, BRD (Germany)

a Morphology and mechanisms of spermatogenesis in organ culture. Drosophila melanogaster, D. hydei (Diptera)

LIERSE, W.; Dr.med., Prof. – Abt. Neuroanat., Anat. Inst. der Univ., Martinistrasse 52, 2 HAMBURG 20, BRD (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, 1092 AD AMSTERDAM-O., Netherlands

LINDE, A.; DDS, Odont.Dr. – Lab. of Oral Biol., Dept. of Histol., Univ. of Göteborg, Fack, 400 33 GÖTEBORG 33, Sweden

a Calcification, especially dentinogenesis in incisor: 1. characteristics, synthesis and degradation of proteins, glycoproteins, proteoglycans and phosphoprotein in dentin, enamel and bone; 2. separation, characterization and localization of alkaline phosphatases in odontoblasts and osteoblasts; 3. changes in odontoblast metabolism (energy-, synthetic) in disturbed calcification due to a low Ca, vit.D free diet. Rattus spec. (Rodentia)

LINDENMAYER, A.; Ph.D., Prof. – Theor. Biol. Group, State Univ. of Utrecht, Padualaan 8, Postbus 80 059, 3508 TB 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) (with C. HARTE (Köln))

e Graph- and map-generating systems as models of multidimensional development, particularly of cell layers in leaf epidermis. (Musci), Selaginella spec. (Lycopodiophyta)

LINDER, E. – Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Development of connective tissue components in foetal dermis. (with S. STENMAN and V. P. LEHTO)
LINK, Ms. B.; Dipl.biol. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands
a Ultrastructure of spermiogenesis. Drosophila hydei (Diptera)
LINSKENS, H. F.; Dr., Prof. – Sect. Molec. Devl. Biol., Dept. of Bot., 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., Salpiglossis spec., Nicotiana spec. (Solanaceae), Lilium spec. (Liliaceae)
b Induction of meiotic division. Ulva spec. (Chlorophyceae), Lilium spec. (Liliaceae), Saccharomyces spec. (Ascomycetes)
c Dormancy. Agrostemma githago (Caryophyllaceae)
LIOSNER, L. D.; Dr.biol., Prof. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, USSR
LISSIA (FRAU), Ms. A. M.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy
no work on developmental biology in progress
LITTLEFIELD, Ms. C. L.; Ph.D. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
a Masculinization of females in heterosexual grafts. Hydra carnea (Hydrozoa)
b Stability and instability of sexuality (gonochorism vs. hermaphroditism) studied by genetic analysis of species hybrids. (Hydrozoa)
c Effect of sexuality on asexual reproduction. Same species as a
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, BRD (Germany)
a Cytochemistry and biochemistry of gene activation during gastrulation and neurulation, especially gene amplification and nucleic acid synthesis. Triturus vulgaris (Urodela)
b DNA, RNA and protein synthesis in the cell cycle of embryonic cells. Same species as a
LOHS-SCHARDIN, Ms. M.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG, BRD (Germany)
a Fate mapping of the blastoderm by UV laser microbeam. Drosophila melanogaster (Diptera)
b Mutants affecting patterning in early embryogenesis. 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
LÖNNING (VADER), S.; Dr.phil., Prof. – Inst. of Biol. and Geol., Univ. of Tromsö, P.O. Box 790, 9001 TROMSÖ, Norway
a Fertilization and early development (experimental study, electron microscopy). (Echinoidea; Teleostei)
b Effect of oil pollution on early development. (Echinoidea; Teleostei)
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 (Urodela)
LOPASHOV, G. V.; Dr.biol., Prof. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a 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)
b Inductive transformation of iris and pigment epithelium into lens tissue by agents from lens epithelium. Rana temporaria (Anura) (with O. A. HOPERSKAYA)
c Artificial transformation of nucleo-cytoplasmic fragments of muscle cells under the action of living retina. Same species as b
d Restoration of lenses by means of implantation of cell cultures of lens epithelium into the pupil of adults. Bombina bombina (Anura), Mus musculus (Rodentia)
LOPEZ-CAMPS, J.; Dr. – Serv. de Micr. Electronica, Univ. de Barcelona, Granvia 585, BARCELONA 7, Spain
a Oogenesis, spermatogenesis and fertilisation. Heterocypris incongruens (Ostracoda), Mytilicola intestinalis (Copepoda), Triops cancriformis (Notostraca), and other spp. (Crustacea)
LORENC, Ms. E.; Ph.D. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., ul. Karasia 6, 30–060 KRAKÓW, Poland

a Fertilization in vivo and in vitro in inbred recombinant lines. Mus musculus (Rodentia)

LOS, J. A.; M.D. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, 1092 AD AMSTERDAM-O., Netherlands

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. Rhizotrogus spec. (Coleoptera), Pyrrhocoris spec. (Heteroptera)

d Embryonic ecdysteroids and cuticular cycles. Same species as a, and Clitumnus spec. (Phasmida), Calliphora spec. (Diptera), (Astacidae, Decapoda, Crustacea) (with B. FOURNIER, N. BORDES, M. CAVALLIN and N. DAGUERRE de HUREAUX)

LØVTRUP (REIN), Ms. H.; Fil.Dr. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEA, Sweden

a Mitochondrial differentiation during early ontogenesis. Xenopus laevis (Anura)

b Cell transformation and cell differentiation. Same species as a and Ambystoma mexicanum (Urodela) (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 UMEA, Sweden

a Cell transformation and cell differentiation. Xenopus laevis (Anura), Ambystoma mexicanum (Urodela) (with H. LØVTRUP and U. LANDSTRÖM)

b Differentiation of mitochondria. Xenopus laevis (Anura) (with H. LØVTRUP)

LÖWKVIST, H. B. J.; Fil.Kand. – Inst. of Zoophysiol., Univ. of Lund, Helgonavägen 3B, 223 62 LUND, Sweden

a Variation in polyamine content and morphological result of polyamine depletion during the two first days of development. Gallus gallus (Aves)

LUBSEN, Ms. N. H.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands

a Composition and function of primary gene products from newly activated puffs. Drosophila hydei (Diptera)

LUCARZ-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) (avec C. COLARD et L. GOMOT)

LUCAS, A.; Dr.Sci., Prof. – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France

LUCEY, E. C. A.; B.Sc. – Res. Film Unit., Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK

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)

LUGER, 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

a Elimination of zymogen cells and their derivatives by antimite, a cytostatic agent. Pelmatohydra oligactis (Hydrozoa) (with D. ŽNIDARIĆ)

b Immunological reaction and changes in differentiation and morphogenesis in xenografts. Hydra pirardi, H. pseudoligactis (Hydrozoa) (with D. ŽNIDARIĆ)

LUMSDEN, A. G. S.; Ph.D. – Unit of Anat. in Rel. to Dent., Anat. Dept., Guy's Hosp. Med. School, London Bridge, LONDON SE1 9RT, England

a Experiments on morphogenetic fields controlling tooth number and tooth form. Mus musculus (Rodentia)

b Theoretical models for the control of tooth shape. (Mammalia)

LUNDQUIST, A.; Fil.Mag. – Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3B, 223 62 LUND, Sweden

a Structure and function of yolk granules in the early embryo. Calliphora erythrocephala (Diptera)

b Germ cell determination in the embryo. Same species as a

LUTZ, H.; D.Sc., Prof. – Lab. de Biol. Anim., Univ. de Clermont II, 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 II, B.P. 45, 63170 AUBIÈRE, France
a La genèse de l'asymmétrie 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, embryoid 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)

McGEADY, T. A.; Prof. – Dept. of Vet. Anat., Univ. Coll., DUBLIN, Ireland
temporarily: Dept. of Anat., N.Y. State Coll. of Vet.Med., Cornell Univ., ITHACA, NY 14853, USA

MÁCHA, J.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
a Contractile proteins and collagen in early development. (Amphibia)

McKENZIE, J.; M.D. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, UK
a The metabolic characteristics of different tissues in the early embryo. Gallus gallus (Aves)
b The state of cell differentiation in early embryos. Same species as a
c Effects of collagen (especially deficiency of Type I collagen) on hypertrophic and keloid scar tissue. Same species as a, and Homo sapiens (Primates)
d Effects of hypoxia caused by lowered progesterone levels in the etiology of spina bifida and of heart defects (excess cell death). Same species as a

McLAREN, Anne; Ph.D. – MRC Mammal. Devl. Unit, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England

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)
c Antigenicity of spermatozoa. Rattus norvegicus (Rodentia)

MacLEAN, N.; Ph.D. – Dept. of Biol., Univ., Med. & Biol. Sci. Bldg., SOUTHAMPTON SO9 3TU, 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.

MacMILLAN, G. J.; Ph.D. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, UK
a Control of pigment pattern formation: interactions among chromatoblasts and between these cells and their surrounding tissues (transplantation; tissue culture; wild-type and mutant albino periodical). Xenopus laevis (Anura)
b Determination and cell surface properties of neural crest cells. Same species as a

MacQUEEN, Ms. H. A.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
a Surface proteins and glycoproteins in pre-implantation stages; stage-specificity of certain proteins and their possible role in development, as revealed by SDS-PAGE. Mus musculus (Rodentia)
b Plasma membrane proteins of teratocarcinoma and neuroblastoma cells; production of monospecific antisera against these cells. Homo sapiens (Primates)

MÄDER, M.; Dr. – Bot. Inst. der Univ., Im Neuenheimer Feld 360, 6900 HEIDELBERG, BRD (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, 1092 AD AMSTERDAM-O., Netherlands

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)
c In vitro translation of large RNAs

MAHON, M.; B.Sc. – Dept. of Anat., Med. School, Univ. of Manchester, Oxford Rd., MANCHESTER M13 9PT, England

a Morphology and histochemistry of skeletal muscle development and its relation to fetal movements. Oryctolagus cuniculus (Lagomorpha)

MAISONHAUTE, C. – Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d'Orsay, 91405 ORSAY, France

a Effect of different RNA synthesis inhibitors on protein synthesis and effect of alpha-amanitin during cleavage and early gastrula. Leptinotarsa decemlineata (Coleoptera)

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)

b 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

MALCHENKO, Ms. L. A. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR

a Role of neurotransmitters (serotonin, catecholamines) in early embryogenesis; effect of neuropharmaca on morphogenesis of fragments of embryos. Strongylocentrotus intermedius; S. droebachiensis, Echinus esculentus, Echinarachnius cordatum (Echinoidea)

MALCHOW, D. W. H.; Ph.D. – Fachber. Biol., Univ., Postfach 7733, 7750 KONSTANZ, BRD (Germany)

a Chemotaxis and differentiation, signal processing and relay. Dictyostelium discoideum (Acrasiales)

MAŁECKA, Ms. J. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka St. 52, 31–044 KRAKÓW, Poland

a Mode of reproduction in apomicts (cytology, embryology, experimental studies) sections Palustria, Erythrosperma, Alpina of Taraxacum (Compositae)

b Embryology. Cerinthe minor (Boraginaceae)

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 and liver in cell culture; pharmacological study. Rattus spec. (Rodentia), Homo sapiens (Primates)

b Chromosome ultrastructure and cytochemistry. Homo sapiens (Primates)

MALIKOVA, Ms. I. G. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR

a Restoration processes at different stages of ontogenesis. Pygospio elegans (Polychaeta)

MALININA, Ms. N. A.; Cand.biol.sci. – Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of USSR, Gubkin St. 3, 117809 GSP-1, MOSCOW B–333, USSR

a Developmental study of mutant gene effects on lens crystallins. Mus musculus (Rodentia)

b Gene expression in experimental chimaeras. Same species as a

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. (Ascidiacea) (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

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

a Activation of protein synthesis during embryonic development. Bufo bufo (Anura)

b Fertilization and polyspermy. Paracentrotus lividus (Echinoidea)

MANFREDI ROMANINI, Ms. M. G.; Ph.D., Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Effect of maternal protein malnutrition on pre- and postnatal cerebellum (histogenesis), especially cytochemical maturation of Purkinje cells. Rattus norvegicus (Rodentia)

b Histochemistry of placenta after protein malnutrition. Same species as a

MANGOLD, U.; Dr.med.dent. – Abt. Neuroanat., Anat. Inst. der Univ., Martinistr. 52, 2000 HAMBURG 20, BRD (Germany)

a Facial and visceral arch development. Rattus spec. (Rodentia)

MAŃKOWSKA, Ms. E.; Mgr. – Lab. of Exp. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland

a Effect of petroleum derivatives, especially xylene, on pregnancy. Rattus spec. (Rodentia)

b Effect of the first fraction of petroleum on pregnancy and reproduction. Same species as a

MANNING, Ms. M. J.; Ph.D. – Dept. of Zool., Univ. of Hull, HULL HU6 7RX, England

a Maturation of immunocompetence correlated with development of 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. (Teleostei), 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 (Ascidiacea)
b RNA synthesis in egg development. Ciona intestinalis, Ascidia malaca, Clavellina lepadiformis (Ascidiacea)
c Egg stimulation by ionophore. Same species as a
d Role of the membrane in embryonic cell differentiation. (Ascidiacea)
MANUKHIN, B. N.; Dr.biol., Prof. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
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-SEGAULT, Ms. D. – Lab. de Zool., Univ. de Parix 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
MARCHAND, C. R.; Dr. d'État – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25042 BESANÇON Cedex, France
a Histophysiologie des testicules et de l'hypophyse des hybrides intergénériques stériles comparée à celle des canards fertiles. Cairina moschata, Anas platyrhynchos (Aves) (avec L. GOMOT)
MARCHISIO, P. C.; M.D. – Ist. di Istol. ed Embriol. Gen., Univ. di Torino, Corso M. d'Azeglio 52, 10126 TORINO, Italy
MARIAŃSKA-NADACHOWSKA, Ms. A.; M.Sc. – Dept. of Exp. Zool., Inst. of Syst. and Exp. Zool., Polish Acad. of Sci., ul. Sławkowska 17, 31–016 KRAKÓW, Poland
a Teratogenic effects of pesticides. (Anura)
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, 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'épithelium (ultrastructure); 2. évolution du métabolisme du tissue 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 Action of antiandrogens on the ultrastructure of male genital organs. Cavia porcellus (Rodentia)
b Scanning electron microscopy of the cocoon shell. Dugesia lugubris (Turbellaria)
MARINI, Ms. M.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
a Glycogen in the developing central nervous system. Columbia livia, Coturnix c. japonica (Aves)
b Differentiation of the dorsal cells in the spinal cord. (Teleostei; Amphibia)
c Neurosecretion during development. Jordanella floridae, Gambusia affinis (Teleostei)
MARKENS, I. S.; Dr. – Orthodont. Dept., Dent. Sch., State Univ., Sorbonnelaan 16, 3584 CA 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)
b Occurence of alkaline phosphatase in the coronal and interfrontal suture. Same species as a
MARKOVA, Ms. L. N. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
a The products of enzymatic deamination of serotonin and catecholamines as potential regulators of cleavage divisions. Strongylocentrotus nudus, S. intermedius (Echinoidea) (with G. A. BUZNIKOV)
b The estimation of biogenic monoamines in early embryos. Strongylocentrotus intermedius, Echinus esculentus (Echinoidea)
MARSHAK, Ms. T. L. – Lab. of Developm. Cytogenet., Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR
MARSTON, J. H.; Ph.D., MRCVS – Dept. of Anat., Med. Sch., Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
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 Biol. Anim. (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 and adults. (Isopoda, Crustacea)
MARTIN, R. P.; Dipl.d'Étud.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 Ultrastructure of the blastocyst; role of nucleoli in early differentiation of the blastodermic vesicle. Same species as a
c Proteosynthesis in mitochondria. 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
a Non-Mendelian inheritance of precocious vagina opening, obtained by X-irradiation of the 6-day embryo. Rattus norvegicus (Rodentia)
b Recovery of all types of blood cells in anemic animals, obtained by parabiotic union with normal animals. Same species as a
c Inheritable hypotrichosis, a recessive syndrom affecting skin, nervous and connective tissue. Same species as a
MARTY, R. J. L.; D.Méd., D.Sc., Prof. – Lab. de Neurophysiol., Univ. des Sci. et Techn. 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: synaptogenèse. 2. Prolifération et migrations postnatales de la névroglie. 3. Dégénérescence postnatale du tractus optique et gliose réactionnelle. Rattus norvegicus, Felis catus (Mammalia)
MARTYNOVA, Ms. Z. E. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Role of neurotransmitters (serotonin, catecholamines) in early embryogenesis; effect of neuropharmaca on morphogenesis of fragments of embryos: Rana temporaria (Anura) and gastrulation: Strongylocentrotus droebachiensis (Echinoidea)
MASTROLIA, Ms. L.; Dr.biol. – Ist. di Zool. "Federico Raffaele", Viale dell'Università 32, 00161 ROMA, Italy
a Differentiation of adrenal chromaffin cells. Salmo fario (Teleostei)
b Differentiation of embryonic gonads, particularly interstitial tissue. Gallus domesticus (Aves)
MATĚJKA, M.; Dr.Med., C.Sc. – Inst. of Histol. and Embryol., Charles Univ., Karlovarská 48, 30167 PLZEŇ, Czechoslovakia
a Histogenesis of the mesenchymal derivatives. Homo sapiens and others (Mammalia)
MATO, J. M.; Drs. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands
a Role of cyclic nucleotides during chemotaxis. Dictyostelium spec. (Acrasiales)
MATUSZEWSKI, B.; Ph.D. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
a Oogenesis. (Cecidomyiidae, Diptera), (Scarabaeidae, Coleoptera)
b Extrachromosomal DNA and its role in oogenesis. (Staphylinidae & Gyrinidae: Coleoptera)
MAUCERI, Ms. A.; Dr. – Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy
a Ultrastructure of the growing oocyte. Chromis chromis, Mugil chelo (Teleostei)
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
MAUFROID, J. P. – Lab. d'Embryol., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France
a Les conditions de la détermination et de la différenciation des cellules germinales primordiales. Pleurodeles waltl (Urodela)
MAUGER (GIRARD), Ms. A.; D.Sc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53X, 38041 GRENOBLE Cedex, France
a Origin of limb muscles. Gallus domesticus, Coturnix c. japonica (Aves)
b Scanning electron microscopy of epidermis and dermis during feather morphogenesis. Same species as a
c Extracellular matrix (collagen) during skin morphogenesis. Gallus domesticus (Aves)
d Ultrastructure of cell contacts between epidermis and dermis during skin morphogenesis. Same species as c
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. – Lehrst. für Allgem. Zool., Zool. Inst. der Univ., Badestr. 9, 4400 MÜNSTER, BRD (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 C.N.R.S., 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, USSR
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 enchondral 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-capillar 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)

MECHLER, B. M.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
a Expression of contractile proteins during development (gene cloning); identification and analysis of the actin genes. Drosophila melanogaster (Diptera)

MEIJER, J. C.; D.V.M. – Vet. Anat. and Embryol. Inst., State Univ., Bekkerstr. 141, 3572 SG UTRECHT, Netherlands
a Regulation of gubernacular outgrowth in tissue culture. Sus scrofa (Artiodactyla)

MEINHARD, T.; Dr.rer.nat. – Inst. für Entw.physiol. der Univ., Gyrhofstr. 17, 5000 KÖLN 41, BRD (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

MEINIEL (BOUTRON), Ms. A.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont II, 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). Lampetra planeri (Cyclostomata)

MEINIEL, R.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
a Teratogenesis by organophosphorous insecticides. Gallus domesticus, Coturnix c. japonica (Aves)
b Effects of anticholinesterase and other neuroactive compounds on the development of nerves, muscles and skeleton. Same species as a

MELEHOVA, Ms. O. P.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
a Processes involving free radicals in normal and pathological development. Chironomus plumosus (Diptera), 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, BRD (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 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, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania
a 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 Influence of exogenous factors on embryonic development; prenatal pathology. Same species as b
d Dynamics of cyclophosphamide action. Same species as a, and Rattus norvegicus (Rodentia)
e Detection of necrosis and macrophage reaction with vital fluorochrome. Same species as d
f Teratogenesis. Homo sapiens (Primates)

MERCIER (PAROT), Ms. L.; D.Sc. – Lab. d'Embryol., U.E.R. Bioméd., Univ. Paris V (René Descartes), 45 Rue des Sts.Pères, 75270 PARIS Cedex 06, France
a Tératogenèse par sulfamides hypoglycémiants, antimetabolites. 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 déserpidine 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 F2-alpha sur la gestation. Mêmes espèces comme d (avec H. TUCHMANN-DUPLESSIS)
g Mécanismes d'action de substances embryotoxiques (transfert d'oeufs). (Rodentia) (avec C. ROUSSEL)
MERKLE, U.; Dr.med., Prof. – Anat. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 91, 8520 ERLANGEN, BRD (Germany)
a Spermatogenese und Sertoli-Zellen. Rattus spec. (Rodentia)
MESHCHERYAKOV, V. N.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
a Spatial organization of spinal cleavage: symmetry; nature of cell contacts; spindle-cortex interactions. Lymnaea stagnalis, Physa spp., Aplexa hypnorum, Radix peregra (Gastropoda)
b Isolation of the mitotic apparatus from eggs and embryos. Lymnaea stagnalis (Gastropoda)
c Organization of the contractile cortical system in cleaving eggs (ultrathin sections, membrane ghosts). Same species as b
d Long-term culture of embryos with vitelline membranes removed. Same species as b
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., Postfach 102148, 4630 BOCHUM 1, BRD (Germany)
a Influence of hormones and drugs on neurogenesis of the hypothalamus and on sexual differentiation and structure of hypothalamic nuclei. Rattus norvegicus (Rodentia)
b Cell contacts, cytochemistry of the cell surface; surface patterns and cell arrangement in the early embryo (scanning electron microscopy). Gallus gallus (Aves), Homo sapiens (Primates)
METAFORA, S.; Dr. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy
MEUSY, J.-J.; Dr. – Lab. Sex. et Reprod. des Invert., Univ. Paris VI (P. et M. Curie) Bât.A, 7e ét., 4 Place Jussieu, 75230 PARIS Cedex 05, France
a Electrophoresis and immunochemistry of the female specific protein: vitellogenin. Orchestia gammarellus (Amphipoda, Crustacea) (with Y. CROISILLE)
b Androgenic hormone (Crustacea)
MEYER, Ms. B.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Regulation of gene expression. Chironomus spec. (Diptera)
MEYER, J. M.; Dr.Méd. – Inst. de Biol. Méd., Univ. L. Pasteur, 11 Rue Humann, 67085 STRASBOURG Cedex, France
a Ultrastructure of epithelial-mesenchymal interactions in the tooth germ. Mus musculus (Rodentia)
b Gonadal histophysiology. Homo sapiens (Primates)
MGLINETZ, V. A.; Dr. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, USSR
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
MICHURINA, Ms. T. V.; Cand.biol.sci. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Differentiation of haemopoietic and connective tissue cells. Mus musculus, Rattus norvegicus, Mesocricetus auratus (Rodentia)
MIDDLETON, C. A.; Ph.D. – Dept. of Anat., Univ. of Leeds, LEEDS LS2 9JT, England
a Locomotion and behaviour of epithelial cells in tissue culture. Gallus gallus (Aves), Mus musculus (Rodentia)
MIKHAILOV, A. T.; Cand.biol.sci. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Developmental and biochemical studies on the inductive capacities of retina and brain 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. Rana temporaria, Xenopus laevis (Anura), Gallus domesticus (Aves)
d Immunochemistry of gangliosides in embryogenesis. (Echinoidea)
e Immunochemistry of antigens of the egg surface. (Mammalia)
f Immunochemistry of tissue-specific antigens of bone marrow. (Mammalia)

MIKULSKA, Ms. I.; D.Sc., Prof. (Emer.) – Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87-100 TORUŃ, Poland

MILAIRE, J.; M.D., Prof. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 Rue aux Laines, 1000 BRUXELLES, Belgium
a Structure, histochemistry and proliferation of the subridge mesoderm of limb buds (stages 19 to 26). Gallus domesticus (Aves)
b Morphology of limb-somite relationships in dominant hemimelia (Dh/+; Dh/Dh). Mus musculus (Rodentia)

MILANO-GRASSI, Ms. E.; Dr.biol. – Ist. di Zool. "F. Raffaele", Viale dell'Università 32, 00161 ROMA, Italy
a Effects of pituitary gonadotropins on embryonic gonads in organ culture. Gallus domesticus (Aves)
b Endocrine factors affecting cortical reduction of the right gonad in the female embryo. Same species as a
c Differentiation of interrenal and Stilling cells in the larval adrenal gland. Rana esculenta complex (Anura)

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)

MILMAN, L. S.; D.Sc. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Biochemistry of differentiation. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)

MINA, M. V.; cand.biol. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Growth. (Vertebrata)

MINGANTI, A.; Dr., Prof. – Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
a Effects of cholinesterase inhibitors on development (Ascidiacea; Echinoidea)
b Acetylcholine receptors in eggs and early embryos. Same species as a

MINNITI, F.; Dr. – Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy
a Some aspects of the oocyte nucleolus. Amyclina cornyculum, A. tinei (Gastropoda)

MITASHOV, V. I.; Cand.biol.sci. – Group of Regen. Problems, N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
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 (Urodela)
b Regeneration of the neural retina with special reference to S-100 protein. Triturus cristatus (Urodela) (with 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)

MITOLO, V.; M.D., Prof. – 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, USSR
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 Biol. Anim. (Physiol. et Génét. des Crustacés), Univ. de Poitiers, 40 Av. du Recteur-Pineau, 86022 POITIERS Cedex, France
a Action of external factors (temperature, light) on growth, molting and vitellogenesis (statistical methods). Several spp. (Oniscoidea, Isopoda, Crustacea)

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.; D.Sc.Biol. – Inst. de Pharmacol., Unité de Biol. du Dévl., Univ. de Lausanne, Rue du Bugnon 21, 1011 LAUSANNE, Switzerland

a Qualitative and quantitative changes in the genome during lens fiber cell differentiation
b 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, Epalinges)
c Quantitation of total DNA, RNA and proteins, and characterization of cytoplasmic polyadenylated mRNAs in stage 1-13 blastoderm. Gallus gallus (Aves) (with G. McMASTER, USA)
d Size of chromatin subunits in epithelial and fiber cell population of developing lens; characterization of various chromatin proteins. Same species as c
e Changes during development and ageing in the chromatin organisation of liver, kidney and brain. Mus musculus (Rodentia) (with M. C. CORREA)
f Changes during development and ageing in the genome integrity of the cerebral cortex. Same species as e (with M. C. CORREA and G. LEUBA)
g Unscheduled DNA synthesis in UV-irradiated differentiating lens cells. Same species as c (with J. TRETON and Y. COURTOIS, Paris)
h Unscheduled DNA synthesis in UV-irradiated embryos (st. 1-14). Same species as c
i Effect of visible light (400-700 nm) on cell proliferation dynamics in the embryo (st. 1-13). Same species as c (with M. COLEMAN, USA)
j Characterisation of histones in differentiating lens cells. Same species as c (with C. UNGER-ULLMANN, Salzburg)

MÓDIS, L.; M.D., C.Sci.med. – Inst. of Anat., Histol. and Embryol., Univ. of Med., 4012 DEBRECEN, Hungary
a Development of intercellular matrix in corneal stroma (electron microscopy). Homo sapiens (Primates)
b Ultrastructure of matrix components (collagen, proteoglycans) in embryonic cartilage. Gallus domesticus (Aves), Homo sapiens (Primates)
c Ultrastructural modulations of embryonic cartilage matrix in experimental lathyrism. Gallus domesticus (Aves)

MODLIŃSKI, 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, UK
a Postnatal development of kidney. Rattus spec. (Rodentia), Homo sapiens (Primates)

MOHR, H.; Dr.rer.nat., Prof. – Biol. Inst. II, Lehrst. für Bot., Univ., Schänzlestr. 1, 78 FREIBURG/Br., BRD (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)
b Interaction of phytochrome and cryptochrome in control of development. Sorghum vulgare (Gramineae), Amaranthus caudatus (Amaranthaceae)

MOHUN, T. J.; B.A. (Hons) – Dept. of Struct. Biol., St. George's Hosp. Med. School, Cranmer Terrace, LONDON SW17 0RE, England
a The ontogeny of proteins in early embryos. Xenopus laevis (Anura)

MOLEN, Ms. L. G. van der; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands
a Changes in populations of organelles during cellular differentiation (E.M., cytochemistry, biochemistry). Calliphora erythrocephala (Insecta)
b Chemotaxis and differentiation. Dictyostelium spec. (Acrasiales)

MOLINARO, M.; M.D., Prof. – Inst. of Histol. and Gen. Embryol., Univ. of Roma, Via A.Scarpa 14, 00161 ROMA, Italy
a Cell interaction and characterization of glycoconjugate components of cell surface in differentiating muscle cells in vitro (biosynthetic and external labelling procedures). Gallus domesticus (Aves)
b Differentiation in culture of satellite cells from normal and dystrophic muscle
c Alteration of membrane molecular components in dystrophic myogenesis

MONESI, V.; M.D., Prof. – Ist. di Istol. ed Embriol. Gen., Univ. di Roma, Via A.Scarpa 14, 00161 ROMA, Italy
a RNA and protein synthesis and enzymatic activity in differentiating male germ cells. Mus musculus (Rodentia)
b Somatic – germ cell interaction in spermatogenesis: regulative role of Sertoli cells. 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

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)
c Appearance of nutrient substances in cotyledons. Same species as b

MONROY, A.; M.D., Prof. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy

MOOLENAAR, W. H.; Drs. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 S. W. de LAAT, P. T. v. d. SAAG, J. BOONSTRA, C. L. MUMMERY, E. J. J. v. ZOELEN and S. A. NELEMANS)

MOOR, Ms. B.; Dr.phil.II – Zool. Inst. der Westf. Wilhelms Univ., Hüfferstr. 1, 4400 MÜNSTER, BRD (Germany)

a Organogenesis of the nervous system, especially its relation to the integumental sense organs: transitory formations exclusively recorded in Stylommatophoran embryos and probably not consisting of true sensory cells. Bradybaena fruticum, Succinea putris (Gastropoda)

b Morphogenesis of the embryonic shell and the teratological change of its shape caused by unfavourable conditions (alteration of the perivitelline fluid). Bradybaena fruticum (Gastropoda)

MOOR, R. M.; Ph.D. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

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 Cytological and biochemical characterisation of mutants (both experimentally induced and natural polymorphic variants) with altered morphogenesis and/or with defects in genes determining metabolic processes known to be involved in morphogenesis. Same species as a

MOORES, G. R.; Ph.D. – Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G12 8QQ, Scotland, UK

a Surface properties and behaviour of embryonic cells. Gallus gallus (Aves)

MOOTZ, Ms. U.; Dr.rer.nat. – Dept. of Anat. and Reprod. Biol., Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 5100 AACHEN, BRD (Germany)

a Transmission and scanning electron microscopy of oocytes and early developmental stages after in vitro culture and embryo transfer. Oryctolagus cuniculus (Lagomorpha)

b Micromanipulation of cells and tissues of blastocysts; developmental potential of blastomeres. Same species as a

MORACZEWSKI, J.; Ph.D., D.Sc. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland

a Cell differentiation during regeneration and asexual reproduction. Catenula leptocephala, Dugesia lugubris (Turbellaria)

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 Genetic and developmental analysis of homoeotic genes. Drosophila spec. (Diptera)

MOREAU, M.; Dr.3ème Cycle – 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 vulgare (Scaphopoda)

c Measurement of free calcium ions (aequorine, selective electrodes). Same species as a and b

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 (Urodela)

MORGAN (WRIGHT), Ms. M.; Ph.D. – School 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

no work on developmental biology in progress

MORREILLON, Ms. M. C. – 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)

b Frequency and type of epithelia remnants (cyst) and temporary epithelial proliferations (without function) in the oral cavity during fetal development

MORRIS, B.; Ph.D. – Dept. of Zool., Univ. of Nottingham, University Park, NOTTINGHAM NG7 2RD, 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, Brambell Labs., BANGOR, Gwynedd LL57 2UW, Wales, UK

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 neurulation and neural crest migration. Same species as a, and comparative aspects (Amphibia; Aves)

MOSBACHER, G. C.; Dr., Prof. – Fachber. Biol.- Zool. 16.4, Univ. des Saarlandes, 6600 SAARBRÜCKEN 11, BRD (Germany)
a Development and differentiation of sex specific characteristics; intersexuality; sexual determination of cells in regenerating imaginal discs (histology, scanning electron microscopy). Lymantria dispar (Lepidoptera)
MOUNIER, N.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Cytogenetics of non-conditional sterile mutants; genetic control of gametogenesis. Caenorhabditis elegans (Nematoda)
b Developmental control of gametogenesis by a neurosecretory substance and by a steroid hormone. 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.; D.Sc. – 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)
MRÁZKOVÁ (ŠEVČÍKOVÁ), Ms. O.; MUDr. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 00 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., "Zodiac", Agric. Univ., Marijkeweg 40, 6709 PG WAGENINGEN, Netherlands
a Time and place (organ) of origin of cell types involved in the immune response (rosette test, plaque-test of Jerne, scale-transplantation, cellular immunity in vitro (blast transformation), immuno-electrophoresis, histology, immunofluorescence, etc.). Cyprinus carpio (Teleostei)
MULAREK, Ms. O.; M.D. – Inst. of Neurol. and Sens. Organs, Med. Acad., 49 Przybyszewskiego St., 60-355 POZNAŃ, Poland
a Histochemistry of glia cells in the developing nervous system. Rattus norvegicus (Rodentia)
b Influence of transplacental intoxication with ethylnitrosourea on chemistry of developing brain. Mus musculus (Rodentia)
MULLER, J. P.; 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 Nuclear ribonucleoprotein particles in oocytes. Pleurodeles poireti (Urodela)
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, U.; M.D. – Inst. für Humangenet. und Anthropol. der Univ., Albertstr. 11, 7800 FREIBURG, BRD (Germany)
a Immunogenetics of differentiation antigens. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)
MÜLLER, W. A.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, BRD (Germany)
a Role of morphogens and neuroid functions 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)
MÜLLER, W. P.; Dr. – Stat. de Zool. Exp., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Haploid and diploid gynogenesis by hydrostatic pressure. Xenopus spec., Rana spec. (Anura)
b Female meiosis in species hybrids and polyploid species. Xenopus spec. (Anura)
c Transplantation of chromosomes into oocytes. Same species as b
MULNARD, J. G.; M.D., Prof. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 Rue aux Laines, 1000 BRUXELLES, Belgium
a Cyto-enzymology of the mechanisms regulating differentiation of inner cell mass and trophectoderm. Mus musculus, Rattus norvegicus (Rodentia)
b Experiments on developmental factors in mesonephros morphogenesis. Mus musculus (Rodentia)
c Culture in vitro and electron microscopy of normal and frozen-thawed embryos. Bos taurus (Artiodactyla)
MUMMERY, C. L.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 S. W. de LAAT, P. T. v. d. SAAG, J. BOONSTRA, E. J. J. v. ZOELEN, W. H. MOOLENAAR and S. A. NELEMANS)
MUÑOZ CUEVAS, A. – Lab. Souterrain du C.N.R.S., Équipe de Biol. Souterraine, 09200 MOULIS, Saint-Girons, France
a Différenciation, régression et ultrastructure des yeux. Ischyropsalis spec. (Phalangida, Arachnida)
MUNTZ (Mrs. 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 spp., Ambystoma spp. (Urodela)
b Electron microscopy of muscle development. Same species as a

MUSY, J. P.; M.D. – Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 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

MYLVAGANAM, R.; M.Sc. – Immunol. Unit, Dept. of Bacteriol., Univ. of Aberdeen, Foresterhill, ABERDEEN, AB9 2ZD, Scotland, UK
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)

NAAKTGEBOREN, C.; Dr. – Dept. of Obstet. and Gynecol., Wilhelmina Gasthuis, 1e Helmerstr. 104, 1054 EG AMSTERDAM, Netherlands

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

NAGEL, Ms. M. D.; Dr.3e cycle – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France

NAGL, W.; Dr., Prof. – Abt. Cytol., Fachber. Biol. der Univ., Postfach 3049, 6750 KAISERSLAUTERN 1, BRD (Germany)
a Ultrastructural differentiation and nuclear development (endomitosis) in Malpighian tubules. Gerris najas (Heteroptera)
b Autolysis of the embryonal suspensor (ultrastructure, cytochemistry). Phaseolus coccineus (Papilionaceae), Tropaeolum majus (Tropaeolaceae)
c Cell differentiation and differential DNA replication in the embryo-trophoblast system. Homo sapiens (Primates)
d Differential DNA replication as factor of differentiation, morphogenesis, phase change and floral induction in plants. Hedera helix (Araliaceae), Sambucus racemosa (Caprifoliaceae), Rhoeo discolor (Commelinaceae)
e Nuclear differentiation, DNA and RNA synthesis in the retina. Cavia porcellus (Rodentia)

NAIR, Ms. G.; M.Sc. – Dept. of Physiol., Royal Vet. Coll., Royal College St., LONDON NW1 0TU, England
a Respiration and acid-base regulation during hatching. Gallus domesticus, Coturnix coturnix, Columba livia (Aves)

NAMUR, Ms. P.; D.E.A. – Lab. d'Embryol., Dépt. de Biol.-Écol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
a Étude expérimentale de l'action d'antimétabolite au cours du développement précoce du germe. Ambystoma mexicanum (Urodela)

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 and ritodrine (in vitro perfusion). Homo sapiens (Primates)
b Effect of monoamine oxidase inhibition on placental transfer of sympathomimetics in vitro. Same species as a

NANO, Ms. R.; Dr. – Inst. 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 norvegicus (Rodentia)
b Histochemistry of tetrahydrofolate dehydrogenase in embryonic and adult erythropoiesis. Gallus gallus (Aves), Rattus norvegicus (Rodentia)

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. (Urodela)

NARDI VILARDAGA, J. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, 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., D.Sc., Prof. – Dept. of Marine Biol., Univ. of Liverpool, PORT ERIN, Isle of Man, UK

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)

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

NEEDHAM, J.; Dr., Prof. (Emer.) – Gonville and Caius Coll., CAMBRIDGE, England

NELEMANS, S. A.; Drs. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 S. W. de LAAT, P. T. van der SAAG, W. H. MOOLENAAR, J. BOONSTRA, C. L. MUMMERY and E. J. J. van ZOELEN)

NELLEN, W.; Dipl.Biol. – Inst. für Allgem. Biol. der Univ., Universitätsstr. 1, 4000 DÜSSELDORF, BRD (Germany)

a Processing of genetic information; isolation of mRNA and in vitro translation systems. Drosophila hydei (Diptera)

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., Prof. – Inst. für Biol. III der Univ., Morgenstelle 28, 7400 TÜBINGEN, BRD (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 D.F.V.L.R., Godesberger Allee 70, 5300 BONN 2, BRD (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)

c Topology of polar granules in eggs grown on the fast clinostat. Tribolium confusum (Coleoptera), Heterandria formosa (Teleostei)

NEUMANN, D.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, BRD (Germany)

a Timing of pupation and emergence 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'État, Prof. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St.-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France

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 Applications of culture methods to problems of teratogenesis

NEWCOMB, R. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a In vitro maturation and in vivo and in vitro fertilization of oocytes; culture of embryos and preservation by deep freezing; development of a non-surgical method for recovery of embryos and the investigation of factors affecting the survival of embryos after non-surgical transfer; factors affecting twinning by egg transfer. Bos taurus (Artiodactyla)

NEWTH, D. R.; Ph.D., Prof. – Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, UK

NEYFAKH, A. A.; Dr.Biol., Prof. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR

a Regulation of enzyme activity in early development; feed back systems; microinjection of enzyme into egg; distribution of enzymes in egg. Misgurnus fossilis (Teleostei)

b Gene expression in early development; genetical control of enzyme activity, role of non-histone proteins in regulation of gene activity; hybridization. Same species as a, and other spp. (Cyprinoidei, Teleostei)

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. Gén. et Appl., Univ. de Lyon I, 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. Exp., Inst. d'Histol., Univ. de Genève, 20 Rue de l'École de Médecine, 1211 GENÈVE 4, Switzerland

NICOTRA, Ms. A.; Dr.biol. – Ist. di Zool. "F. Raffaele", Viale dell'Università 32, 00161 ROMA, Italy

a Mitochondrial biogenesis during early development. Paracentrotus lividus, Arbacia lixula (Echinoidea)
b Cytochemistry and ultrastructure of spermiogenesis. Several spp. (Anostraca, Crustacea)
tacea)

NIE, C. J. van; D.V.M. – Lab. of Anat. and Embryol., Vrije Univ., v.d. Boechorststr. 7, 1081 BT AMSTERDAM, Netherlands
a Ontogenetic malformations of the heart. Sus scrofa, Bos taurus (Artiodactyla)
b Pathological development of heart and vessels. Same species as a
c Teratology. (Mammalia), Homo sapiens (Primates)

NIELSEN, Cl.; Dr.phil. – Marine Biol. Lab., Univ. of Copenhagen, Strandpromenaden, 3000 HELSINGØR, Denmark
a Developmental biology. Crisia spec., Alcyonidium 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.), Uppsalalaan 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. Bombina orientalis (Anura), 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)
d Early development. Chelonia mydas (Chelonia) (with L. A. SUTASURYA)

NIGON, V.; D.Sc., Prof. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 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), Homo sapiens (Primates)

NIJWEIDE, P. J.; Dr. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, 2333 AA 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., Moskowsky prospect 112, LENINGRAD, USSR
a Influence of UV-irradiation on development. Gallus domesticus (Aves)

NIKITINA, Ms. L. A.; Cand.biol.sci. – Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR

NIZEYIMANA-RUGINA, E.; Dr.med. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 Rue aux Laines, 1000 BRUXELLES, Belgium
a Cyto-enzymology of early development (5' nucleotidase). Mus musculus, Rattus norvegicus (Rodentia)

NORDLING, S.; M.D. – Lab. of Exp. Embryol., 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, 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

NORRIS, M. L. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Mechanisms involved in sperm transport through female genital tract; competitive fertilization between and within species; egg transport through the oviduct; fate of eggs following asynchronous transfer; survival of in vitro cultured eggs; factors affecting survival of eggs during delayed implantation; luteotrophic role of the early embryo. (Animalia)
b Sexual behaviour, hormone levels and fertility. Oryctolagus cuniculus (Lagomorpha)
c Control of implantation and delayed implantation. Meriones unguiculatus (Rodentia), Mustela vison (Carnivora)

NÖTHIGER, R.; Dr.phil., Prof. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

NOULIN, G. – Lab. de Biol. Anim. (Physiol. et Génét. des Crustacés), Univ. de Poitiers, 40 av. du Recteur-Pineau, 86022 POITIERS Cedex, France
a Contrôles endocrines de la formation at de l'évolution des régénérats d'appendices locomoteurs. (Isopoda, Crustacea)
b Étude 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. (Urodela)
b Cytology and cytochemistry of gametogenesis. Embletonia pallida (Opisthobranchia, Gastropoda)

NÜBLER-JUNG, Ms. K.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Katharinenstr. 20, 78 FREIBURG, BRD (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)
c Compartmentalisation in thoracic segments (clonal analysis). Oncopeltus fasciatus (Heteroptera)
d Regulation and cellular basis of polarity in segments (transplantation, immunofluorescence). Same species as a and c

NÜESCH, H.; D.Sc., Prof. (Emer.) – Zool. Inst. der Univ. Basel, Rheinsprung 9, 4051 BASEL, Switzerland
a Postembryonic development. (Insecta)

NUSS, Ms. E.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst. I: Morphol. und Entw.biol., Röntgenring 10, 8700 WÜRZBURG, BRD (Germany)
a Cytoplasm flows during cleavage and their correlation to energid migration by injection of specific inhibitors. Pimpla turionellae (Hymenoptera)
b Segment pattern formation analysed by double ligature. Same species as a
c Characterization of RNA synthesized during cleavage. Same species as a

NÜSSLEIN-VOLHARD, Ms. C.; Dr.rer.nat. – Europ. Molec. Biol. Lab., P.O. Box 102209, 6900 HEIDELBERG, BRD (Germany)
a Pattern formation in early embryogenesis: maternal effect mutants. Drosophila melanogaster (Diptera)

NYIRI, S.; M.D. – Dept. of Ophthalmol., Univ. Med. Sch., Korányi S.16, SZEGED, Hungary

NYITRAY, Ms. M. – Inst. for Drug Res., 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)

OCKLEFORD, C. D.; Ph.D. – Dept. of Anat., Univ. of Leicester, Med. Sci. Bldg., University Rd., LEICESTER LE1 7RH, England
a Developmental morphology, physiology and pathology of the placenta. Homo sapiens (Primates)
b Placental organelles concerned with transport and immunoprotection. Same species as a

OCKLEFORD, Ms. E. M.; M.Sc. – Dept. of Psychol., Univ., LEICESTER LE1 7RH, England
also: ARC Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England
a Possibility of an hormonal hatching trigger and control of the timing of development immediately prior to hatching. Gallus domesticus (Aves)
b Effects of prenatal sound stimulation on behaviour of neonate (auditory deprivation). Homo sapiens (Primates)

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 fertilisation and during early development. Paracentrotus lividus (Echinoidea); various spp. (Ascidiacea)
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)
c Electron microscopy of: 1. origin of nuage in trophocytes; 2. ovarian envelopes. Naucoris cimicoides (Heteroptera)

OJEDA SAHAGUN, J. L.; Dr.Med., Prof. – Serv. de Embriol. Exper., Dept. de Anat., Fac. de Med., SANTANDER, Spain
a Early development of the heart (light; transmission and scanning electron microscopy). Gallus domesticus (Aves)
b Postnatal development of the kidney (light; transmission and scanning electron microscopy). Oryctolagus cuniculus (Lagomorpha)

OKKER-REITSMA, Ms. G. H.; Ph.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 2333 AA LEIDEN, Netherlands
a Gonadotropin production and secretion by the placenta 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, BRD (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 (Urodela)

OLIVO, O. M.; Prof. – Ist. di Anat. Umana Norm., Univ. di Bologna, Via Irnerio 48, BOLOGNA, Italy
a Fasting and growth. Gallus domesticus (Aves)

OPAS, Ms. J.; M.Sc. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak. Przedmieście 26/28, 00-927 WARSZAWA, Poland
a Changes of cortical properties of oocytes and fertilized eggs. Mus musculus (Rodentia)
ORTOLANI, Ms. G.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Role of membrane in embryonic cell differentiation. (Ascidiacea)
b Hybridization and gynogenesis. (Ascidiacea)
ORTS LLORCA, F.; Prof. (Emer.) – Dept. of Anat., Fac. of Med., Ciudad Univ., MADRID, Spain
OSIPOV, V. V.; Dr. – Inst. of Med. Genet., Kashirskoye Chaussee 6a, MOSCOW 115478, USSR
a Genetic regulation of development of brain, eye, and limbs. Mus musculus (Rodentia)
OSTROUMOVA, Ms. T. V. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, USSR
a Interaction between morphogenetic and metabolic processes in early embryonic development. (Hydrozoa), Xenopus spp., Rana spp. (Anura)
OUAZANA, R.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Development of cuticular collagen-like proteins during post-embryonic stages and analysis of mutants with altered cuticles. Caenorhabditis elegans (Nematoda)
OUDHOF, H. A. J.; Dr. – Orthodont. Dept., Dent. Sch., State Univ., Sorbonnelaan 16, 3584 CA 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. J. van DOORENMAALEN (Dept. of Anat.) and I. S. MARKENS)
b Occurence of alkaline phosphatase in the coronal and interfrontal suture. Same species as a
OYEN, H. van; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Development and correctibility of behaviour. Rattus norvegicus (Rodentia)
b Influences of gonadal hormones on brain development and learning. Same species as a
OŻDŻENSKI, 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)
OZERNYUK, N. D.; Cand.sci. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, USSR
a Biochemistry of development. Misgurnus fossilis (Teleostei)
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
a Fission. Dugesia gonocephala s.l. (Turbellaria)
PALEČEK, J.; RNDr. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
a Cytoskeletal proteins in early development of embryos. (Amphibia)
PALLADINI, G.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
PALMBACH, L. R. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Biosynthesis of mitochondria during oogenesis and early development. (with A. V. KOTOMIN)
PALTER, Ms. K.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
a Localization of maternal messages, especially morphogenetic determinant(s) for pole cell formation, using mutants which either only make pole cells (mat(3)1) or whose F1 are agametic (grandchildless) (cloning of maternal messages and subsequent in situ hybridization to developing eggs). Drosophila melanogaster (Diptera)
PANATTONI, G. L. – Dept. of Hum. Anat., Univ. of Torino, Corso M.D'Azeglio 52, 10126 TORINO, Italy
a Three-dimensional reconstitution of embryonic structures obtained with mathematical methods
b Mathematical models of axoplasmic transport in embryonic motoneurons. Gallus domesticus (Aves)
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. – Inst. of Histol., Embryol. and Neurocytol., 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, USSR
a Dependence of DNA synthesis and cell proliferation in pigment epithelium of the retina upon general growth factors of the eye. Rattus norvegicus (Rodentia)
PANTELOURIS, E. M.; Ph.D. – Biol. Dept., School of Biol. Sci., Univ. of Strathclyde, George St., GLASGOW G1 1XW, Scotland, UK

PAPAIOANNOU, Ms. V. E.; Ph.D. – Sir William Dunn School of Pathol., Univ. of Oxford, South Parks Rd., OXFORD OX1 3RE, England
a Analysis of mutants in chimeras. Mus musculus (Rodentia)
b Injection of teratocarcinoma cells into embryos. Same species as a
PAPILLON, Ms. M. – Cytophysiol. des Arthropodes, U.E.R. de Biol.-Zool., Univ. Paris VI (P. et M. Curie), 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 Effects of breeding temperature upon ecdysone and juvenile hormone levels. Same species as a
PARGNEY, J. C. – Lab. de Bot. II, Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France
a Cytochemistry and cytoenzymology of the pollen tube. (Angiospermae)
PARISI, E. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P.3042, 80100 NAPOLI, Italy
a Regulation and co-ordination of cleavage (cytology, biochemistry). Paracentrotus lividus (Echinoidea)
b Theoretical study of early commitment in the newly fertilized egg (biomathematics). Ascidia malaca, Phallusia mamillata (Ascidiacea)
PARKER, M. G. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Mechanism of action of steroid hormones, at the molecular level, with respect to their control of specific gene expression in sex accessory tissues. (Mammalia)
PARRINELLO, N.; Dr.biol., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Immune response. Discoglossus pictus (Anura)
b Defense reaction and natural hemagglutinins. Ciona intestinalis, Ascidia malaca, Phallusia mamillata (Ascidiacea), Holothuria polii (Holothuroidea)
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. – Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
a Experimental embryology of the cerebellum. Gallus gallus (Aves)
PASSAPONTI, A.; M.D., Prof. – Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
a Mezzi facilitanti l'attecchimento di innesti omo- ed eteroplastici in embrioni. Gallus domesticus (Aves), Rattus rattus (Rodentia)
b Capacità formativa degli epiteli di rivestimento nell'embrione. Gallus domesticus (Aves)
PASTEELS, J. J.; M.D., Prof.hon. (Emer.) – Av. Delleur 35, 1170 BRUXELLES, Belgium
PATEK, C. – Inst. of Anim. Genet., Univ. of Edinburgh, West Mains Rd., EDINBURGH EH9 3JN, Scotland, UK
a In vitro analysis of teratogens (with R. M. CLAYTON and D. I. DE POMERAI)
PATRICOLO, Ms. E.; Dr.nat.sci., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Collagen in embryos. Ciona intestinalis (Ascidiacea)
b Cellular aggregation. Same species as a, and Ascidia malaca (Ascidiacea)
c Metamorphosis. (Ascidiacea)
d Role of membrane in embryonic cell differentiation. (Ascidiacea)
PATRINOU-GEORGOULA, Ms. M.; Ph.D. – Biol. Res. Ctr., Natl. Hellenic Res. Found., Vassil. Konstantinou 48, ATHENS 501/1, Greece
a Biochemical identification of the protein moiety of the ribonucleoprotein (RNP) complexes during different developmental stages; immunochemical correlation between nuclear and cytoplasmic RNPs; comparison with higher organisms. Dictyostelium discoideum (Acrasiales)
PAULINO, Ms. Z. L.; M.Sc. – Lehrst. Entw.physiol., Inst. für Biol. III, Univ., Morgenstelle 28, 7400 TÜBINGEN 1, BRD (Germany)
a Protein patterns of egg and embryo, especially yolk protein (electrophoresis and immunotechniques). Apis mellifera (Hymenoptera)
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 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. 53X, 38041 GRENOBLE Cedex, 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)
d Relations between somite and somatopleura during early limb bud development. Same species as a
PAVIĆ, Ms. D.; B.C. – Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. "Boris Kidrič", P.O. Box 522, 11001 BEOGRAD, Yugoslavia
a Non-Mendelian inheritance of precocious vagina opening, obtained by X-irradiation of the 6-day embryo. Rattus norvegicus (Rodentia)

b Recovery of all types of blood cells in anemic animals, obtained by parabiotic union with normal animals. Same species as a
c Inheritable hypotrichosis, a recessive syndrom affecting skin, nervous and connective tissue. Same species as a

PAWLOWITZKI, I. H.; Dr.med., Prof. – Inst. für Humangenet., Westf. Wilhelms Univ., Vesaliusweg 12–14, 44 MÜNSTER, BRD (Germany)
a Prenatal diagnosis of genetic defects. Homo sapiens (Primates)
b Malformation syndromes; delineation 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

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

PEAUCELLIER, G.; Dr.3e Cycle – Stat. Biol., place Georges-Teissier, 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 (Nemertina)
d Wound healing (scanning electron microscopy). Same species as a

PEEL, Ms. 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., Med.Fak., Univ., Olshausenstr. 40–60, 2300 KIEL, BRD (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)

PELLINIEMI, L. J.; D.Med. – Lab. of Electr. Micr., Univ. of Turku, Kiinamyllynkatu 10, 20520 TURKU 52, Finland
a Development of the genital system in embryos. Sus scrofa domesticus (Artiodactyla), Homo sapiens (Primates)
b Development of embryonic prostate. Homo sapiens (Primates)

PELLONI-MUELLER, 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)

PERÄSALO, I. K. V.; M.A. – Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiankatu 7, 00100 HELSINKI 10, Finland
a Changes in cell surface charge during early development. Gallus domesticus (Aves)

PERISSEL, B. – Lab. d'Histol.-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

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
c Hybridomas

PERRIER-BARTA, Ms. H.; D.E.S. – Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France

PERRIN-WALDEMER, C. G. – Lab. de Biol. Anim., Univ. de Clermont II, B.P. 45, 63170 AUBIÈRE, France
a Cytodifferentiation in the pharate adult. Drosophila melanogaster (Diptera)

PERRIS, R.; Fil.kand. – Dept. of Zoophysiol., Univ. of Umeå, 901 87 UMEÅ, Sweden
a Aggregate formation in cultured embryonic cells. Ambystoma mexicanum (Urodela)

PERRY, Ms. M. M.; B.Sc. – Poultry Res. Ctr., Agric. Res. Counc., King's Bldgs., West Mains Rd., EDINBURGH EH9 3JS, Scotland, UK
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, USSR
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 R. KLEPAC, K. MILKOVIĆ, and J. PAUNOVIĆ)
b Effects of perinatal influences, especially adrenocorticoids, on emotionality, active and passive avoidance conditioning. Same species as a (with J. PAUNOVIĆ)

PERZANOWSKA, Ms. A.; M.Sc. – Dept. of Comp. Anat., Jagellonian Univ., ul.M.Karasia 6, 30-060 KRAKÓW, Poland
a Early development of contractile proteins. Salmo trutta (Teleostei)

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)

PETERKOVÁ, Ms. R.; MUDr. – Inst. of Exp. Med., Dept. of Teratol., Czech. Acad. of Sci., Legerova 61, 120 00 PRAHA 2, Czechoslovakia
a Development of dental lamina and tooth germs. Mus musculus (Rodentia)

PETERS, Ms. H.; M.D. – Finsen Lab., Finsen Inst., 49 Strandboulevarden, 2100 COPENHAGEN Ø, Denmark
a Development of the ovary. Homo sapiens (Primates)

PETERS, P. W. J.; D.V.M. – Dept. of Teratol. and Pharmacol. Pathol., Natl. Inst. of Public Health, P.O.Box 1, 3720 BA 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, BRD (Germany)

PETRIGLIERI, P. – Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
a Optic stalk development

PETZELT, Ch. P.; Ph.D. – Inst. of Cell Res., German Canc. Res. Ctr., Im Neuenheimer Feld 280, Postfach 101949, 69 HEIDELBERG 1, BRD (Germany)

PETZOLDT, U.; Dr.rer.nat. – Lab. of Cell Differ., Dept. of Biol., Univ. of Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Protein patterns in early development. (Mammalia)
b Enzyme activation during embryogenesis. (Mammalia)

PEXIEDER, T.; M.D., Prof. – Inst. d'Histol. et d'Embryol., Univ. de Lausanne, Rue du Bugnon 9, 1011 LAUSANNE, Switzerland
a Tissue dynamics of heart morphogenesis. Gallus domesticus (Aves)
b Teratogenic mechanisms of cardiovascular malformations. Gallus domesticus (Aves), Mus musculus, Rattus norvegicus (Rodentia)
c Congenital heart anomalies in experimental fetal trisomies. Mus musculus (Rodentia)
d Teratogenic mechanisms of hereditary heart malformations in keeshond embryos. Canis familiaris (Carnivora)
e Organogenesis of the hearts from legal abortions. Homo sapiens (Primates)

PFANNENSTIEL, H.-D.; Dr., Prof. – Inst. für Allg. Zool., Freie Univ. Berlin, Kön.-Luise Str. 1–3, 1000 BERLIN 33, BRD (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

PHILLIPS, I. D. J.; Ph.D. – Dept. of Biol. Sci., Washington-Singer Labs., Univ. of Exeter, EXETER EX4 6DY, England

PICARD, A. – Stat. Biologique, Place Georges-Teissier, 29211 ROSCOFF, France
a Conditions of fertilisation in a hermaphrodite: (own?) sperm is phagocytized in spermatheca. Spirorbis spirorbis (Polychaeta)
b Chronology of the development, and periodical release (semi-lunar) of larvae under various conditions of temperature, light, water level, etc. Same species as a

PICARD, Ms. B.; Dr.3e cycle – Centre de Génét. Moléc. du C.N.R.S., 91190 GIF-sur-YVETTE, France
a Mécanismes biochimiques de l'oogenèse. Xenopus laevis (Anura), Pleurodeles waltl (Urodela)

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 Biol. Anim. (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)

PIERIK, R. L. M.; Dr., Ir. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O. Box 30, 6700 AA WAGENINGEN, Netherlands
a Callus induction, callus culture and regulation of morphogenesis in isolated tissues. Anthurium andraeanum (Araceae), Gerbera jamesonii (Compositae), Nerine bowdenii (Amaryllidaceae), (Bromeliaceae)

PIHAN, J. C.; Agr. de Sci., D.Sc. – Inst. Européen d'Écol., 57000 METZ, France
a Effects of heavy metals on 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, 9751 NN HAREN, Netherlands
a Oogenesis, spermatogenesis, spermiogenesis, fertilization, and parthenogenesis. Carausius morosus (Phasmida); (Acari, Arachnida)
b Quantitative cytochemistry, also in relation to differentiation. Same species as a

PIJNENBORG, R. K. J.; Ph.D. – Unit for Res. of Human Reprod., Cathol. Univ., Acad. Hosp. St. Rafaël, 3000 LEUVEN, Belgium
a Fertilization and development of preimplantation embryos in vitro: effect of different medium constituents on cleavage rate and, after embryo transfer, on ultrastructure of attachment and implantation; especially hormonal conditioning of events related with implantation. Rattus rattus (Rodentia)
b Timing and spatial pattern of trophoblast invasion in relation to histological changes in decidual and myometrial blood vessels and the occurrence of inflammatory reactions. Rattus rattus, Mesocricetus auratus (Rodentia), Homo sapiens (Primates)

PILLERI, G.; Dr.med., Prof. – Brain Anat. Inst., Untere Zollgasse 71, (Waldau), 3072 OSTERMUNDIGEN-BE, Switzerland
a Entwicklung des Gehirns. Castor 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 wei 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)

PINTO-MACHADO, J. – Inst. of Anat., Fac. of Med., Univ. of Porto, Asprela, 4200 PORTO, Portugal
a Prenatal and postnatal effects of cyclophosphamide and other alkylating agents on testis and ovary. Mus musculus (Rodentia)
b Prenatal effects of cyclophosphamide and other alkylating agents on the lymphoid system. Same species as a

PIOT, E.; Lic.Chem. – Dept. of Cell Biol., Univ. of Antwerpen, Universiteitsplein 1, 2610 WILRIJK, Belgium
a Characterisation and role of translational inhibitor RNA from cryptobiotic gastrulae. Artemia salina (Anostraca, Crustacea)

PIRKIĆ, A.; M.D. – Dept. of Pathol., Fac. of Dent., Univ. of Zagreb, Clin. Hosp. "Dr. M. Stojanović", 41000 ZAGREB, Yugoslavia
a Pathology of placenta, gastroenteropancreatic system and endocrine system. Homo sapiens (Primates)

PIRRONE, 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 Isolation of specific mRNAs from embryos (zonal centrifugation; oligo-dT cellulose column; assay in wheat germ cell free system; polyacrylamide gel fractionation. Same species as a

PLATONOV, E. S.; Cand.biol.sci. – Phenogenet. Lab., Inst. of Gen. Genet., USSR Acad. of Sci., Gubkin St. 3, 117809 GSP–1, MOSCOW B–333, USSR
a Biochemistry and immunology of crystallins during lens development. Mus musculus (Rodentia)
b Gene expression in experimental chimaeras. Same species as a

PLEEGING, J. H.; M.D. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, 9713 EZ GRONINGEN, Netherlands
a Topographical relationships in the intestine during ontogenesis. Mus musculus (Rodentia)
b The origin of the pronephric duct. Same species as a

PLICKERT, G.; Dr. – Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, BRD (Germany)
a Stolonal pattern formation, especially initiation of lateral buds (branching). Eirene viridula (Hydrozoa)
b Mechanisms of growth and histogenesis of the terminal stolon. 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)
c Developmental biology of female meiosis studied in vivo and in vitro. Mus musculus (Rodentia)

POLEZHAEV, L. V.; Dr.biol., Prof. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, USSR

POLGE, C.; Dr. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Factors influencing motility, morphology and fertilizing capacity of spermatozoa during storage

in vitro, especially freezing and thawing and the effects of seminal plasma constituents; sperm survival in different regions of the female reproductive tract and the ageing of gametes in vivo; variations in fertility among males; capacitation of spermatozoa and fertilization in vitro. Sus scrofa domesticus (Artiodactyla)

b Methods for collection and transplantation of embryos; factors affecting the viability of embryos and the establishment of pregnancy following egg transfer; culture, storage and deep-freezing of embryos; manipulation of embryos in vitro and sex determination; maturation of oocytes in vitro; basic studies on early embryonic development. Same species as a

c Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

POLL, N. E. van de; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands

a Development and correctibility of behaviour. Rattus norvegicus (Rodentia)

b Influences of gonadal hormones on the development of the neural substrate underlying sexual behavior and aggression. Same species as a

POLTEVA, Ms. D. G.; Cand.biol.sci. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, USSR

a Differentiation of interstitial cells in ontogenesis. Obelia lovenii, Coryne lovenii (Hydrozoa)

b Oogenesis. Same species as a

PORCELLI, Ms. F.; Ph.D., Prof. – Inst. of Dom. Anim. Anat., Univ. of Milano, Via Celoria 10, 20100 MILANO, Italy

POSINOVEC, 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)

POURTOIS, M.; M.D., Prof. – Inst. de Stomatol., Univ. Libre de Bruxelles, 322 rue Haute, 1000 BRUXELLES, Belgium

PRADA ELENA, F. – Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med., Univ. of Sevilla, SEVILLA, Spain

a Histogenesis of the retina: typology of horizontal cells. Gallus gallus (Aves)

PRAT, Ms. M.; Ph.D. – 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 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 TIMIŞOARA, Rumania

a Dynamics of cyclophosphamide action. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)

b Detection of necrosis and macrophage reaction with vital fluorochrome. Same species as a

c Teratogenesis. Homo sapiens (Primates)

PRESLEY, R.; M.B., B.Chir. – Dept. of Anat., Univ. Coll., P.O.Box 78, CARDIFF CF1 1XL, Wales, UK

a Development of cranial structures: comparative correlation between embryology and palaeontology. (Vertebrata)

PŘESLIČKOVÁ, 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, UK

a Synapse counting in optic tecta in normal and experimental conditions. Xenopus spec. (Anura)

b Development of neuromuscular connections (electron microscopy, pharmacology). Same species as a, and Gallus domesticus (Aves)

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)

PRETOVÁ, 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

c Cultivation of heart stage embryos in vitro. Same species as a

d Plastids of embryos in three general developmental stages in in vitro embryogenesis. Same species as a

PRIESTER, W. de; Ph.D. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands

a Electron microscopy of developmental stages. Calliphora erythrocephala (Diptera)

b Morphological and functional alterations of organelles during metamorphosis. Same species as a

c Role of hormones in premetamorphic changes. 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

PRINCEVA, Ms. O. Yu.; Cand.sci. – Chair of Embryol., Biol. Fac., Moscow State Univ., Lenin Hills, MOSCOW 117234, USSR

a Ribonucleoprotein-containing particles in differentiating nuclei of erythroid cells. Columba livia (Aves)

b Changes in differentiating nuclei during early development of embryos with normal or transplanted nuclei. Misgurnus fossilis (Teleostei)

PRITCHARD, D. J.; Ph.D. – Dept. of Human Genet., Univ. of Newcastle, 19 Claremont Place, NEWCASTLE-upon-Tyne NE2 4AA, England

a Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. Gallus domesticus (Aves), Mus musculus (Rodentia) (with D. S. McDEVITT (Philadelphia))

b Ultrastructure, immunology and cell properties of lenses with normal and genetically modified cell membranes. Same species as a (with D. I. de POMERAI (Nottingham))

c Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with D. I. de POMERAI)

d In vitro analysis of transdifferentiation of neural and pigmented retina. Same species as a, and Homo sapiens (Primates) (with D. I. de POMERAI)

e In vitro analysis of teratogens. (with D. I. de POMERAI)

f Development and degeneration of the retina. Same species as d

g In vitro analysis of gene expression and its control in Down's syndrome. Homo sapiens (Primates)

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)

PRZEŁĘCKA, Ms. A.; Dr. – Dept. of Cell Biol., Nencki Inst. of Exp. Biol., Polish Acad. of Sci., 3 Pasteur St., 02-093 WARSZAWA, Poland

a Developmental changes in ultracytochemical characteristics of plasma membrane: Acanthamoeba castellanii (Rhizopoda); oocyte: Galleria mellonella (Lepidoptera)

PUCCI (MINAFRA), Ms. I. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

PUCCIA, E.; D.Sc. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Cyclic nucleotides during embryonic development. Ciona intestinalis (Ascidiacea), Discoglossus pictus (Anura)

b Cyclic nucleotide pathway in opercular regeneration. Hydroides norvegica (Polychaeta)

PUELLES-LOPEZ, L.; M.D., Prof. – Dept. of Anat., Univ. of Sevilla, Plaza de Falla, CADIZ, Spain

a Postmitotic neuroblast differentiation and migration patterns in optic tectum, retina and diencephalon, Gallus gallus (Aves)

b Guidance mechanism of motor neuroblast migrations. Same species as a

c Pattern of acetylcholinesterase-positive neuroblasts appearing in the embryonic chick brain, compared with that of the mouse. Gallus gallus (Aves), Mus musculus (Rodentia)

d Development of isthmic nuclei. 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, Ms. I. V.; Cand.biol. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, 199164 LENINGRAD, USSR

a Influence of starvation on integration of the organism and on regeneration. Criodrilus lacuum (Lumbricomorpha), Aeolosoma variegatum (Naidomorpha, Oligochaeta)

RAAMSDONK, W. van; Dr. – Zool. Lab., Univ. of Amsterdam, Plantage Doklaan 44, 1018 CN AMSTERDAM, Netherlands

a Influence of neural and mechanical factors on the development of the muscular system. Brachydanio rerio (Teleostei), Ambystoma mexicanum (Urodela)

RADZIKOWSKI, S.; M.Sc. – Dept. of Cytol., Inst. of Zool., Warsaw Univ., Krak. Przedmieście 26/28, 00-927/1 WARSZAWA, Poland

a Intraclonal conjugation and abortive conjugation resulting in permanent ability for selfing; daily changes in mating type expression. Chilodonella steini (Ciliata)

b Correlations between the phases of the cell cycle and rhythms of changes of mating types (autoradiography, cytophotometry). Same species as a

RAEDLER, Ms. E.; Dr.med. – Abt. Neuroanat., Anat. Inst. der Univ., Martinistr. 52, 2000 HAMBURG 20, BRD (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)

RAFFIN, J. P.; D.Sc. – 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)

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. (Urodela)

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, USSR

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

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), Musca domestica (Diptera)

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

RANSOM, R. J.; Ph.D. – Dept. of Biol., The Open Univ., Walton Hall, MILTON KEYNES MK7 6AA, England

a Developmental genetics. Drosophila melanogaster (Diptera)

b Computer modelling in developmental biology

RANZI, S.; Ph.D., Prof. – Ist. di Zool., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy

a RNA action in induction and differentiation of somites. Gallus domesticus (Aves)

RASHEDI, M.; D.Méd. – Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, 146 Rue Leo-Saignat, 33076 BORDEAUX Cedex, France

a Role of testis in differentiation of genital duct. Gallus gallus (Aves)

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, 3941 CG DOORN, Netherlands

a Computer simulation of embryonic development. (with J. J. BEZEM, Zool. Lab., State Univ. of Utrecht)

RAYNAUD, A.; D.Sc. – Lab. de Zool., Univ. Paul Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE, France

a Mechanisms of rudimentation of the limbs (histology, histochemistry, ultrastructure, cytophotometry, microsurgery). Anguis fragilis, Lacerta spp., Scelotes spec. (Lacertilia)

b Morphogenesis of the mammary gland in male embryos. Mus musculus (Rodentia)

REBER (PELLÉ), Ms. A. – Lab. d'Endocrinol., Univ. de Rouen, Place E. Blondel, B.P. 67, 76130 MONT-SAINT-AIGNAN, France

a Role of uterus and embryo in implantation. Rattus norvegicus (Rodentia)

REDI, C. A.; Prof. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Effect of maternal protein malnutrition on pre- and postnatal cerebellum (histogenesis), especially cytochemical maturation of Purkinje cells. Rattus norvegicus (Rodentia)

b Histochemistry of placenta after protein malnutrition. Same species as a

RELEXANS, J. C.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France

a Regeneration. Eisenia spec. (Oligochaeta), Salamandra spec., Triturus spec. (Urodela)

b Angiogenesis. Gallus domesticus (Aves), Mus musculus (Rodentia)

REMBOLD, H.; Dr.rer.nat., Prof. – Dept. of Insect Biochem., Max-Planck-Inst. für Biochem., 8033 MARTINSRIED b.München, BRD (Germany)

RENKAWITZ, R.; Dr. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, BRD (Germany)

a Expression of ribosomal DNA: are intervening sequences and "gap" sequences transcribed? (cloning, sequencing, hybridization). Sciara coprophila (Diptera)

b Expression of lampbrush loops in spermatocytes (cloning, hybridization). Drosophila hydei (Diptera)

RENKAWITZ-POHL, Ms. R.; Dr. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, BRD (Germany)

a Are the two types of intervening sequences in the 28S rRNA coding DNA unique to certain cell types or are they restricted to one of the three rDNA clusters? Sciara coprophila (Diptera)

b Does compensated rDNA reflect the image of the uncompensated rDNA or are certain units selectively replicated; do all tissues replicate the same rDNA during compensation? Drosophila hydei (Diptera)

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. Pissodes spec. (Coleoptera)

b Ultrastructure of intracellular bacteroids. Same species as a

c Activity of the corpora allata in the embryo. Carausius spec. (Phasmida) (with A. HAGET and J. ROGUEDA)

REUM, L.; Dipl.-Chem. – Physiol.-Chem. Inst. I, Univ. Marburg, Deutschhausstr. 1–2, 3550 MARBURG, BRD (Germany)

a Purification and chemical characterisation of metabolites of ecdysone. Calliphora erythrocephala (Diptera)

REVERBERI, G.; D.Sc., Prof. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Effect of pederin on fusion of unfertilized eggs. (Ascidiacea)

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 germen. (Aves)

REYSS-BRION (DUCREAU), Ms. 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 Différenciation sexuelle; inversion du sexe après ovariectomie. Gallus gallus, Coturnix c. japonica (Aves)

RIBBERT, D.; Dr.rer.nat. – Zool. Inst. der Univ., Badestr. 9, 4400 MÜNSTER/Westf., BRD (Germany)

a RNA spectra in egg follicle development (radio-isotopes, electrophoresis). Calliphora erythrocephala (Diptera)

b Chromosome cytology of germ line cells (polytene chromosomes). (Calliphorinae, Muscidae, Diptera)

c Chromosome cytology of developing macrochaetes (trichogene cells). Same species as b

d SAT-DNA replication in experimentally induced polytene chromosomes of nurse cell nuclei of meroistic ovaries (hybridization technique). Same species as b

e Determination of DNA-complexity. Calliphora spec., Musca spec., Lucilia spec., Anomia spec. (Diptera)

f Synthesis, storage and consumption of template active RNA produced during oogenesis. Calliphora erythrocephala, Gnomia mortuorum (Diptera)

RICCA, Ms. M. B.; Dr. – Inst. of Zool. and Comp. Anat., Univ. of Messina, Via dei Verdi 75, 98100 MESSINA, Italy

a Some aspects of the oocyte nucleolus. Amyclina cornyculum, A. tinei (Gastropoda)

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

RICHTER, K. H.; Ph.D. – Orthop. Klinik, Univ. Marburg, Schützenstr. 49, 355 MARBURG, BRD (Germany)

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. – Forschungsgr. Hautklinik, Klin.Univers.-Anstalten, Neuenheimer Feld 324, Zimmer 404, 6900 HEIDELBERG, BRD (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 electron microscopy, histochemistry, biochemistry). Heterandria formosa, Phoxinus phoxinus, Pomatoschistus minutus and other fresh water and marine spp. (Teleostei)

c Spermatogenesis, gonopodium development, hermaphroditism (light and electron microscopy, histo-, ultrahisto- and enzyme histochemistry, X-ray analysis, modified method of Spalteholz). Heterandria formosa (Cyprinodontoidei, Teleostei)

RINALDI, Ms. A. M.; Dr.Biol. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy
RINALDI, Ms. L.; Dr.Biol. – Ist. di Zool., Univ. di Parma, Via Università 12, 43100 PARMA, Italy
RINAUDO, M. T.; Prof. – Inst. of Biochem., Univ. of Torino, 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 fructosediphosphatase 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 Somatic cell genetics. Drosophila melanogaster (Diptera)
b Clonal behavior of aneuploid cells. Same species as a
c Mutations altering mitotic processes. Same species as a
RISNES, S. – Dept. of Anat., Dent. Fac., Univ. of Oslo, P.O. Box 1052, Blindern, OSLO 2, Norway
ROBECCHI GIACOBINI, M. G.; M.D. – Dept. of Hum. 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 Localization of intracellular acetylcholine receptor in normal and denervated muscle (electron microscopic autoradiography). Same species as a
ROBERT, L.; M.D. – Lab. de Biochim. du Tissu Conjonct., Équipe de Rech. du C.N.R.S., Univ. Paris XII (Val-de-Marne), 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, UK
a Development of imaginal buds. Drosophila spec. (Diptera)
ROCH, Ph.; Dr.biol.anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Genetics of histocompatibility: in vivo and in vitro incompatibility reactions, ontogeny, molecular basis, genetic determinations and relations. Eisenia foetida (Oligochaeta), (Sipuncula)
RODA, A. – Inst. F. Olóriz, Fac. of Med., Univ. of Granada, GRANADA, Spain
a Electron microscopy of developing nervous system. Gallus gallus (Aves)
RODÈ, 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
a Comparative study of ontogenesis of endocrine cells in the gastroenteropancreatic system. (Rodentia), Homo sapiens (Primates)
ROE, Ms. R.; 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)
ROEST (WAGENAAR), Ms. J. A. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, 1092 AD AMSTERDAM-O., Netherlands
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)
c Activity of the corpora allata in the embryo. Same species as a (with A. HAGET and A. P. RESSOUCHES)
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, Coturnix c. japonica (Aves)
b Differentiation of the somatic and germinal tissues of the gonad. Gallus domesticus (Aves), Mus musculus (Rodentia)
c Regulative capacities of the embryo. Same species as b
ROGUSKI, H.; Ph.D. – Dept. of Exp. Zool., Inst. of Syst. and Exp. Zool., Polish Acad. of Sci., ul. Sławkowska 17, 31-016 KRAKÓW, Poland
a Hybridogenesis. Rana esculenta (Anura)
ROHR, R.; Dr. – Lab. of Plant Cytol., Univ. of Nancy I, C.O.140, 54037 NANCY Cedex, France
a Development of 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 PLZEŇ, 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), Oryctologus 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, USSR

ROMANOVSKÝ, A.; RNDr., D.Sc., Prof. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia
a Cell division in relation to cell determination. (Amphibia) (with F. SLÁDEČEK)
b Pigment formation in albinos. (Amphibia) (with F. SLÁDEČEK and V. HABROVÁ)

ROMBOUT, J. H. W. M.; M.Sc. – Dept. of Exp. Anim. Morphol. and Cell Biol., "Zodiac", Agric. Univ., Marijkeweg 40, 6709 PG WAGENINGEN, Netherlands
a Origin and differentiation of intestinal endocrine cells during early development. (Teleostei)

ROMERO, R. – Dept. of Genet., Fac. de Biol., Univ. de Barcelona, Plaça Universidad, BARCELONA-7, Spain
a Quantitative analysis of cell types during growth and regeneration. Dugesia mediterranea, D. tigrina (Turbellaria)

ROMIJN, H. J.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Synaptogenesis in brain tissue cultures. Rattus norvegicus (Rodentia)

RONCALI, Ms. L.; M.D. – Inst. of Hum. 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 Vascular patterns of the spinal ganglia under normal and experimental conditions. Same species as a
c Relationships between degree of mitotic activity and denseness of vascular network under normal and experimental conditions. Same species as a
d Vascular patterns in the mesencephalon under normal and experimental conditions. Same species as a
e Vascular patterns in the cranial nerve ganglia. Same species as a
f Relationships between processes of cytodifferentiation and blood vessel development in the adenohypophysis. Same species as a

ROOY, R. E. de; Dr. – Lab. of Med. Chem., Sylvius Labs., State Univ., Wassenaarseweg 72, 2333 AL LEIDEN, 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)

ROOZE, M. A.; M.D. – Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 Rue aux Laines, 1000 BRUXELLES, Belgium
a Effects of cytosine arabinoside and of hadacidine on limb morphogenesis in vivo and in vitro (morphology, histochemistry). Mus musculus (Rodentia)
b Effects of electromagnetic stimulation on limb morphogenesis in vitro. Same species as a

ROSATI LAMPARIELLO, Ms. F.; Prof. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy

ROŚCISZEWSKA, Ms. E. Romanowska; Dr. – Zool. Dept., Jagellonian Univ., ul. Karasia 6, 30-060 KRAKÓW, Poland
a Differentiation of primary dorsal organ cells. Tetrodontophora bielanensis (Collembola)

ROSS, J. R. W.; 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 Action of heterogeneous inductors on embryonic ectoderm. Gallus domesticus (Aves)
b Early embryonic development including immunology. Same species as a

ROTT, Ms. N. N.; Cand.biol.sci. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Desynchronization and changes in the rate of cell divisions during the pregastrula period. Misgurnus fossilis, Coregonus peled, Cyprinus carpio (Teleostei), Abystoma mexicanum (Urodela)

ROUSSEAU-MERCK, Ms. M. F.; D.Sc. – Groupe de Rech. de Pathol. Pédiat., INSERM U77, Hôpital Necker Enfants Malades, 149 Rue de Sèvres, 75730 PARIS Cedex 15, France
a Transplantation of human embryonic tumors to the nude mouse: 1. host-tumor interaction studied with specific isozymes; 2. differentiation of embryonic tumors during successive transplantations with respect to the appearance or disappearance of certain biochemical markers. Mus musculus (Rodentia), Homo sapiens (Primates) (with A. KAHN)

ROUSSEL, C.; Dr.Méd. – Lab. d'Embryol., U.E.R. Bioméd., Univ. Paris V (René Descartes), 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)

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)

RUANO GIL, D.; Dr., Prof. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, Spain
a Development of neural retina and lens. Gallus domesticus (Aves)
b Experiments on the development of the joints. Same species as a
c Biochemical changes in cerebrospinal fluid during embryonic development. 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, USSR

RUCH, J. V.; Dr.Méd., D.Sc., Prof. – Inst. de Biol. Méd., Univ. L.Pasteur, 11 Rue Humann, 67085 STRASBOURG Cedex, France
a Epithelial-mesenchymal interactions in teeth. Mus musculus (Rodentia)
b Cell kinetics during odontogenesis. Same species as a

RUMPLER, Y.; M.D., Ph.D., Prof. – Inst. d'Embryol., Fac. de Méd., Univ. de Strasbourg, 11 Rue Humann, 67000 STRASBOURG, France
a Chromosomal development and meiosis in hybrids. (Insectivora), all Malagasy and African species of Lemuridae, Indridae, Lepilemuridae, Galagidae, Lorisidae (Primates)
b Chromosomal pathology in development. Homo sapiens (Primates)

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 Cell surface changes in the differentiation of isolated hepatocytes. Same species as a

RUSU, Ms. V. M. – Biol. Res. Ctr., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania
a Influence of unusual incubation temperature on development of antibody-forming cells. Gallus spec. (Aves)

RUVINSKY, A. O.; D.Sc. – Inst. of Cytol. and Genet., USSR Acad. of Sci., Siberian Dept., 630090 NOVOSIBIRSK, USSR
a Developmental and evolutionary aspects of dormant genes
b Developmental genetics of silver-black coat colour mutations; different pleiotropic effects of these mutations including pathological and lethal. Vulpes fulvus (Carnivora)
c Asexual and sexual reproduction; developmental genetics of isozymes. Daphnia pulex (Cladocera, Crustacea)

RYABININA, Ms. Z. A.; Cand.biol.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, USSR

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 (QO_2) of the developing fruit, ovule, embryo, coat and endosperm tissue. (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, Sahlistr. 8, 3012 BERN, Switzerland
a Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Xenopus laevis (Anura) (with R. WEBER)

RZEHAK, 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)

SAADE-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 waltl (Urodela)
b Les interactions tissulaires au cours de la néphrogenèse. (Anura)

SAAG, P. T. van der; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 S. W. de LAAT, W. H. MOOLENAAR, J. BOONSTRA, C. L. MUMMERY, E. J. J. van ZOELEN and S. A. NELEMANS)
b Biosynthesis of soluble proteins in early development (isoelectric focusing, autoradiography). (Amphibia) (with S. K. BRAHMA, State Univ. of Utrecht)

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 (Ascidiacea)

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 (Bivalvia), Goniodiscus rotundatus, Deroceras reticulatum (Gastropoda)

SADOKOVA, Ms. I. E.; Cand.biol.sci. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, USSR
a Role of neurotransmitters (serotonin, catecholamines) and their interaction with cyclic AMP and cyclic GMP in early embryogenesis. Strongylocentrotus droebachiensis, S. intermedius (Echinoidea)

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)

SAKHAROVA, Ms. N. Yu.; Cand.sci. – Chair of embryol., Biol. Fac., Moscow State Univ., Lenin Hills, 117234 MOSCOW, USSR
a Interaction of nucleus and cytoplasm in early development. Drosophila melanogaster (Diptera)
b Changes in the central nervous system in regenerating and asexually reproducing animals. Dugesia dorotocephala, D. tigrina (Turbellaria)

SAKUN, Ms. O. F.; Cand.biol.sci. – Lab. of Exp. Ichthyol., Biol. Inst., Leningrad State Univ., Stary Peterhof, LENINGRAD 198904, USSR
a Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei)
b Mechanisms of hormonal regulation of oocyte maturation in vitro. (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, USSR

SALAUN, 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)
d La différenciation de l'oeil dans une souche anophthalmique (culture in vitro, greffe in utero). Même espèce comme b

SALMONS, S.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

SALÓ, E. – Dept. de Genet., Fac. de Biol., Univ. de Barcelona, Plaça Universidad, BARCELONA-7, Spain
a Isolation and characterization of morphogenetic factors involved in growth and regeneration. Dugesia tigrina (Turbellaria)

SALONEN, J. E. K.; B.M. – Lab. of Exp. Embryol., 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, 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., M.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 par l'ypérite azotée (chlorethylamine). Gallus spec. (Aves)
b Recherches sur la genèse des malformations de membres. Gallus domesticus (Aves)
c Teratological studies on a mutant. Mus musculus (Rodentia)

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)
b Erythrocytic polymorphism determination. Same species as a, and Mus musculus (Rodentia)

SANDER, K.; Ph.D., Prof. – Biol. Inst. I (Zool.) der Univ., Alberstr. 21a, 78 FREIBURG, B.R.D. (Germany)

a Early stages of embryogenesis: epigenetics of segment pattern, blastokinesis. Euscelis plebejus (Cicadina, Homoptera), Drosophila and other spp. (Insecta)

SANDOR, S.; Dr.med. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMIŞOARA, Rumania

a Experimental teratology; transfer and culture of embryos. Mus musculus, Rattus norvegicus (Rodentia)

b Experimental alcoholic embryopathy. Same species as a

c 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

SAN MOLINA, J.; Lic.en Med. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, Spain

a Effect of antiandrogens on differentiation of male genital apparatus. Rattus spec. (Rodentia)

SANTAMARIA, P.; Ph.D. – Ctr. de Génét. Moléc. du C.N.R.S., 91190 GIF-sur-YVETTE, France

a Heat shock induced phenocopies of dominant mutants of the bithorax complex. Drosophila melanogaster (Diptera)

SANTER, R. M.; Ph.D. – Dept. of Anat., Univ. Coll., P.O. Box 78, CARDIFF CF1 1XL, Wales, U.K.

a Morphological development of the heart and coronary vasculature. Scomber japonicus (Teleostei)

SANTORO D'ANGELO, Ms. L.; Prof. – Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy

SARDET, C.; D.Sc. – Stat. Marine de Villefranche sur Mer, Univ. Paris VI, 06230 VILLEFRANCHE–sur Mer, France

a Fertilization and egg polarity. Paracentrotus lividus (Echinoidea)

SARZALA, Ms. M. G.; Ph.D. – Nencki Inst. of Exp. Biol., 3 Pasteur St., 02-093 WARSZAWA, Poland

a Development of muscle biomembranes

SAUER, H. W.; Dr.rer.nat., Prof. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw.biol., 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 (Myxomycetes)

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)

SAXÉN, L. O.; M.D., Phil.lic., Prof. – Lab. of Exp. Embryol., Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with 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, 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, Gubkin St. 3, 117809 GSP-1, MOSCOW B-333, U.S.S.R.

a Developmental study of mutant gene effects on cell proliferation and differentiation. Mus musculus (Rodentia)

b Gene interaction in development. Same species as a

SCARANO, E. – Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, ARCO FELICE, C.P. 3042, 80100 NAPOLI, Italy

a Enzymatic modification of DNA and control of the synthesis of DNA enzymes in the embryo. (Echinoidea)

SCHÄFER, U. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF 1, 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)

SCHARLOO, W.; Ph.D., Prof. – Dept. of Popul. and Evol. Biol., Genet. Inst., Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands

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

SCHEL, J. H. N.; Ph.D. – Dept. of Plant Cytol. and Morphol., Agric. Univ., Arboretumlaan 4, 6703 BD WAGENINGEN, Netherlands

a Ultrastructure and histochemistry of cytodifferentiation during embryo and endosperm development. Zea mays (Gramineae)

SCHELLER, K.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw. biol., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)

a Influence of ecdysteroids and juvenile hormone on the regulation of transcription; changes in gene expression during larval development. Calliphora erythrocephala (Diptera)
b Regulation of the expression of the gene for calliphorin, a marker protein during development. Same species as a

SCHENKEL, Ms. H.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw.biol., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)
a Influence of ecdysteroids on the regulation of transcriptional activity (DNA-dependent RNA polymerases) during larval development. Calliphora erythrocephala (Diptera)

SCHERFT, J. P.; M.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 2333 AA 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)
b Influence of diphosphonates on calcification in radii of 15-day embryos. Same species as a

SCHERINI, Ms. E. – Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy
a Effect of maternal protein malnutrition on pre- and postnatal cerebellum (histogenesis), especially cytochemical maturation of Purkinje cells. Rattus norvegicus (Rodentia)
b Histochemistry of placenta after protein malnutrition. Same species as a

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

SCHEUER, J. L.; Ph.D. – Dept. of Anat., St.Thomas's Hosp. Med. School. LONDON SE1 7EH, England
a Development of striated muscle in the fetus. Homo sapiens (Primates)
b Development of peripheral nervous tissues in the fetus. Same species as a

SCHIEBLER, Th.H.; Dr.med., Prof. – Anat. Inst. der Univ., Koellikerstr. 6, 8700 WÜRZBURG, B.R.D. (Germany)
a Electron microscopy of the full-term placenta. Homo sapiens (Primates)
b Development of the median eminence and the neural lobe. Rattus norvegicus (Rodentia)
c Postnatal development of the kidney. Same species as b

SCHILT, J.; D.Sc. – Lab. de Zool., Fac. des Sci., 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, Leobenerstr. NW 2, Postfach 330440, 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. Rattus rattus (Rodentia)

SCHMID, V. S.; Dr.phil. – Zool. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
a Differentiation potentialities of cells. (Hydrozoa)
b Tissue stability and metaplasia in the development of medusae buds. Podocoryne carnea (Hydrozoa)
c Factors controlling regeneration in medusae. (Hydrozoa)

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.

SCHMIDT, G. H.; Dr.rer.nat., Prof. – Lehrgeb. Entomol. und Ökol., Inst. für Pflanzenkrankh. und Pflanzenschutz, Univ., Herrenhäuser Str. 2, 3000 HANNOVER 21, 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)

SCHMUCKLER, Yu.B. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Role of monoamines in intercellular connections during cleavage divisions. Scaphechinus mirabilis (Echinoidea) (with G. A. BUZNIKOV)

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 imaginale. Calliphora spec. (Diptera)
b État de détermination des disques imaginaux. Calliphora erythrocephala (Diptera)
c Embryogenèse de mutants léthaux. Drosophila spec. (Diptera)

SCHOOTS, A. F. M.; M.Sc. – Dept. of Zool., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands
a Structural and biochemical aspects of the hatching process. Esox lucius (Teleostei)

SCHOPFER, P.; Dr.rer.nat., Prof. – Biol. Inst. II, Lehrst. für Bot., Univ., 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)

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 Lésions par substances toxiques. Gallus gallus (Aves), Mus musculus (Rodentia)

SCHRAUWEN, J. A. M.; Drs. – Sect. Molec. Developm. Biol., Dept. of Bot., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands
a Interaction processes after fusion of different strains. Physarum polycephalum (Myxomycetes)

SCHREIBER, B.; Prof. – Ist. di Zool., Univ. di Parma, Via Università 12, 43100 PARMA, Italy

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)
b Frequency and type of epithelia remnants (cyst) and temporary epithelial proliferations (without function) in the oral cavity during fetal development

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. (Urodela), Xenopus laevis (Anura)
b Regulation of the skin diffusional permeability to water by hormones during metamorphosis. Same species as a
c Regulation of thyroid activity. Ambystoma mexicanum (Urodela), Rana esculenta, R. temporaria Xenopus laevis (Anura)

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. Inst. der Univ. Zürich, Winterthurerstr. 190, 8057 ZÜRICH, Switzerland

SCHWARTZ, V.; Dr.rer.nat., Prof. (Emer.) – Wolfgang Stock Str. 2, 7400 TÜBINGEN, B.R.D. (Germany)
a Synthetic activity of the components of the macronucleus in the cell cycle. Paramecium bursaria (Ciliata)

SCHWEIGER, H. G.; Dr.med., Prof. – Max-Planck Inst. für Zellbiol., Rosenhof, 6802 LADENBURG bei Heidelberg, 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 Co-operation 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

SCOPELLITI, R.; Dr.Biol.Sci. – Ist. di Zool. "F. Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
a Activation of protein synthesis during embryonic development. Bufo bufo (Anura)
b Electrophoresis of acetylcholinesterases in embryonic adrenal glands. Same species as a, and Gallus domesticus (Aves)

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., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
a Role of peptide antibiotics during development. Bacillus spec. (Bacteria)
b Biochemical and hormonal aspects of regulation of metabolism in rapidly changing developmental systems: dormancy/germination and oocyte maturation/fertilisation
c Hormonal control of hepatic enzymes in development

SEDLÁČEK, J.; M. D., Ph.D. – Div. of Embryophysiol. CNS, Res. Lab. of Psychiat., Charles Univ., Albertov 5, 128 00 PRAHA 2, Czechoslovakia
a Neuropharmacology of embryonic spontaneous motility. Gallus domesticus (Aves)
b Spontaneous activity of spinal motor neurons in decapitated embryos (neuropharmacology). Same species as a
c Participation of catecholaminergic and serotoninergic systems in the functional central structure of embryonic spontaneous motility. Same species as a

SEICHERT, V.; MUDr., Doc. – Dept. of Anat., Charles Univ., U.nemocnice 3, 128 000 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, B.R.D. (Germany)

SEKERIS, C. E.; Prof. – Ctr. of Biol. Res., Natl. Hellenic Res. Found., Vassil. Konstantinou 48, ATHENS 501/1, Greece
a Transcription of DNA from epidermis by DNA-dependent RNA polymerases. Calliphora erythrocephala (Diptera)
b Translation of mRNA in a 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)

SELLER, 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 actiology 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 Experimental studies of cleavage and morphogenesis. Triturus alpestris (Urodela), Xenopus laevis (Anura)

SEMBRAT, K.; Ph.D., D.Sc., Prot. (Emer.) – Inst. of Zool., Univ. of Wrocław, ul. Sienkiewicza 21, 50-335 WROCŁAW, Poland
a Cytology and cytochemistry of partial metamorphosis. Triturus spec. (Urodela)
b Cytology and cytochemistry of gametogenesis. Embletonia pallida (Opisthobranchia, Gastropoda)

SENATORI, Ms. O.; Dr.biol. – Ist. di Zool. "F. Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy
a Activation of protein synthesis during embryonic development. Bufo bufo (Anura)
b Electrophoresis of acetylcholinesterases in embryonic adrenal glands. Same species as a, and Gallus domesticus (Aves)

SENGEL, Ph.; D.Sc., Prof. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53 X, 38041 GRENOBLE Cedex, 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 and transmission electron microscopy of dermal and epidermal cell morphology and contacts during feather development. Same species as a

SENSENBAUGH, T. M.; B. A. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Gamete morphology and reproductive biology. (Invertebrata)

SENTEIN, P.; Dr.méd., D.Sc., Prof. – Lab. d'Histol. et d'Embryol., Univ. de Montpellier, 2 Rue École 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)

SERRI, F.; M. D., Prof. – Dept. of Dermatol., Cathol. Univ., Largo Gemelli 8, 00168 ROMA, Italy
a Development of skin and 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 oesophagial 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)

SEYMOUR, Ms. R. M.; Ph.D. – Dept. of Anat., Univ. of Dundee, DUNDEE DD1 4HN, Scotland, U.K.
a Mapping of vascular architecture in the developing brain (9th to 14th day). Mus musculus (Rodentia)

SHAHIN, M. A.; M.Sc. – Dept. of Biol., Semmelweis Univ. of Med., P.O.B. 370, 1445 BUDAPEST, Hungary
a Effect of gonadotropins on embryonic development of gonads. Gallus domesticus (Aves)

SHERBET, G. V.; Ph.D., D.Sc. – Canc. Res. Unit, Univ. Dept. of Clin. Biochem., Royal Victoria Infirmary, NEWCASTLE-upon-Tyne NE1 4LP, 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)

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 alpha-fetoprotein in the prenatal diagnosis of neural tube defects. Homo sapiens (Primates)

SIBOULET, R.; D.Sc. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
a Gene expression in interspecific hybrids. Bufo spec. (Anura) (with F. GASSER)

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.
a Normal eye development. Mertensiella caucasica (Urodela)

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.

SIEBERS, A. M.; Drs. – Bot. Lab., State Univ., Nonnensteeg 3, LEIDEN, Netherlands

SIETSMA, J. H.; Dr. – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN 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., Martinistr. 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. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 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

c DNA replication during cleavage (initiation, asynchrony, enzymes). 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

SIMONI, A.; Dr.biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy

a Immunochemical characterization of yolk precursors. Drosophila spec. (Diptera)

SIMONS, R. F. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a In vitro maturation and in vivo and in vitro fertilization of oocytes; culture of embryos and preservation by deep freezing; development of a non-surgical method for recovery of embryos and the investigation of factors affecting the survival of embryos after non-surgical transfer; factors affecting twinning by egg transfer. Bos taurus (Artiodactyla)

b Methods for collection and transplantation of embryos; factors affecting the viability of embryos and the establishment of pregnancy following egg transfer; culture, storage and deep-freezing of embryos; manipulation of embryos in vitro and sex determination; maturation of oocytes in vitro; basic studies on early embryonic development. Sus scrofa domesticus (Artiodactyla)

SIMPSON, Ms. P.; D.Sc. – Centre de Génét. Moléc. du 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 DANEO, Ms. L. – Dept. of Human Anat., Univ. of Torino, Corso M.d'Azeglio 52, 10126 TORINO, Italy

a Early neuro-muscular contacts in the heart. Gallus domesticus (Aves)

SKOBLINA, M. N. – N. K. Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St 26, MOSCOW 117334, U.S.S.R.

a Effect of gonadotropins on changes in the germinal vesicle and in the oocyte cytoplasm during maturation. (Acipenseridae, Chondrostei; Amphibia)

b Role of karyoplasm in the formation of the mature egg properties. Acipenser stellatus (Chondrostei), Pleurodeles waltl (Urodela), Rana temporaria, Bufo spec. (Anura)

c Mechanism of action of gonadotropic 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 PLZEŇ, Czechoslovakia

a Development of the nasal capsule from an evolutionary standpoint. (Amniota, incl. Homo sapiens)

SLACK, J. M. W.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England

a Pattern formation in early mesoderm. Xenopus laevis (Anura), Ambystoma mexicanum (Urodela)

b Pattern formation in the developing and regenerating limb. Ambystoma mexicanum (Urodela)

SLÁDEČEK, F.; RNDr., D.Sc., Prof. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia

a Cell division in relation to cell determination. (Amphibia) (with A. ROMANOVSKÝ)
b Pigment formation in albinos. (Amphibia) (with A. ROMANOVSKÝ and V. HABROVÁ)

SLATER, C. R.; Ph.D. – Musc. Dystr. Res. Labs., Newcastle Gen. Hosp., Westgate Rd., NEWCASTLE-upon-Tyne NE4 6BE, England
a Development of motor innervation of skeletal muscles, especially formation of neuromuscular junction. Rattus norvegicus, Mus musculus (Rodentia)

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 epipharynx. (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.

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 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, Ms. J. E.; B.Sc. – Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks. SL5 7DE, England
a Establishment and development of exoerythrocytic stages. Plasmodium spec. (Sporozoa)

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)

SMITH, M. W. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

SMORAG, Z.; Ph.D. – Dept. of Anim. Reprod. and A.I., Inst. of Zootechn., 32-083 BALICE/Kraków, Poland
a Freezing of embryos: 1. use of various cryoprotective agents (DMSO, ethylene-glycol, glycerol); 2. two-step procedure with different rates of freezing and thawing; 3. simplifying thawing methods: elimination of the need to remove the cryoprotective agent before transplantation. Mus musculus (Rodentia), Ovis aries, Bos taurus (Artiodactyla)
b In vitro fertilization and isolation of blastomeres. Same species as a

SMYTH, J. D.; D.Sc., 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

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)
c Antigens of differentiation. Same species as a

SOBOTA, A.; Dr. – Dept. of Cell Biol., Nencki Inst. of Exp. Biol., Polish Acad. of Sci., 3 Pasteur St., 02-093 WARSZAWA, Poland
a Induction of cytodifferentiation by calcium, magnesium, thallium and drugs. Acanthamoeba castellanii (Rhizopoda)

SOBOTKA, P.; M.D., D.Sc. – 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)

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.sci. – 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. (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)
c Immunological nature of systemic Candida infection in immunocompromised patients: a chicken embryo model. Gallus domesticus (Aves)

SOLTYŃSKA, Ms. M.; Ph.D. – Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak.Przedmieście 26/28, 00-927/1 WARSZAWA, Poland
a Cell differentiation in development. (Trematoda)
b Ultrastructure of preimplantation blastocyst; differentiation of trophoblast cells. Mus musculus (Rodentia)

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

SPIELMANN, H.; Dr.med. – Inst. für Toxikol. und Embryonalpharmakol., Freie Univ. Berlin, Garystrasse 1-9, 1000 BERLIN 33, B.R.D. (Germany)
a Teratogenic effects of cyproterone acetate and medroxyprogesterone acetate applied before implantation (especially: cleft palate, extended renal pelvis). Mus musculus (Rodentia)
b Higher sensitivity in vivo to cyclophosphamide of inner cell mass compared to trophoblast of the blastocyst before implantation. Same species as a

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.E.; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, Postbus 9516, 2300 RA LEIDEN, Netherlands
a Differentiation and development of imaginal discs: 1. pattern formation; 2. enzyme histochemistry (aldehyde oxidase); 3. model study. Drosophila melanogaster, Calliphora erythrocephala (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, 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 (Hydrozoa)
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 Gonadogenesis. Streptopelia risoria (Aves)

STANFORD, E.; B.Sc. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England
a Pattern formation. Dictyostelium discoideum (Acrasiales)

STANGE, Ms. L.; Dr.rer.nat., Prof. – Arbgr. Pflanzenphysiol., Univ. Kassel, Heinrich-Plett Str. 40, Postfach 101380, 3500 KASSEL, B.R.D. (Germany)
a Meristem activity and structure; influence of growth substances on meristem differentiation. Riella spec. (Hepaticae)
b Differentiation in a system of two isolated dedifferentiating cells. Same species as a

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)

STARCK, J.; Dr.spéc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a RNA synthesis during oogenesis (autoradiography, biochemistry). Caenorhabditis elegans (Nematoda)

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 domestica (Carnivora), Homo sapiens (Primates)
b Possible influence of the hypothalamus on development of morphophysiology of the hypophysis. Same species as a
c Functional development of CRF (corticotropin releasing factor) – ACTH (adrenocorticotropin) axis in the fetus. Rattus norvegicus (Rodentia), Homo sapiens (Primates)
d Development of corticotropin responsiveness of embryonic hypophysis studied in vitro

STAROSTIN, V. I., Cand.biol.sci. – N.K.Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, U.S.S.R.
a Differentiation of haemopoietic and connective tissue cells. Mus musculus, Rattus norvegicus, Mesocricetus auratus (Rodentia)

STARRE, H. van der; Drs.biol. – Dept. of Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, 3512 BK 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 (with S. K. BRAHMA)
f Isoelectric focusing of some enzymes during lens development. Gallus domesticus, Anas platyrhynchos (Aves) (with S. K. BRAHMA)

ŠŤASTNY, 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 Neurons, glial cells and neuropil isolated from the embryonic cerebral hemispheres and from the developing cerebral cortex. Same species as a, and Rattus norvegicus (Rodentia)
c Glucocorticoid regulation of water and electrolyte metabolism in the embryonic brain. Same species as a

STEBBINGS, H.; Ph.D. – Dept. of Biol. Sci., Univ. of Exeter, EXETER EX4 4QG, England

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)

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)
d Retinal and acoustic synaptic systems (electron microscopy). Same species as a

STEGNER, H.-E.; Dr.med., Prof. – Univ.-Frauenklinik, Martinistr. 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)

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
c Localization of mRNA and rRNA in oocytes and eggs by in situ hybridization. Same species as a, and Paracentrotus lividus, Arbacia spec. (Echinoidea)

STENMAN, S.; M.D. – Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Cell surface antigen localisation in differentiation and malignancy of somatic cells
b Cytoskeleton in normal and malignant cells and in differentiated cells. (with I. VIRTANEN and P. LAURILA)
c Development of connective tissue components in foetal dermis. (with V. P. LEHTO and E. LINDER)

STEPANOV, A. S. – Bakh Inst. of Biochem., Acad. of Sci. of the USSR, Leninsky prosp. 33, MOSCOW 117071, U.S.S.R.
a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DETTLAFF and P. E. FELGENHAUER, Inst. of Devl. Biol.)

STÉPHAN, F.; D.Sc., Prof. – Lab. de Zool., Fac. des Sci., 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., Fac. des Sci., 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., Czechosl. Acad. of Sci., Květná 8, 60365 BRNO, Czechoslovakia
a Organogenesis in altricial (nidicolous) and precocial (nidifugous) species. (Insectivora; Rodentia; Carnivora; Artiodactyla)

STERN, C. D.; Ph.D. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England
a Cell movements, cell interactions and cell adhesion of early blastoderm cells in vitro. Gallus domesticus, Coturnix c. japonica (Aves) (with R. BELLAIRS and G. W. IRELAND)
b Electrophysiology of the control of cell shape, cell division and cell movements in the early embryo. Same species as a (with L. F. JAFFE (USA) and L. TURIN)
c Experimental and theoretical studies of polarity and regeneration in early embryos. Same species as a

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. der Univ. Fribourg, Pérolles, 1700 FRIBOURG, Switzerland

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; Dr. – Fac. of Med., State Univ. of Limburg, P.O.Box 616, 6200 MD MAASTRICHT, Netherlands
a Interaction between neurectoderm and target tissues. Gallus domesticus (Aves)
STRANGE, H. K. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England
a In vitro maturation and in vivo and in vitro fertilization of oocytes; culture of embryos and preservation by deep freezing; development of a non-surgical method for recovery of embryos and the investigation of factors affecting the survival of embryos after non-surgical transfer; factors affecting twinning by egg transfer. Bos taurus (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, LEICESTER, England
STREHLER, E.; M.Sc. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Myofibrillogenesis in connection with m-line proteins. Gallus domesticus (Aves)
STROBAND, H. W. J.; M.Sc. – Dept. of Exp. Anim. Morphol. and Cell Biol., "Zodiac", Agric. Univ., Marijkeweg 40, 6709 PG WAGENINGEN, Netherlands
a Differentiation and renewal of intestinal absorptive cells during early development. (Teleostei)
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 Development of regional differences in neural retina and pigment epithelium (synthesis of RNA, electron microscopy). Acipenser stellatus, A. güldenstädti (Chondrostei) (with V. I. MITASHOV)
c Cell cycle in differentiation of retinal pigment epithelium in dependence of intraocular pressure (autoradiography). Same species as a, and Gallus domesticus (Aves) (with L. V. AKHABADZE)
d Action of melanocyte stimulating hormone on eye development. Same species as a (with A. D. BIBIKOVA)
STRÖM, R.; Fil.lic. – 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 périneural et périchordal. Même espèce comme a
e Biochimie, origine et fonction des amines biogènes chordales, régulation neurohumorales chez l'embryon. Même espèce comme a
STURDEE, A. P.; Ph.D. – Dept. of Biol. Sci., Lanchester Polytechnic, Priory St., COVENTRY CV1 5FB, England
a Cell interactions during early embryonic limb development. Triturus cristatus, Ambystoma mexicanum (Urodela)
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 Histogenesis of telencephalon. 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)
b Embryonic neurosecretions. Same species as a, and Clitumnus spec. (Phasmida) (with M. CAVALLIN)
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. – M.R.C. Lab. of Molec. Biol., Hills Rd., CAMBRIDGE CB2 2QH, England
a Postembryonic development. Caenorhabditis elegans (Nematoda)
SUMMERBELL, D.; Ph.D. – Natl. Inst. for Med. Res., The Ridgeway, Mill Hill, LONDON NW7 1AA, England
a Growth and development of the limb; cell interactions in developmental field (mainly experimental embryology). Gallus domesticus, Coturnix c. japonica (Aves)
b Development of peripheral innervation (experimental embryology, electrophysiology, microanatomy). Gallus domesticus (Aves)
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)
SUNDERMANN (MEISTER), Ms. G.; Dr. – Lehrst. für Spez. Zool., Zool. Inst. der Univ., Hüfferstr. 1, 4400 MÜNSTER, B.R.D. (Germany)

a Scanning electron microscopy on the radula of late embryos and newly hatched larvae. Loligo vulgaris, Sepia officinalis, Eledone cirrosa (Cephalopoda)
b Electron microscopy of scattered ciliated sense cells in late embryos. Loligo vulgaris, Sepia officinalis (Cephalopoda)

SURANI, M. A. H.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
a Functional changes in membranes and transport systems; influence of and responsiveness to environmental conditions; parthenogenetic development; activation process of oocytes. Mus musculus, Rattus spec. (Rodentia)
b Implantation: role of uterine luminal components; cell surface interactions between blastocyst and uterine epithelium; uterine sensitization for implantation. Mesocricetus auratus, Rattus spec., Mus musculus (Rodentia)
c Protein glycosylation in preimplantation embryos and inner cell mass cells, role of cell surface glycoproteins in early development and implantation, role of cytoskeleton in early development; differentiation of blastomeres in cleavage-arrested embryos. Mus musculus (Rodentia)
d Affinity of uterine luminal proteins for blastocysts. Rattus spec. (Rodentia)

SUSO VERGARA, S. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, 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 Differentiative and morphogenetic capacities of germ layers; transplantation of isolated germ layers to extrauterine sites. 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)

ŠVEJCAR, 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-deoxycytidine 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 (Urodela) (with 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. Misgurnus fossilis (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, 1095 KJ 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)

SWAN, Ms. A. P.; Ph.D. – Dept. of Struct. Biol., St. George's Hosp. Med. School, Cranmer Terrace, LONDON SW17 0RE, England
a Cell surface properties of primordial germ cells. Xenopus laevis (Anura)

SWANSON (EARTLY), Ms. H. H.; Ph.D. – Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

SWIDERSKI, Z.; Ph.D. – Dept. of Comp. Anat. and Physiol., Univ. of Genève, 3 Place de l'Université, 1211 GENÈVE 4, Switzerland
a Comparative study on gametogenesis, fertilization, cleavage pattern, blastomere differentiation, formation of embryonic envelopes, development of oncospheral hooks and their musculature, development of penetration glands, reduction in the number of oncospheral cells, differentiation of germ cells, functional ultrastructure of the oncosphere (electron microscopy, histochemistry). (Cestoda)
b Gametogenesis, fertilization, blastomere differentiation, cytodifferentiation of miracidium, functional ultrastructure of miracidium (electron microscopy, histochemistry). Schistosoma mansoni, S. japonicum, S. haematobium (Trematoda)

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)

SZABAD, J.; Ph.D. – Inst. of Genet., Biol. Res. Ctr., Hung. Acad. of Sci., P.O.Box 521, 6701 SZEGED, Hungary
a Genetic regulation of hypodermis differentiation in larva and adult, studied in gynandromorphs and mutations affecting tissue differentiation. Drosophila melanogaster (Diptera)
b Molecular mechanism of mitotic recombination: 1. phenomena associated with it like cell death inducibility by chemicals, UV etc.; 2. connection with regeneration, analysis of the germ line etc. Same species as a

SZASZOVSZKY, Ms. E. – Inst. for Drug Res., 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

SZÖLLÖSI, D.; Ph.D., Assoc.Prof. – Lab. de Physiol. Anim., Ctr. Natl. de Rech. Zootechn., I.N.R.A., 78350 JOUY-en-JOSAS, France
TABAN, C. H.; M.D., Ph.D. – Clin. Psychiat. Univ. de Bel-Air, 1225 CHÊNE-BOUGERIES, Genève, Switzerland
a Possible implications of nucleotides during limb regeneration. Triturus cristatus (Urodela)
b Possible actions of neuropeptides during regeneration. Hydra spec. (Hydrozoa)
TADDEI, C.; Dr. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy
a Relationships between follicle cells and the growing oocyte, especially differentiation and function of pyriform cells. Lacerta s. sicula (Lacertilia)
b Arrangement of ribosomes in the crystalline structures called "ribosomal bodies", during oogenesis. Same species as a
TÄHKÄ, Ms. E. S.; M.A. – 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. – Lab. de Zool. Exp., Univ. Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Descriptive and experimental embryology (Collembola)
b Determination and ultrastructural differentiation of the dorsal organ pattern. Same species as a
c Embryonic development of the cephalic endocrine system. Same species as a
TARDENT, P.; Dr.phil., Prof. – Zool. Inst. der Univ., Winterthurerstr. 190, 8057 ZÜRICH, Switzerland
TARIN, D.; M.D. – Dept. of Pathol., Radcliffe Infirmary, OXFORD, 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. – 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 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
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.
TEI, Ms. S.; Dr. – Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy
a Scanning electron microscopy of the cocoon shell. 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.; Prof. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, 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, 9751 NN HAREN, 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 waltl, 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 Role of neurotransmitters (serotonin, catecholamines) in early embryogenesis. Strongylocentrotus dröbachiensis, S. nudus, S. intermedius, Paracentrotus lividus, Arbacia lixula, Sphaerechinus granularis (Echinoidea) (with G. A. BUZNIKOV)
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)

TESTA-BAPPENHEIM, I.; Dr.med., Prof. – Ist. e Lab. Antropol., Univ. di Camerino, Via F. 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
d Genetics and morphology of a third kind of twins. Same species as b

TEWARI, Ms. N.; M.Sc. – Inst. d'Histochim. Méd., Univ. Paris V (René Descartes), 45 rue des St.Pères, 75270 PARIS Cedex 06, France
a Fluor in developing teeth. Rattus spec. (Rodentia)
b Bismuth and encephalopathy before and after birth. Same species as a

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

THESINGH, Ms. C. W.; Dr. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 2333 AA LEIDEN, Netherlands
a Development and function of ultimobranchial body in organ culture. Gallus domesticus (Aves)
b Origin and function of cysts in ultimobranchial body and parathyroid in embryo. Gallus domesticus, Coturnix c. japonica (Aves)
c Resorption of cartilage in the formation of the marrow cavity in long bones. Mus musculus (Rodentia)

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., 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, 38041 GRENOBLE Cedex, France
a Epithelio-mesenchymal interaction and proliferation during cutaneous wound healing in the embryo. Gallus gallus (Aves)

THIÉBAUD, Ch.H.; Ph.D. – Stat. de Zool. Exp., Univ. de Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Regulation of rDNA amplification during oogenesis. Xenopus laevis (Anura)
b Origin of thymic lymphocytes. Same species as a
c Experimental gynogenesis by hydrostatic pressure. Same species as a

THIERY, J. P.; 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 Molecular mechanism of neural crest cell migration. Gallus gallus, Coturnix c. japonica (Aves)
b Ontogeny of the cell adhesion molecule in early embryogenesis. 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

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
b Ultrastructural changes in the yolk sac. Cavia porcellus (Rodentia)

THIRIOT-QUIÉVREUX, Ms. C.; D.Sc. – Stat. Marine de Villefranche sur Mer, Univ. 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.; D.Sc., Prof. – Dept. of Anat. and Exp. Pathol., Univ. of St.Andrews, Bute Med. Bldgs., ST.ANDREWS KY16 9TS, Fife, Scotland, U.K.
a Development of haematopoietic and lymphoid tissues with particular reference to hepatic haematopoiesis

THOMSON, I. – Dept. of Biol., Napier Coll., EDINBURGH, Scotland, U.K.
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, J. F. JACKSON (Edinburgh), and R. WILLIAMSON (London))

THÖRNEBY, L. I.; Fil.Kand. – Inst. of Zoophysiol., Univ. of Lund, Helgonavägen 3B, 223 62 LUND, Sweden
a Proteins and enzymes in intracellular yolk granules. Gallus gallus (Aves)
b Teratology of early embryos, effects of aromatic amino acids. Same species as a

THOROGOOD, P.; Ph.D. – Dept. of Biol., Univ., Med. & Biol. Sci. Bldg., SOUTHAMPTON SO9 3TU, England
a Differentiation of skeletal connective tissue cells. Gallus domesticus (Aves)
b Differentiation of neural crest. Various spp. (Aves; Mammalia)

THORS, F.; Drs. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, 6500 HB NIJMEGEN, Netherlands
a Development of the spinal cord. Xenopus laevis (Anura)

THOUVENY, Y. R.; Dr., Prof. – Lab. d'Histol. 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
TICKLE, Ms. C. A.; Ph.D. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. School, Cleveland St., LONDON W1P 6DB, England
TIEDEMANN, H.; Dr.med., Dr.rer.nat., Prof. – Inst. für Molec. Biol. und Biochem., Fachbereich 1 (Vorklinik), Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
a Molecular mechanisms of determination. (Amphibia)
b Isolation and characterization of morphogenetic factors
TIEDEMANN (WAECHTER), Ms. H.; Dr.rer.nat. – Inst. für Molec. Biol. und Biochem., Fachber.1 (Vorklinik), Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)
a Mechanisms of primary induction. Triturus spec., Ambystoma spec. (Urodela)
TILLMANN, B.; Dr.med., o.Prof. – Anat. Inst. der Univ., Med. Fak., Olshausenstr. 40–60, 2300 KIEL 1, B.R.D. (Germany)
a Development of joints and of larynx (serial sections, scanning electron microscopy). Homo sapiens (Primates)
TIMASHKEVICH, Ms. T. B.; Cand.med.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St.3, MOSCOW 117469, U.S.S.R.
TIMMERMANS, Ms. L. P. M.; Ph.D. – Dept. of Exp. Anim. Morphol. and Cell Biol., "Zodiac", Agric. Univ., Marijkeweg 40, 6709 PG 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, Polycelis 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. (Urodela)
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., Mendeleevsky 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
TONDURY, G.; Dr., Prof. (Emer.) – Stettbachstr. 11, 8702 ZOLLIKON, Switzerland
TONEBY, M. I.; Ph.D. – Pharmacol. Dept., Res. and Devl. Labs., Astra Läkemedel AB, 151 85 SÖDERTÄLJE, Sweden
a Mechanisms of neuron formation. (Echinodermata; Rodentia)
b Drug effects of neurogenesis. Same species as a
TONGE, C. H.; D.D.Sc., Prof. – Dept. of Oral Anat., Dental School, Framlington Place, NEWCASTLE upon Tyne NE2 4BW, 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, 1092 AD AMSTERDAM-O., Netherlands
TÖRÖK, L. J. † Ph.D. – Dept. of Biol., Semmelweis Univ. of Med., BUDAPEST, Hungary
TORRÈS (WINTENBERGER), Ms. S.; D.Sc. – Lab. de Physiol. Anim., Ctr. Natl. de Rech. Zootechn., I.N.R.A., 78350 JOUY-en-JOSAS, France
TOSI, Ms. L.; Dr. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy
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
TOURNEFIER (BRUNSWICK), Ms. A.; D.Sc. – Lab. de Biol. Anim., Univ. Paris VI (P. et M. Curie), 4 Place Jussieu, 75230 PARIS Cedex 05, France
a Ontogenèse de la réponse immunitaire. (Urodela)
TRABUCHET, G.; D.Sc. – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Genetic factors in hemoglobin synthesis; thalassemia. 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)
TRETON, J.; D.Sc. – Unité de Gerontol., INSERM, Rue Wilhelm, PARIS 16e, France
a Unscheduled DNA synthesis in UV-irradiated differentiating lens cells. Gallus gallus (Aves) (with S. P. MODAK, Lausanne and Y. COURTOIS)
TREVISAN, 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, Rana esculenta (Anura), Salamandra salamandra, Triturus spp. (Urodela)

TRNKOVÁ-SVECOVÁ, Ms. E.; RNDr., MUDr. – Dept. of Anat., Charles Univ., U. nemocnice 3, 128 00 PRAHA 2, Czechoslovakia

a Development of the muscles of the hand. (Mammalia)

TRUCKENBRODT, W.; Dr. – Fachber. 5 Biol., Univ., Postfach 4469, 4500 OSNABRÜCK, B.R.D. (Germany)

a Development of "everted" embryos after treatment of eggs with actinomycin D. Odontotermes badius, O. stercorivorus (Isoptera)

b Embryonic and postembryonic development of the gonads 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 Cell surface properties of differentiating cells. Gallus domesticus (Aves), Mus musculus (Rodentia)

TRUSLOVE, Ms. G. M.; Ph.D. – Dept. of Human Genet. and Biometry, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England

TSANG, A. S.; Ph.D. – Mill Hill Labs., Imp. Canc. Res. Fund, Burtonhole Lane, LONDON NW7 1AD, England

a Developmentally regulated cyclic AMP binding proteins: 1. characterisation and purification; 2 biochemical and genetic evidence for involvement in gene expression during development. Dictyostelium discoideum (Acrasiales)

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 Development of neurosecretory cells in the brain. Tenebrio molitor, Dendroctonus micans (Coleoptera)

TUCHMANN-DUPLESSIS, H.; Prof. – Lab. d'Embryol., U.E.R. Bioméd., Univ. Paris V (René Descartes), 45 Rue des Sts.Pères, 75270 PARIS Cedex 06, France

a Anencéphalie. Homo sapiens (Primates)

b Tératogenèse 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 alcaloides 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 F2-alpha sur la gestation. Mêmes espèces comme e (avec L. MERCIER)

TUFFREY, Ms. M. – Dept. of Embryol. and Foetal Devl., Clin. Res. Ctr., Watford Rd., HARROW, Middlesex HA1 3UJ, England

a Interaction between factors inducing tumor susceptibility and those leading to tumour resistance (embryo transfer and aggregation). Mus musculus (Rodentia)

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 Devl. Biol., Inst. of Exp. Morphol., Acad. of Sci. of the Georgian SSR, Chiaureli St. 2, 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), Mus musculus, Rattus norvegicus (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 Endopolyploidy in the antipodals. Ranunculus penicillatus, R. peltatus (Ranunculaceae)

b Embryology. Ranunculus fluitans (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)

b Chromosome ultrastructure. Homo sapiens (Primates)

TURIN, L. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England

a Electrophysiology of the control of cell shape, cell division and cell movements in the early embryo. Gallus domesticus, Coturnix c. japonica (Aves) (with L. F. JAFFE (USA) and C. D. STERN)

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)

c Cell recognition in myogenesis

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

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

TURPAEV, T. M.; Dr.biol., Prof. – Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Pharmacology of the role of biogenic monoamines in early embryos. Arbacia lixula, Paracentrotus lividus (Echinoidea) (with G. A. BUZNIKOV)
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.
a Comparative study of adenohypophysis development in the embryo. Various spp. (Passeres, Aves)
TYSZKIEWICZ, Ms. K.; D.Sc. – Zool. Dept., Jagellonian Univ., ul.Karasia 6, 30–060 KRAKÓW, Poland
a Embryogenesis of nervous system. Tetrodontophora bielanensis (Collembola)
UBBELS, Ms. G. A.; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Cytochemistry, electron microscopy (with J. G. BLUEMINK), and cinematography (with K. HARA) of the origin of dorso-ventral polarity of the egg: 1. role of cytoskeleton in directive transport of cytoplasm, including pigment, and in establishment of dorso-ventrality (with K. RZEHAK and J. KLAG, Kraków); 2. other factors involved in cytoplasmic segregation. Xenopus laevis, Discoglossus pictus (Anura)
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 Light and electron microscopy of oogenesis. Isoodon macrourus (Peramelidae), Trichosurus vulpecula (Phalangeridae), Sarcophilus harissii (Dasyuridae, Marsupialia)
c Origin of primordial germ cells and gonadogenesis (light microscopy). Isoodon marcrourus, I. obesulus, Perameles nasuta (Marsupialia)
UNGER-ULLMANN, Ms. C.; Dr.phil. – Inst. für Molek.-biol., Österreich. Akad. der Wissenschaften, Billrothstr. 11, 5020 SALZBURG, Austria
a Characterization of histones in differentiating lens cells. Gallus gallus (Aves) (with S. P. MODAK, Lausanne)
URBANI, E.; Prof. – I.Chair of Histol. and Embryol., Fac. of Sci., Univ. of Roma. Città Universitaria, 00185 ROMA, Italy
URSPRUNG, H.; Ph.D., Prof. – Swiss Fed. Inst. of Technol., 8092 ZÜRICH, Switzerland
UYLINGS, H. B. M.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Adaptability of the nervous system of adult organisms, compared with normal development. Rattus norvegicus (Rodentia)
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 submicroscopic 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)
VACELET, J. – Stat. Marine d'Endoume, Univ. d'Aix-Marseille, Rue de la Batterie des Lions, 13007 MARSEILLE, France
a Descriptive gametogenesis and embryonic development (light and electron microscopy). Neocoelia crypta (Sphinctozoa, Porifera)
b Description of the development (electron microscopy). Grantia compressa (Calcarea, Porifera) (with M. F. GALLISSIAN)
VAGNETTI, Ms. D.; Dr. – Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy
a Action of antiandrogens on the ultrastructure of male genital organs. Cavia porcellus (Rodentia)
b Scanning electron microscopy of the cocoon shell. Dugesia lugubris (Turbellaria)
VAHERI, A. – Lab. of Exp. Embryol., Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
VAHS, W.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
a Ultrastructure of embryonic cells undergoing induction and differentiation. Triturus vulgaris (Urodela)
b Amitosis in liver and other organs (polyploidization in embryos and larvae). (Vertebrata)
c 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)
VALEMBOIS, P.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Genetics of histocompatibility: in vivo and in vitro incompatibility reactions, ontogeny, molecular basis, genetic determinations and relations. Eisenia foetida (Oligochaeta), (Sipuncula)
VALKEMA-PORRENGA, Ms. F. C.; Drs. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 2333 AA 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 Ageing in primary culture of embryonic fibroblasts: cell membrane morphology (SEM) and permeability, microtubules and microfilaments (TEM, biochemistry), nucleolar metabolism (autoradiography, biochemistry, TEM). Mus musculus (Rodentia)
VANNEREAU, Ms. A. – Lab. de Biol. Cell., Fac. de Pharm., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENEY-MALABRY, France
a Gametogenesis, embryogenesis, formation of haustorium (ultrastructure). (Plantaginaceae, Angiospermae)
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, Hydrozoa; Tricladida, Turbellaria; Serpulidae, Polychaeta)
d Nervous system and neurosecretion in asexual reproduction, sexual differentiation and regeneration. Hydra spec., Chlorohydra viridissima (Hydroidea), Dugesia spec., Polycelis 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
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 FRIBOURG, Switzerland
a Teratogenic action of fluoride. Gallus gallus (Aves)
VASSALL ADAMS, P. R.; Ph.D. – Dept. of Anat., St.Thomas's Hosp. Med. School, LONDON SE1 7EH, England
a Developing conducting system in the heart in relation to induced ventricular septal defects. (Aves)
b Ultrastructure of the conducting tissue. (Aves), Homo sapiens (Primates)
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. – N. K. Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Meiosis and duration of meiotic phases. Mactra spec. (Bivalvia), Strongylocentrotus spec. (Echinoidea)
b History of meiosis research. (Animalia)
VEDDER, F. D.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
a Protein metabolism during limb regeneration. Triturus vulgaris, T. alpestris (Urodela)
VELA FERNÁNDEZ, J. A. – Dept. de Genet., Fac.de Biol., Univ. de Barcelona, Plaça Universidad, BARCELONA-7, Spain
a Shell-gland induction (RNA synthesis inhibitors and autoradiography; blastomere deletion; lithium chloride treatment). Physa acuta, Lymnaea stagnalis (Gastropoda)
b Effects of endogamy in development. Same species as a
VELTMAN, W. A. M.; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands
a Adaptability of the nervous system of adult organisms, compared with normal development. Rattus norvegicus (Rodentia)
VENNEMAN, W.; Drs. – Lab. of Anat. and Embryol., Vrije Univ., v.d.Boechorststr. 7, 1081 BT AMSTERDAM, Netherlands
a Teratology of cyclopia and palate clefts. Sus scrofa, Bos taurus (Artiodactyla), Homo sapiens (Primates)
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
VERDONK, N. H.; Ph.D., Prof. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH UTRECHT, Netherlands
a Germinal localization in eggs. Various spp. (Mollusca)
b Cellular interactions in early development. Various spp. (Mollusca)
c Ultrastructural organisation of the plasma membrane and associated cytoplasmic elements: its role in early development. (Mollusca) (with J. G. BLUEMINK, Hubrecht Lab., J. A. M. v.d. BIGGELAAR and M. R. DOHMEN)
VERHOFSTAD, A. A. J.; Med.drs. – Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, 6500 HB MIJMEGEN, Netherlands
a Differentiation of epinephrine- and nor-epinephrine-containing cells in the adrenal medulla (histochemistry). Rattus spec. (Rodentia)
VERMEULEN, C. A.; Dr. – Dept. of Devl. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN HAREN (Gr.), Netherlands
a Biochemistry of wall formation. Schizophyllum commune (Basidiomycetes, Fungi)
VERNA, J. M.; Dr.spéc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, 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)

VERWER, R. W. H.; Dr. – Netherl. Inst. for Brain Res., IJdijk 28, 1095 KJ AMSTERDAM, Netherlands

a Adaptability of the nervous system of (adult) organisms, compared with normal development. Rattus norvegicus (Rodentia)

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 KÖLN 41, B.R.D. (Germany)

a Biochemical aspects of differentiation. 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, Postbus 9516, 2300 RA 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

VILAIN, J. P. – Lab. d'Embryol., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650 VILLENEUVE D'ASCQ, France

a Déclenchement de la maturation des ovocytes; évolution de la perméabilité ionique membranaire pendant la maturation. Pleurodeles waltl, Ambystoma mexicanum (Urodela)

VILANOVA TRIAS, J. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 36, Spain

a Stability of differentiation in teratocarcinomas (embryonal bodies) in vivo. Mus musculus (Rodentia)

b Stability of differentiation in epidermal stem cells in vivo. Oryctolagus cuniculus (Lagomorpha)

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.; D.Sc. – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Ultrastructure of spermatogenesis, spermiogenesis, spermatozoa and fertilization. Phallusia spec., Molgula impura, Ascidiella aspersa (Ascidiacea)

VINCE, Ms. M. A.; B.A. – A.R.C. Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England

a Effects of prehatching experience on posthatching behaviour. Gallus domesticus (Aves)

b Effects of prenatal experience on postnatal behaviour. Cavia porcellus (Rodentia), Ovis aries (Artiodactyla)

VIRTANEN, I. – Lab. of Exp. Embryol., Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Cytoskeleton in normal and malignant cells and in differentiated cells. (with S. STENMAN and P. LAURILA)

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 contact protein(s). Same species as a

c Stage and species specificity of contact protein(s). Same species as a

VIZA, D.; M.D. – Lab. d'Immunobiol., Pathol. Gén. et Expér., Fac. de Méd. Pitié-Salpêtrière, 105 Bd.de l'Hôpital, 75634 PARIS Cedex 13, France

VLASTA, B.; Dr. – Dept. of Biol., Charles Univ., Albertov 4, 128 000 PRAHA 2, Czechoslovakia

a Phenotypic interaction of the genetically independent genes determining leg malformation syndromes PL and DPL (dominant-polydactyly-luxate). Rattus norvegicus (Rodentia) (with V. KŘEN)

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)

b Localisation of development-specific metabolic activities. Euscelis plebejus (Homoptera)

c Influences of electric fields on early development. Same species as a, and Smittia spec. (Diptera)

VOGT, H. P.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED NIJMEGEN, Netherlands

a Biochemistry of spermiogenesis. Drosophila hydei (Diptera)

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

VOLLRATH, L.; Dr.med., o.Prof. – Anat. Inst. der Univ., Saarstr. 19-21, 6500 MAINZ, B.R.D. (Germany)

a Development of pineal complex. Mus musculus, Rattus norvegicus, Cavia porcellus, Mesocricetus auratus (Rodentia)

VOON, F. C. T.; Dr. – Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1E 6BT, England

a Characteristics and behaviour of early embryo long- and short-term cultures. Gallus domesticus (Aves)

VOSSEN, J. G. H. M.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiveld, 6525 ED 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, 2311 GP LEIDEN, Netherlands

a Selection on asymmetry in wing development in a ci mutant. Drosophila melanogaster (Diptera)

VRIES, O. M. H. de – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN HAREN (Gr.), Netherlands

a Genome activity during development. Schizophyllum commune (Basidiomycetes, Fungi)

VRIES, S. C. de; Drs. – Dept. of Devl. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN HAREN (Gr.), Netherlands

a Biochemistry of wall formation. 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.; Ph.D. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., ul.Karasia 6, 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 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)

WAINWRIGHT, N. R. – 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. J. BOWER, L. ERRINGTON, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))

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

WAL, U. P. v.d.; Ph.D. – Zool. Lab., State Univ., Transitorium III, Padualaan 8, 3584 CH 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, and Physa acuta (Gastropoda)

d Electron microscopy of cell contacts during cleavage. Same species as c

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)

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 development. Acomys cahirinus dimidiatus, Mesocricetus auratus (Rodentia), Homo sapiens (Primates)

b Role of the mesonephros in the origin and contribution of the somatic cells in the male and female gonad. Oryctolagus cuniculus (Lagomorpha), Mus musculus (Rodentia), Homo sapiens (Primates)

WARTIOVAARA, J. J.; M.D. – Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Early development. Mus musculus (Rodentia)

b Teratocarcinoma differentiation. Same species as a, and Homo sapiens (Primates)

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 Developing ovarian follicles: 1. ultrastructure and cytochemistry; 2. electron probe X-ray microanalysis, especially distribution of free and bound calcium. Mesocricetus auratus (Rodentia)

b Effects of different tissue preparative procedures on ultrastructure

WEBB, F. T. G.; Dr.phil. – Spec. Progr. of Res. in Hum. Reprod., World Health Org., 1211 GENÈVE 27, Switzerland

WEBER, R.; Ph.D., Prof. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. Bern, Sahlistr. 8, 3012 BERN, Switzerland

a Hemoglobin transition in relation to metamorphosis. Xenopus laevis (Anura) (with H. HOSBACH and H. WIDMER)

b Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Same species as a (with G. U. RYFFEL, B. WESTLEY , R. JAGGI and B. FELBER)

WECHSLER, W.; Dr. med., Prof. – Neuropathol. Inst. der Univ., Moorenstr. 5, 4000 DÜSSELDORF, B.R.D. (Germany)

a Developmental neuropathology and neurooncology. Rattus norvegicus, Mus musculus, Mesocricetus auratus (Rodentia), Homo sapiens (Primates)

WEGMANN, R.; Dr.Méd., D.Sc., Prof. – Inst. d'Histochim. 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)

c Bismuth and encephalopathy before and after birth. Rattus spec. (Rodentia)

WEGNEZ, M.; D.Sc. – Centre de Génét. Moléc. du C.N.R.S., 91190 GIF-sur-YVETTE, France

a Mécanismes biochimiques de l'oogenèse. Drosophila melanogaster (Diptera), Xenopus laevis (Anura)

WEIJER, C. J.; Drs. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands

a Role of cell-cell contact in cell differentiation and movement. Dictyostelium discoideum (Acrasiales)

WEISS, R. A.; Ph.D. – Imp. Canc. Res. Fund Labs., Lincoln's Inn Fields, LONDON WC2A 3PX, England

a Effect of retroviruses on cell differentiation. (Aves; Mammalia)

b Inherited viral genomes as models of gene expression. Gallus gallus and other spp. (Phasianidae, Aves)

WELLENSIEK, S. J.; Dr., Ir., Prof. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O.Box 30, 6700 AA 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, 1092 AD AMSTERDAM-O., Netherlands

WENDER, M. B.; M.D., Prof. – Inst. of Neurol. and Sens. Organs, Med. Acad., 49 Przybyszewskiego St., 60-355 POZNAŃ, Poland

a Chemical composition and enzyme activity of developing nervous tissue with special reference to the period of myelination. Laboratory animals, Homo sapiens (Mammalia)

b Wallerian degeneration in the immature optic nerve. Oryctolagus cuniculus (Lagomorpha)

c Influence of transplacental intoxication with ethylnitrosourea on chemistry of developing brain. Mus musculus (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 Role of the hypophysis in hormonal activity of embryonic gonads. Gallus domesticus, Anas platyrhynchos (Aves), Mus musculus, Rattus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

c Onset of meiosis. Gallus domesticus (Aves), Mus musculus, Rattus spec. (Rodentia)

d Role of H – Y antigen in gonadal differentiation. Same species as c

WENSING, C. J. G.; D.V.M., Ph.D., Prof. – Vet. Anat. and Embryol. Inst., State Univ., Bekkerstraat 141, 3572 SG 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 Entomol., Swiss Fed. Inst. of Technol., ETH-Zentrum, Clausiusstr. 21, 8092 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

c Egg activation. Pimpla turionellae (Hymenoptera)

WESSELS, J. G. H.; Dr., Prof. – Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN 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

WESTLEY, B.; Ph.D. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. Bern, Sahlistr. 8, 3012 BERN, Switzerland

a Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Xenopus laevis (Anura) (with R. WEBER, G. U. RYFFEL, R. JAGGI and B. FELBER)

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., Alberstr. 21a, 78 FREIBURG, B.R.D. (Germany)

no work on developmental biology in progress

WHITE, Ms. J.; M.A. – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.

a Divalent cation distribution in glucocorticoid treated cells (chlorotetracycline fluorescence, aequorin luminescence). Gallus gallus (Aves)

WHITE, R. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a Mechanism of action of steroid hormones, at the molecular level, with respect to their control of specific gene expression in sex accessory tissues. (Mammalia)

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

WICK, R. J., Dr.rer.nat. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw.biol., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)

a Characterisation of DNA replication during differentiation by means of density shift with bromodeoxyuridine (BUdR) and radioactive labelling, in sporulating cultures. Physarum polycephalum (Mycetozoa)

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)

WIDMER, H.; lic.phil.nat. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. Bern, Sahlistr. 8, 3012 BERN, Switzerland

a Hemoglobin transition in relation to metamorphosis. Xenopus laevis (Anura) (with R. WEBER)

WIERTZ-HOESSELS, Ms. E. L. M. J.; Dr. – Fac. of Med., State Univ. of Limburg, P.O.Box 616, 6200 MD MAASTRICHT, Netherlands

a Interaction between neurectoderm and target tissues. Gallus domesticus (Aves)

WIGGLESWORTH, Sir V. B.; Dr., Prof. (Emer.) – Dept. of Zool., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EJ, England

no work on developmental biology in progress

WIJK, R. van; Dr. – Dept. of Molec. Cell Biol., State Univ., Transitorium III, Padualaan 8, 3584 CH 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. – M.R.C. Lab. of Molec. Biol., Hills Rd., CAMBRIDGE CB2 2QH, England

a Imaginal disc development and regulation. Drosophila melanogaster (Diptera)

WILD, A. E.; Ph.D. – Dept. of Biol., Univ., Med. and Biol. Sci. Bldg., SOUTHAMPTON SO9 3TU, England

a Protein transmission across foetal membranes. Oryctolagus cuniculus (Lagomorpha)

b Lens regeneration. Xenopus laevis (Anura)

WILDE, A. G. de; M.D., Ph.D., Prof. – Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, 9713 EZ 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)

WILLADSEN, S. M. – A.R.C. Inst. of Anim. Physiol., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

a In vitro maturation and in vivo and in vitro fertilization of oocytes; culture of embryos and preservation by deep freezing; development of a non-surgical method for recovery of embryos and the investigation of factors affecting the survival of embryos after non-surgical transfer; factors affecting twinning by egg transfer. Bos taurus (Artiodactyla)

b Methods for collecting and transplantation of embryos; factors affecting the viability of embryos and the establishment of pregnancy following egg transfer; culture, storage and deep-freezing of embryos; manipulation of embryos in vitro and sex determination; maturation of oocytes in vitro; basic studies on early embryonic development. Sus scrofa domesticus (Artiodactyla)

c Subcellular changes during oocyte maturation including membrane transport, protein synthesis, RNA synthesis, energy requirements and structural reorganization; intrafollicular mechanisms controlling maturation, including effects of gonadotrophins, steroids and intrafollicular inhibitors; effects of biochemical manipulation, RNA and protein inhibition or steroid alterations on subsequent fertilization and early embryonic development; micromanipulation of oocytes and embryos; sex determination; culture, storage and deep-freezing of embryos. Ovis aries (Artiodactyla)

WILLEMSE, M. Th. M.; Ph.D., Prof. – Dept. of Plant Cytol. and Morphol., Agric. Univ., Arboretumlaan 4, 6703 BD WAGENINGEN, Netherlands
a Ultrastructural, histochemical, and comparative study of micro- and macrogametogenesis and fertilization. Thuja occidentalis (Cupressaceae), Pinus sylvestris (Pinaceae), Gasteria verrucosa (Liliaceae)
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
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. – Dept. of Biochem., St.Mary's Hosp. Med. Sch., LONDON, England
a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, J. F. JACKSON and I. THOMSON, Edinburgh)
WILSON, I. B.; Ph.D. – Dept. of Zool., Univ. Coll. of N. Wales, Brambell Labs., BANGOR, Gwynedd LL57 2UW, 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. – Lehrgeb. Entomol. und Ökol., Inst. für Pflanzenkrankh. und Pflanzenschutz, Univ., Herrenhäuser Str. 2, 3000 HANNOVER 21, B.R.D. (Germany)
a Biochemistry of caste determination and oviposition. Formica polyctena, F. rufa (Hymenoptera)
WINTER, G. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 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
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 Przedmiescie 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 Fertilization of zona-free eggs in vitro and pre-implantation development. Same species as a
WITTMANN, D.; Dipl.Biol. – Lehrst. Entw.-physiol., Inst. für Biol. III, Univ., Morgenstelle 28, 7400 TÜBINGEN, B.R.D. (Germany)
a Rearing techniques for worker larvae on partial artificial diet; breeding in indoor flight rooms. Apis mellifera (Hymenoptera)
b Effects of insecticides on larval development. Same species as a
WOELLWARTH, C. von; Dr.phil. – Münchingerstr. 5, 7257 DITZINGEN, B.R.D. (Germany)
WOERDEMAN, M. W.; M.D., Prof. (Emer.) – Ant.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, 1092 AD AMSTERDAM-O., Netherlands
WOLBERT, P.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw. biol., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)
a Mechanism of juvenile hormone action on determination of imaginal characteristics in pupae; correlations and causal relationships between juvenile hormone sensitivity, determination and cell cycle, DNA synthesis and DNA complexity. Galleria mellonella (Lepidoptera)
WOLF, R.; Dr. – Zool. Inst. der Univ., Lehrst.I: Morphol. und Entw.biol., Röntgenring 10, 8700 WÜRZBURG, B.R.D. (Germany)
a Experimental alterations of the cleavage pattern (time lapse, electron microscopy). Wachtliella spec. (Diptera)
b Egg activation and nuclear migration (time lapse, electron microscopy). Pimpla turionellae (Hymenoptera)
c Cell cycle analysis in macroplasmodia (time lapse, electron microscopy). Physarum spec. (Myxomycetes)
WOLF, U.; Dr., Prof. – Inst. für Humangenet. und Anthropol. der Univ., Albertstr. 11, 7800 FREIBURG, B.R.D. (Germany)
a Sex determination and differentiation. (Vertebrata)
WOLFF (HENNIG), Ms. Em.; D.Sc. – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75231 PARIS Cedex 05, 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. Emer., – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75231 PARIS Cedex 05, France
a Culture in vitro de longue durée de tumeurs malignes en présence et en l'absence d'organes embryonnaires. Homo sapiens (Primates)
WOLPERT, L.; Ph.D., Prof. – Dept. of Biol. as Appl. to Med., Middlesex Hosp. Med. Sch., LONDON W1P 6DB, England
WOLTZ, P.; Dr.spéc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
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
c Intracellular proteases: change in activity during life cycle; role in morphogenesis; lignin degradation. Same species as a
d Fruiting initiation, nutrient effects; changes in extracellular enzymes and volatile compounds during fruiting. Agaricus bitorquis, Pleurotus ostreatus, Schizophyllum commune (Basidiomycetes, Fungi)

WOODING, F. B. P.; Ph.D. – A.R.C. Inst. of Anim. Physiol., Babraham, CAMBRIDGE CB2 4AT, England
a Role of binucleate cells in placenta (electron microscopy, autoradiography). Ovis aries, Bos taurus (Artiodactyla)

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 Spitz-Holter valve
c Circumventricular organs and Reissner's fibre. (Mammalia)
d Teratology, especially effects of alcohol and drugs. (Mammalia)
e Scanning electron microscopy study of and production of atlases of normal and abnormal development. (Mammalia)
f Retrospective study of parents of undiagnosed cases of mental defect to determine whether maternal alcoholism in the early stages of human pregnancy is in fact the third commonest cause of mental defect. Homo sapiens (Primates)

WOYKE, J.; Dr.habil., Prof. – Bee Div., Agric Univ., Nowoursynowska 166, 02-766 WARSZAWA 13, 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)
f Developmental genetics; survival rate of brood produced by laying workers, sex of larvae, connection with sex determination and thelytoky. Same species as a

WRBA, H.; Dr.med., Dr.rer.nat., Prof. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, 1090 WIEN, Austria
a Heterotransplantation. (Rodentia)
b 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

WUHRMANN, P.; Dr.chem. – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Ion determination. (Chironomidae, Diptera)

WURM, F.; Dipl.biol. – Abt. Biol., Arb.gr. Entw.physiol. der Tiere, Ruhr Univ., 4630 BOCHUM, B.R.D. (Germany)
a Isolation of gene transcripts of the W-chromosome. Ephestia kuehniella (Lepidoptera)
b Isolation of the W-chromosome and/or its DNA. Same species as a

WURSTER, B.; Dr.rer.nat. – Fachber. Biol., Univ., Postfach 7733, 7750 KONSTANZ, B.R.D. (Germany)
a Stimulation of cell development by chemical signals; signal processing, chemotaxis, oscillations. Dictyostelium discoideum, Polysphondylium violaceum (Acrasiales)

WYLIE, C. C.; Ph.D. – Dept. of Struct. Biol., St.George's Hosp. Med. School, Cranmer Terrace, LONDON SW17 0RE, 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 Ontogeny of proteins in early embryos. Same species as b

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., Prof. – Lehrgeb. Entomol. und Ökol., Inst. für Pflanzenkrankh. und Pflanzenschutz, Univ., Herrenhäuser Str. 2, 3000 HANNOVER 21, 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

YAMADA, T.; D.Sc., Prof. – Unité de Biol. du Dévél., 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

YAZYKOV, A. A.; Cand.sci. – Chair of Embryol., Biol. Fac., Moscow State Univ., Lenin Hills, MOSCOW 117234, U.S.S.R.
a Experimental embryology in vitro. Mus musculus (Rodentia)

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)

YUROWITZKY, Y. G.; D.Sc. – N. K. Koltzov Inst. of Devl. Biol., USSR Acad. of Sci., 26 Vavilov St., MOSCOW 117334, U.S.S.R.
a Biochemistry of differentiation. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)

ZAAYER, Ms. J. J. P.; Ph.D. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, 2333 AA 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 BOLOGNA, Italy
a Hormone 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)
c Neuroendocrine regulation of agamic reproduction. Dugesia gonocephala, D. tigrina (Turbellaria)

ZACCHEI, 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)
b Histochemical characterization of alkaline phosphatase, acid phosphatase and thiamine pyrophosphatase (TPP-ase) activities in relation to protein synthesis in the yolk. Murex brandaris (Gastropoda)

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.

ZANTINGE, A.; Drs. – Dept. of Developm. Plant. Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, 9751 NN 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, 3000 DR 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., Alberstr. 11, 7800 FREIBURG, B.R.D. (Germany)
a Sex determination and differentiation. (Vertebrata)

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

ZILCH, R. – Inst. für Zool., Lehrst. I, Univ. Erlangen-Nürnberg, Universitätsstr. 19, 8520 ERLANGEN, B.R.D. (Germany)
a Comparative embryology. Diastylis rathkei (Cumacea), Penacus trisulcatus, Atyaephyra desmaresti (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)

ZILLES, K. J.; Dr.med. – Anat. Inst. der Univ., Med. Fak., Olshausenstr. 40–60, 2300 KIEL, B.R.D. (Germany)
a Role of spontaneous nerve cell death in the brain; influence of hormones on brain growth (morphometry). Gallus domesticus (Aves), Rattus norvegicus (Rodentia), Homo sapiens (Primates)
b Cell degeneration in the visual system of blind and other strains (quantitative morphology). Astyanax mexicanus (Teleostei)

ZIMA, J.; RNDr. – Dept. of Morphol., Inst. of Vertebr. Zool., Czechosl. Acad. of Sci., Květná 8, 60365 BRNO, Czechoslovakia
a Comparative karyological studies. (Microchiroptera, Chiroptera)

ZISSLER, D.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Alberstr. 21a, 78 FREIBRUG, B.R.D. (Germany)
a Ultrastructure of eggs and embryos. Smittia spec. (Chironomidae, Diptera) and other spp. (Insecta)
b Ultrastructure of spermatogenesis. (Animalia)

ŽIVKOVIĆ, Ms. N.; B.C. – Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. "Boris Kidrič", P.O.Box 522, 11001 BEOGRAD, Yugoslavia
a Non-mendelian inheritance of precocious vagina opening, obtained by X-irradiation of the 6-day embryo. Rattus norvegicus (Rodentia)
b Recovery of all types of blood cells in anemic animals, obtained by parabiotic union with normal animals. Same species as a
c Inheritable hypotrichosis, a recessive syndrom affecting skin, nervous and connective tissue. Same species as a

ŽNIDARIĆ (ĆORIĆ), Ms. D.; Dr.biol. – Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia
a Elimination of zymogen cells and their derivatives by antimite, a cytostatic agent. Pelmatohydra oligactis (Hydrozoa) (with A. LUI)
b Immunological reaction and changes in differentiation and morphogenesis in xenografts. Hydra pirardi, H. pseudoligactis (Hydrozoa) (with A. LUI)

ZOELEN, E. J. J. van; Ph.D. – Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 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 S. W. de LAAT, P. T. v.d. SAAG, J. BOONSTRA, W. H. MOOLENAAR, C. L. MUMMERY and S. A. NELEMANS)

ZONNEVELD, B. J. M.; Dr. – Genet. Lab., State Univ., Kaiserstr. 63, 2311 GP 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.

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)

ZUBRZYCKA, Ms. E.; Ph.D. – Nencki Inst. of Exp. Biol., 3 Pasteur St., 02–093 WARSZAWA, Poland
a Biogenesis of sarcoplasmic reticulum in skeletal muscle during ontogenesis and in tissue culture

ZUCCATOSTA, A.; Dr. – Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy

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.

ZÜST, Ms. B.; Ph.D. – Lab. of Cell Differ., Dept. of Biol., Univ. of Genève, 154 Rte de Malagnou, 1224 CHÊNE-BOUGERIES (Genève), Switzerland
a Gene regulation and determination. Drosophila melanogaster (Diptera)

DIRECTORY OF INSTITUTES
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(geographical order)

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E U R O P E

AUSTRIA

Graz, Zool. Inst. der Univ.
FACHBACH, G.
Salzburg, Österr. Akad. der Wissensch.,
Inst. für Mol. Biol., Abt. Biol.
x KRATOCHWIL, K.
x LUGER, O.
x UNGER-ULLMANN, Ms. C.
Salzburg, Univ. Salzburg,
Lehrk. für Genet. und Entw.biol.
x CZIHAK, G. - Prof.
Lehrk.II, Bot. Inst.
x KIERMAYER, O. - Prof.
Wien, Univ. Wien,
Inst. für Krebsforsch.
x WRBA, H. - Prof., Dir.
x DESSER-WIEST, Ms. L. - Res. Asst.
x ELBLING, Ms. L. - Res. Asst.
x MAZZUCCO, K. - Res. Asst.
x VETTERLEIN, Ms. M. - Res. Asst.

BELGIUM

Antwerpen, State Univ. Ctr.,
Fac. of Sci., Lab. of Anat. & Embryol.
x VAKAET, L.C.A. - Prof.
x CALLEBAUT, M.E. - Docent
x HARRISSON, F. - Asst.
x VAN ROELEN, C. - Asst.
ANDRIES, L. - Asst.

Antwerpen (see also Wilrijk)
Bruxelles, Univ. Libre de Bruxelles,
Fac. de Méd., Lab. d'Anat. et d'Embryol.
Hum.
x MULNARD, J.G. - Prof., Head
PASTEELS, J.J. - Prof. (Emer.)
x MILAIRE, J. - Prof.
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FAUTREZ, J.C. - Prof., Dir.
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x SOBIS, Ms. H. - Sen.Asst.
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Bruxelles, Fac. des Sci.,
Dépt. de Biol. Moléc.
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x BALTUS, Ms. E.J.
x TENCER Ms. R. - Chef de Trav.
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x ALEXANDRE, H.L.
x THOMAS, C.
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x KONDO, M. - Prof.
x PIOT, E. - Asst.

CZECHOSLOVAKIA

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Inst. of Exp. Biol. & Ecol.
x ERDELSKA, Ms. O.
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x KRÁL, B. - Res.worker
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Dept. of Norm. Anat.
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x SOBOTKA, P. - Asst.Prof., Head
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x CHALOUPKA, Z. - Asst.
x ZÁHLAVA, J. - Asst.
x ŠAFANDA, J. - Sci.worker
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x ČIHÁK, R. - Prof.
x DOSKOČIL, M. - Docent
x DYLEVSKÝ, I. - Docent
x LEMEŽ, L. - Docent
x SEICHERT, V. - Docent
x DRUGA, R. - Asst.
x GRIM, M. - Asst.
x MRÁZKOVÁ-ŠEVČIKOVÁ, Ms. O. - Asst.
x TRNKOVÁ-ŠVECOVÁ, Ms. E. - Asst.
Fac. Gen. Med., Dept. of Biol.
x KŘEN, V.
x VLASTA, B.
Inst. of Embryol.
x VACEK, Z. - Prof., Dir.
x KRAUS, R. - Asst. Prof.
x MARTINEK, J. - Asst. Prof.
x JIRSOVÁ, Ms. Z. - Asst.
x ŠEVČENKO, Ms. G. - Asst.
x HACH, P. - Asst.
x BRICHOVÁ, Ms. H. - Asst.
x MANDYSOVÁ, Ms. E. - Asst.
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x SLÁDEČEK, F. - Prof., Dir.
x ROMANOVSKÝ, A. - Assoc.Prof.
x HABROVÁ-VILÍMKOVÁ, Ms. V. - Sen.Asst.
x KNÍŽE, B. - Sen.Asst.
x NEDVÍDEK, J. - Sen.Asst.
x PALEČEK, J. - Sen.Asst.
x KNÍŽETOVÁ-MYSLIVEČKOVÁ, Ms. H. - Asst.
x MÁCHA, J. - Asst.
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x JELÍNEK, R.
x DOSTAL, M. - Asst.
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Inst. of Pharmacol.
x JIŘIČKA, Z. - Scient.
x PŘESLIČKOVÁ, Ms. M. - Asst.
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DENMARK

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Dept. of Anat.
x KNUDSEN, P.A. - Prof., Head
x BUGGE, J. - Lect.
x JOSEPHSEN, K. - Lect.
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x FEJERSKOV, O. - Prof.
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x THESLEFF, I.
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x ANDERSEN, Ms. L. - Assoc.Prof.

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HAMBURGER, Ms. K. - Asst.
Copenhagen, Finsen Inst.
x PETERS, Ms. H. - Head of Dept.
x BYSKOV, Ms. A.G.
x GRINDSTED, J.
x BAGER, Ms. S.M.
Copenhagen, Univ. of Copenhagen, Inst. of Gen. Zool.
x PEDERSEN, K.J. - Lect.
JENSEN, P.V. - Lect.
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x BIRCH-ANDERSEN, A.
State Vet. Serum Lab.
x BLOM, E. - Head of Dept.
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Helsingør, Univ. of Copenhagen, Marine Biol. Lab.
x NIELSEN, C. - Lect.
Roskilde, Roskilde Univ. Ctr.
x FERNHOLM, B. - Prof.

ENGLAND (see UNITED KINGDOM)

FINLAND

Helsinki, State Serum Inst., Centr. Publ. Health Lab.
x ROSTEDT, Ms. I.B.
Helsinki, Univ. of Helsinki, Dept. of Bot.
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x CARAVATTI, M - Asst.
x CHIQUET, M. - Asst.
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x MEYER, Ms. B. - Asst.
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x JONES, K.W. - Lect.
x JURAND, A. - Lect.
x LUCEY, E.C.A. - cinematogr.
x ROBERTSON (PATON), Ms. E.M.
x SELMAN, G.G. - Lect.
x TRUMAN, D.E.S. - Lect.
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x LAWRENCE, A.J. - Sen. Lect.
x EDWARDS, J.G. - Lect.
x MOORES, G.R. - Lect.
x BRADLEY, T.R.
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x DOWNIE, J.R.
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x CHALLONER WHITEN, S.
x EVANS, C.W.

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x KEMP, R.B. - Lect.
x ap GWYNN, I. - Sen. Res. Assoc.
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x WILSON, I.B. - Sen. Lect.
x MORRIS, I.G. - Lect.

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x MOFFAT, D.B. - Prof.
x PRESLEY, R. - Sen. Lect.
x JAMES, Ms. T.M. - Lect.
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MOYSE, J. - Lect.
RATCLIFFE, N.A. - Lect.

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RYABININA, Ms. Z.A. - Sen. Sci.
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x AKHABADZE, Ms. L.V. - Res. Worker
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x IGNATIEVA, Ms. G.M. - Sen.Res.Worker
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x KOSTOMAROVA, Ms. A.A. - Sen.Res.Worker
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x MARTYNOVA, Ms. Z.E.

x MICHURINA, Ms. T.V. - Res. Worker
x MIKHAILOV, A.T. - Res. Worker
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x OZERNYUK, N.D. - Res. Worker
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x BAZITOV, A.A.
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x KASYANOV, V.L.
x KRUCHKOVA, Ms. G.A.
x KULIKOVA, Ms. V.A.
x DROZDOV, A.L.
x ISAEVA, Ms. V.V.

WALES (see UNITED KINGDOM)

YUGOSLAVIA

Yugoslavia

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Lab. Mol. Biol. & Endocrinol.
x MARTINOVITCH, P.N. - Sen. Scient.
x ŽIVKOVIĆ, Ms. N. - Res. Assoc.
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x KOSTOVIĆ, I. - Docent
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x ŠKREB, N. - Prof.
x MILKOVIĆ (ŽULJ), Ms. K. - Prof.
x HERMAN, Č. - Prof.
x LEVAK (ŠVAJGER), Ms. B. - Docent
x MÜLLER, M. - Docent

x KLEPAC, R. - Docent
x SERMAN, D. - Docent
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x PERUZOVIĆ (GRADT), Ms. M.
x CRNEK, Ms. V. - Asst.
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x PIRKIĆ, A.

SUBJECT INDEX

(alphabetical order)

New Headings

Abortions & embryonic death
Electric organ
Free radical
Neuroglia
Optic centre & tracts
Ribonucleoprotein

Headings Cancelled

Cell cycle (see Cell)
Cell death (see Cell)
Cell fusion (see Cell)
Cell heredity (see Cell)
Cell wall (see Cell)
Chimeras (see Genetics)
Cytogenetics (see Chromosome)
Insulin (see Hormones (vertebrates))
Matrix (see Cell)
Membrane (see Cell)
Thyroxine (see Hormones (vertebrates))

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. 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 are printed in capitals. They 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, Genetics (developmental), Reproduction, Pathology (developmental))
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.
5) General subjects: History, Theoretical biology.

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

When a term is referenced to another heading this does not always mean that *in this issue* entries under this heading do indeed refer to the term in question.

Contrary to former practice many headings only show animal and plant names. Comparatively few headings are divided into subheadings but lack organism names. The number of references under each of the subheadings or organism groups can be rather large, but care has been taken not to exceed 50 investigators' names.

Subheadings (if used) are mostly chosen from the following classes of terms:

1) Character of investigation: descriptive, experimental, genetical, cell biological, etc.
2) Stages: gametes, embryo, etc.
3) Organ systems, also placenta, tumours, etc.
4) Developmental processes: differentiation, regeneration, reproduction, teratogenesis, etc.
5) Organism groups other than vertebrates: unicellular organisms, plants, invertebrates. If these subheadings are used all the work on the groups in question is indexed only here, not elsewhere.

Subheadings not belonging to the above classes are to be found under the following headings: Cell, Chemical elements, Chromosome, Gene, Genetics, Hormones (vertebrates), Mutant, Subcellular components, Teratogenesis.

In general subheadings are chosen to encompass a rather broad range of subjects.

Work falling under three or more of the subheadings, or not clearly defined, is classed under the subheading "general, miscellaneous and unspecified" which is not placed alphabetically but immediately following the heading.

Animal and Plant Names

Generally Classes (and in some cases Phyla) are used. Exceptions are: the use of Homo

for work on the human species, and the use of Orders under the following headings: Development (general), Development (larval), Development (postembryonic, fetal), Embryology (general & descriptive), Embryology (experimental), Embryology (physiological & biochemical), Life cycles, Regeneration, Rearing methods, 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, Rearing methods, Regeneration, Reproduction, etc.

ABDOMINAL CAVITY
see Body cavities

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

ABORTIONS & Embryonic Death
see also Malformations; Pathology

Mammalia	Kleinebrecht

ACCESSORY SEX GLANDS
see Reproductive system

ACTIN
see Protein

ACTINOMYCIN
see also Antibiotics

Insecta	Truckenbrodt

ACTIVATION
see Fertilisation

ADAPTATION
see also Environmental factors; Phylogenesis

general	Durand
Amphibia	Briegleb
Homo	Boer
	Dogterom
	Leeuwen
	Swaab
Insecta	Chauvin
	Delay
	Fourche
	Juberthie
Mammalia	Boer
	Dogterom
	Leeuwen
	Sterba
	Swaab
	Uylings
	Veltman
	Verwer

ADHESIVE GLAND
see Gland(s)

ADIPOSE TISSUE(S)
see also Lipid(s)

Insecta	Labour
	Papillon
Mammalia	Mayer

ADRENAL GLAND
see also Chromaffin Cells; Cortisone; Steroids

Amphibia	Accordi
	Milano
	Pehlemann
	Scopelliti
	Senatori
Aves	Scopelliti
	Senatori
Homo	Bukulya
	Gyevai
	Kraus
	Zaayer
Mammalia	Bielanska
	Bukulya
	Gabriel
	Gyevai
	Klepac
	Kraus
	Milkovic
	Mitskevich
	Paunovic
	Peruzovic
	Verhofstad
	Zaayer

AGE (AGING)

Homo	Raekallio
Mammalia	Correa
	Leuba
	Modak
	Raekallio
	Van Gansen

AGGREGATION
see Cell(s)

AIR BLADDER
see Lung(s)

AIR SACS
see Lung(s)

ALIMENTARY TRACT
see Digestive tract

ALKYLATING AGENTS

Aves	Menkes
Mammalia	Menkes
	Pinto
	Spielmann

ALLANTOIS
see Embryonic membranes

AMINE(S)
see also Neurotransmitters

Aves	Lowkvist
Echinoidea	Brachet
Mammalia	Bentyn
Polychaeta	Emanuelsson

AMINO ACID(S)
see also Neurotransmitters

Amphibia	Anton
Aves	Thorneby
Elasmobranchii	Fischer
Euglenophyceae	Salvador
Homo	Challier
Insecta	Chen
	Colln
	Kuthe
Mammalia	Choroszewska
Teleostei	Fischer

AMITOSIS

Amphibia	Pehlemann
Homo	Pehlemann
Vertebrata	Vahs

AMNION
see Embryonic membranes

ANABIOSIS
see Diapause

ANDROGENESIS
see Genetics

ANESTHESIA

Homo	Lansdown
Mammalia	Lansdown

ANEUPLOIDY
see Heteroploidy

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

ANOMALIES (early development)
see also Pathology; Teratogenesis

Crustacea	Legrand
Insecta	Scriba

BLASTODERM
see also Cleavage; Primitive streak

Aves: Bellairs, Breathnach, Downie, Lutz, Modak, Stern, Turin, Vakaet, Van Roelen
Insecta: Klag, Louvet

BLASTODISC
see Blastoderm

BLASTOMERES
see Cleavage

BLASTULA
see Cleavage

BLOOD
see also Circulation; Hematopoiesis; Hemolymph; Vascular system

Amphibia: Cardellini, Flavin, Hosbach, Sala, Weber, Widmer
Aves: Blanchet, Carinci, Dawes, Godet, Gotzos, Lemez, Nair, Nigon, Samarut
Crustacea: Kondo
Homo: Gotzos, Nigon, Ramirez
Mammalia: Blanchet, Harrison, Khrushchov, Michurina, Samarut, Starostin
Vertebrata: Geraci, MacLean

BLOOD VESSELS
see Vascular system; specific organs, etc.
see also Circulation

BODY CAVITIES (& their linings)

Aves: Duncker
Polychaeta: Heimler

BONE(S)
see also Bone marrow; Cartilage; Skeleton

Aves: Amprino, Hinchliffe, Jotereau, Knese, Nardi, Nijweide
Homo: Knese, Matejka, Mazhuga
Mammalia: Burger, Knese, Linde, Matejka, Mazhuga, Nijweide, Scherft, Thesingh, Valkema

BONE MARROW
see also Hematopoiesis; Mast cell

Aves: Jotereau
Mammalia: Mazhuga, Mikhailov, Thomas

BRAIN
see also Optic centre & tracts

general, miscell., unspecified: Alexandru, Stastny
biochem. & biophys. studies: Fulcrand, Kaufmann, Kozik, Lierse, Mikhailov, Rinaudo, Rooy, Ruano, Sturrock
descr. & compar. studies: Bruin, Camosso, Garcia, Gihr, Glas, Gribnau, Guirao, Gyevai, Kaufmann, Kostovic, Kraus, Lafarga, Lierse, Marty, Mestres, Oksche, Pilleri, Puelles, Schiebler, Seymour, Sievers, Stefanelli, Zilles
experimental studies: Chronwall, Mestres, Mikhailov, Pascual, Puelles, Raedler, Roncali, Stefanelli, Sumner
genetical studies: Correa, Leuba, Modak, Osipov, Vakhrusheva
pathol. & teratol. studies: Bernocchi, Bugge, Guirao, Ilies, Knudsen, Lierse, Manfredi, Mularek, Redi, Scherini, Tewari, Tuchmann, Wegmann, Wender, Woollam
physiological studies: Baumgarten, Bruin, Chaloupka, Garcia, Gyevai, Oyen, Roberts, Rokyta, Safanda, Tschadaja, Zahlava, Zilles

BRANCHIAL REGION
see also Pharynx

Homo: Slipka

BRISTLE
see Integument

BURSA OF FABRICIUS
see also Lymphatic system

CAMBIUM
see Vascular tissue

CAPILLARIES
see Vascular system

CAPSULE (Egg)
see Egg coverings

CARAPACE

CARBOHYDRATES
see also Cell (matrix)

general, miscell., unspecified: Robert
cell biology: Evans, Kemp

CHEMICALS (biologically active)
see specific chemicals (Antibiotics; Antimitotic agents etc. etc.); Chemical elements; Drugs; Ions; Teratogenesis

CHEMORECEPTORS

Amphibia — Fox, Whitear

CHIMERAS
see Genetics

CHONDROCRANIUM

Homo — Becker

CHONDROGENESIS
see Cartilage

CHORDA
see Notochord

CHORION
see Placenta
see also Embryonic membranes

CHOROID PLEXUS
see Brain

CHROMAFFIN CELLS

Homo — Kraus
Mammalia — Kraus
Teleostei — Gallo, Mastrolia

CHROMATIN
see Chromosomes

CHROMATOPHORE(S)

Amphibia — D'Anna, La Spina, MacMillan

CHROMOSOMES

abberations — Garcia, Niemierko, Rumpler, Tempelaar
cytogenetics — Capalnasan, Juberthie, Labrousse, Mounier, Polani, Zaborski
developmental changes — Camenzind, Gardner, Hornby, Lyon, Modak, Rumpler
heterochromatin — Bailly, Traut
karyotype — Fraser, Hornby, Jaylet
lampbrush — Barsacchi, Batistoni, Bucci, De Lucchini, Lacroix, Loones, Mancino, Nardi, Ragghianti, Renkawitz
malformations — Horvath, Testa
meiosis, gametogenesis — Ficq, Rumpler
molecular biol., biochem. — Bachmann, Correa, Dennhofer, Duprat, Ficq, Geraci, Leakey, Maehr, Malet, Modak, Schwochau, Serman
polytene, puff., Balb.ring — Behnel, Cionini, Dennhofer, Derksen, Kiss, Kroeger, Leenders, Lubsen, Maehr, Ribbert, Seydewitz, Vossen
sex chromosomes — Burgoyne, Glatzer, Hess, Kiss, Lyon, Schafer, Schwochau, Traut, Wurm
structure — Bailly, Billett, Bottke, Cognetti, Malet, Turchini
transplantation — Muller

CILIA

Amphibia — Henning
Ciliata — Golinska, Jerka
Echinoidea — Gustafson

CINEMICROGRAPHY
see Microcinematography

CIRCULATION
see also Vascular system; specific organs, etc.

CLEAVAGE (& morula, blastula)
see also Blastocyst; Blastoderm; Blastodisc

biochem. & biophys. studies — Boon, Buznikov, De Leo, Nuss, O'Dell, Parisi, Schmuckler, Signoret, Stern, Turin
cell biological studies — Haget, Signoret, Tencer
descr. & compar. studies — Christ, Davidova, Filosa, Graham, Jacob, Klag, Lehtonen, Meshcheryakov, Mestres, Rott, Swiderski, Wal, Wyss
experimental studies — Aimar, Biggelaar, Brachet, Cardellini, Czihak, Czolowska, Haarlem, Jura, Lefresne, Maisonhaute, Meshcheryakov, Modlinski, Namur, Niemierko, Nuss, Pijnenborg, Rzehak, Selman, Smorag, Surani, Tarkowski, Vela, Witkowska, Wolf
physiological studies — Clegg, Markova

CLOACA
see Urogenital system

CLONE(S)
see Asexual reproduction; Cell(s)

Aves
Croisille
Gasc
Gumpel
Lanot
Pannese
Pritchard
Russo
Homo
Pritchard
Mammalia
Marty
Pilleri
Pritchard
Russo
Salaun
Polychaeta
Fontes
Thouveny
Reptilia
Raynaud
Teleostei
Zilles

DEOXYRIBONUCLEIC ACID
see also Nucleic acids

general, miscell., unspecified
Bailly
cell biology
Gotzos
Musy
differentiation
Luger
Wolbert
embryo
Boon
Ficq
Nagl
Scarano
gametes, germ cells
De Leo
Ficq
Hanocq
Kloc
Labordus
Matuszewski
invertebrates
Egberts
Vijverberg
molecular biology
Barsacchi
Batistoni
Crippa
De Lucchini
De Petrocellis
Gallien
Giannelli
Grippo
Jandieri
Jones
Knochel
Labordus
Mechler
Nardi
Renkawitz
Ribbert
Scarano
Schenkel
Sekeris
Signoret
Tempelaar
Tumanishvili
Vittorelli
Wurm
organs, organogenesis
Bode
Courtois
Gasc
Modak
Panova
Treton
plants
Capesius
Wick
regeneration
Anton
Fontes
Le Moigne
Marilley
Mouton
unicellular organisms
Heizmann

DETERMINATION (embryonic)
see also Induction; specific organs, etc.

general
Bernhard
Duprat
Illmensee
Johnson
Kimble
Romanovsky
Sladecek
Tiedemann
Zust
differentiation, organogenesis
Bulliere
Filogamo
Ivanov
Lelievre
MacMillan
Mglinetz
Schoeller
Tamarelle
early development
Alexandre
Denker
Gardner
Gehring
Lallier
Leikola
Marthy
Parisi
Vollmar
germ cells
Lundquist
Maufroid

DEVELOPMENT (general)
see also Asexual reproduction; Life cycle(s); Morphogenesis

Cephalopoda
Boletzky
Cestoda
Smyth
Cetacea
Gihr
Pilleri
Coleoptera
Juberthie
Copepoda
Terpilowska
Crocodilia
Ferguson
Cyclostomata
Baxter
Decapoda
Williamson
Diptera
Gardenghi
Priester
Ectoprocta
Nielsen
Haplomi
Gihr
Hydrozoa
Lui
Muller
Znidaric
Mammalia
Lansdown
Mesozoa
O'Dell
Oligochaeta
Pylilo
Polychaeta
Hofmann
Porifera
Boury
Efremova
Evans
Gallissian
Kemp
Vacelet
Pulmonata
Vela
Rodentia
Wilson
Scyphozoa
Muller
Teleostei
Heesen
Ozoh
Trematoda
Soltynska
Turbellaria
Deri

DEVELOPMENT (larval)
see also Polymorphism (insects)

Annelida
Heimler
Anura
Antila
Fox
Asteroidea
Kasyanov
Bivalvia
Kulikova
Brachiopoda
Franzen
Brachyura
Ingle
Bryozoa
Heimler
Strom
Cestoda
Swiderski
Copepoda
Hipeau
Coelomata
Heimler
Crustacea
Castel
Fincham
Decapoda
Le Roux
Ngoc
Diptera
Emmert
Guillet
Echinoidea
Brachet
Immers
Kruchkova
Ryberg
Ectoprocta
d'Hondt
Entoprocta
Franzen
Gastropoda
Thiriot
Heteronemertini
Cantell
Hymenoptera
Schmidt
Insecta
Nuesch
Invertebrata
Jagersten
Muller
Lepidoptera
Guillet
Nematoda
Sulston
Orthoptera
Schmidt
Phoronidea
Emig
Pogonophora
Jagersten
Polychaeta
Akesson
Cazaux
Prosobranchia
Fretter
Giese
Teleostei
Braum
Thaliacea
Flood
Trematoda
Swiderski
Urodela
Antila

DEVELOPMENT (plant: general)

Acrasiales
Durston
Economidis
Forman
Gerisch
Guialis
Haastert
Hutchinson
Kakebeeke
Kay
Konijn
Mato
Molen
Patrinou
Rickwood

Tsang
Weijer
Wurster

Angiospermae: Barlow, Capesius, Cionini, Jelaska, Legay, Mader, Mestre, Pierik

Chlorophyceae: Koop

Fungi: Botton, Hammond, Moore, Sietsma, Wessels, Wood, Zonneveld

Musci: Bopp, Knoop

Myxomycetes: Coote, Sauer, Schrauwen, Wick, Wolf

DEVELOPMENT (post-embryonic, fetal)

DEVELOPMENT (unicellular organisms: general)

Bacteria: Seddon

Chlorophyceae: Kiermayer

Ciliata: Kaczanowska, Kaczanowski, Radzikowski, Schwartz

Dinophyceae: Netzel

Protozoa: Csaba

Rhizopoda: Jantzen, Netzel, O'Dell, Preston, Przelecka, Sobota

Sporozoa: Smith

DEVELOPMENTAL GENETICS
see Genetics

DEVELOPMENTAL PATHOLOGY
see Pathology

DEVELOPMENTAL PHYSIOLOGY
see Embryology (experimental); Embryology (physiological & biochemical)
see also Development

DIAPAUSE
see also Dormancy

Crustacea: Kondo, Piot

Insecta: Fourche, Guillet, Mauchamp

Oligochaeta: Saussey

DIAPHRAGM
see Body cavities

DIET
see Nutrition

DIFFERENTIATION
see also Dedifferentiation; Metaplasia; specific organs, etc.

general: Davidson, Fontes, Glatzer, Hach, Hess, Hoperskaya, Illmensee, Kahn, Koebke, Milman, Nagl, Passaponti, Renkawitz, Rousseau, Salaun, Schafer, Schmid, Smyth, Thorogood, Vilanova, Yurowitzky

cellular: Adamson, ap Gwynn, Augusti, Berking, Boonstra, Both, Brugal, Burki, Chibon, Duprat, Gaunt, Gazaryan, Graham, Illmensee, Isaeva, Jones, Khrushchov, Kondo, Konyukhov, Laat, Landstrom, Lovtrup, Luger, Mansueto, Mazzucco, Michurina, Moolenaar, Mummery, Nelemans, Ortolani, Patricolo, Pijnacker, Russo, Saag, Sazhina, Soltynska, Starostin, Truman, Vahs, Wartiovaara, Weiss, Wijk, Zoelen

early development: Biggelaar, Cigada, Crnek, De Bernardi, Dongen, Duncan, Englander, Forman, Gehring, Grunz, Hansen, Hofman, Kurrat, Levak, McKenzie, Ranzi, Skreb, Surani, Svajger, Wylie

gametes, germ cells: Aisenstadt, Capuron, Maufroid

organogenesis: Andrieux, Bulliere, Bulmer, Burgoyne, Caruelle, Clavert, Clayton, Daillie, de Pomerai, Desveaux, Dewes, Egberts, Hornby, Kraus, Labat, Lafont, Lawson, Le Douarin, Lucey, Mandysova, Mazhuga, Meller, Modak, Peel, Perrin, Pritchard, Robert, Roncali, Sevcenko, Sprey, Szabad, Tamarelle, Teillet, Turner, Yamada

plant: Bopp, Clowes, Coote, Dexheimer, Durston, Gerisch, Guignard, Harte, Kay, Konijn, Malchow, Molen, Nagl, Schel

Moor
Moreau
Newcomb
Peaucellier
Polge
Sakun
Seddon
Simons
Skoblina
Smith
Steinert
Strange
Vilain
Weniger
Willadsen
Zeilmaker

EGG COVERINGS

Gastropoda — Kress
Insecta — Barbier, Kleine
Oligochaeta — Farnesi, Tei
Teleostei — Bouvet, Hagenmaier, Riehl
Turbellaria — Bondi, Marinelli, Vagnetti

EGG MEMBRANES
see Egg coverings; Embryonic membranes

EGG SHELL
see Egg coverings

ELECTRIC ORGAN

Teleostei — Kirschbaum

ELECTRICITY
see Bio-electricity

ELEMENTS (chemical)
see Chemical elements

EMBRYO-MATERNAL RELATIONSHIPS
see also Placenta

Amphibia — Badet, Chateaureynaud, Izoard
Homo — Chateaureynaud, Izoard
Mammalia — Bernocchi, Bulmer, Chateaureynaud, Choroszewska, Glenister, Hemmings, Izoard, McLean, Manfredi, Morris, Panigel, Pascaud, Peel, Redi, Scherini

EMBRYO PRESERVATION
see Culture & preservation

EMBRYO TRANSFER
see Transfer

EMBRYOLOGY (experimental)
see also specific stages; Determination; Gradients; Induction; Morphogenesis; Pattern formation; Regulation

general — Durand
Amphibia — Bluemink, Nieuwkoop, Saade, Vacek
Annelida — Dohmen
Anura — Albert, Beloussov, Delarue, Droin, Girard, Jumah, Kurais, Martynova, Rzehak, Selman, Smith, Stanisstreet
Araneae — Holm
Ascidiacea — Farinella
Aves — Beloussov, Drukker, Filogamo, Hach, Kieny, Lanot, Lelievre, Lutz, Rostedt, Stephan, Straaten, Tahka, Vacek, Wiertz
Cladocera — Crochard, Pihan
Coleoptera — Jung, Schnetter
Collembola — Tamarelle
Diptera — Deak, Dubendorfer, Epper, Janning, Lohs, Vogel, Went
Echinoidea — Brachet, Guerrier, Horstadius, Lonning, Malchenko, Martynova, Moreau
Gastropoda — Boon, Hess, Labordus
Heteroptera — Nubler
Homoptera — Korner, Sander, Vogel
Hydrozoa — Polteva
Hymenoptera — Jung, Nuss
Insecta — Lawrence, Sander
Isoptera — Truckenbrodt
Lagomorpha — Beier, Bentyn, Fischer, Mootz
Lepidoptera — Legay
Mammalia — Glenister, Vacek
Mollusca — Bluemink, Dohmen, Dongen, Guerrier, Moreau, Verdonk
Nematoda — Kimble
Oligochaeta — Devries
Polychaeta — Brachet, Peaucellier
Porifera — Korotkova
Pulmonata — Meshcheryako
Rodentia — Azoubel, Balakier, Beier, Burki, Crnek, Csaba, Gaunt, Hofman, Illmensee, Kaufman, Komar, Levak, Modlinski, Morriss, Niemierko, Pijnenborg, Skreb, Surani, Svajger, Wartiovaara, Wilson, Yazykov
Spiralia — Dohmen
Teleostei — Haarlem, Ivanov, Lonning
Urodela — Boterenbrood, Englander, Hara, Johnen, Koebke, Kurrat, Lacroix, Loones, Selman, Testa

EMBRYOLOGY (general & descriptive)
see also specific stages; Development (general); Organogenesis

general — Bezem, Ivanova, Korotkova

EMBRYOLOGY (physiological & biochemical)
see also specific stages; Development; Energy; Metabolism; Nutrition; Respiration, etc.

EMBRYOLOGY (Plant: experimental)
see also Meiosis

Lierse
Stroeva
Venneman
physiological studies
Bibikova
Panova
Stroeva
theoretical studies
Bard

EYE LENS
see also Regeneration (traumatic)

general, miscell., unspecified
Clavert
Clayton
Ruano
biochem. & biophys. studies
Bower
Brahma
Campbell
Courtois
Doorenmaalen
Errington
Hoperskaya
Jackson
Malinina
Mikhailov
Modak
Platonov
Pritchard
Starre
Thomson
Treton
Unger
Wainwright
Williamson
descr. & compar. studies
de Pomerai
Pritchard
Wakeley
experimental studies
Bosco
Campbell
Doorenmaalen
Filoni
Horder
Karkinen
Lopashov
Starre
genetical studies
Campbell
Modak
pathol. & teratol. studies
Wakeley
physiological studies
de Pomerai
Platonov
Pritchard

FACE
see Head

FALLOPIAN TUBE
see Oviduct

FAT
see Adipose tissues; Lipid(s)

FAT BODY
see Adipose tissues

FATE MAPS
see Embryology (experimental)

FATTY ACIDS
see Lipid(s)

FEATHER(S)

Aves	Davidson
	Mauger
	Sengel

FECUNDITY
see Fertility

FERTILITY (& sterility)

Amphibia	Fischberg
Crustacea	Crochard
	Pihan
Homo	Taillemite
Insecta	Engels
	Lassak
Mammalia	Adams
	Booth
	Elsome
	Norris
	Polge
	Tuchmann
	Zeilmaker

FERTILISATION
see also Conjugation

Amphibia	Cusimano
	Rzehak
Amphineura	Durfort
Angiospermae	Erdelska
	Linskens
	Pargney
	Willemse
Arachnida	Feiertag
	Pijnacker
Ascidiacea	Cusimano
	De Leo
	Mansueto
	O'Dell
	Villa
Bivalvia	Drozdov
	Durfort
Brachiopoda	Bargallo
Cestoda	Swiderski
Chaetognatha	Bargallo
Chondrostei	Ginsburg
Crustacea	Durfort
	Lopez
Echinoidea	Ceas
	Christen
	De Leo
	Drozdov
	Ferrini
	Lonning
	Manelli
	O'Dell
	Sardet
Gymnospermae	Willemse
Homo	Baker
	Cohen
	Komar
Hydrozoa	Honegger
Insecta	Pijnacker
	Went
	Wolf
Mammalia	Adams
	Baker
	Brown
	Christie
	Cohen
	Cran
	Dott
	Edwards
	Elsome
	Fischer
	Foster
	Fraser
	Glos
	Green
	Harrison
	Horst
	Jones
	Kaleta
	Kassner
	Komar
	Krzanowska
	Lorenc
	Modlinski
	Moor
	Newcomb
	Norris
	Opas
	Pijnenborg
	Polge
	Simons
	Smith
	Smorag
	Strange
	Surani
	Willadsen
	Witkowska
Polychaeta	Bargallo
	Cazaux
	Peaucellier
	Picard
Scyphozoa	Honegger
Teleostei	Lonning
Trematoda	Swiderski
Turbellaria	Bargallo

FETAL FLUIDS
see Embryonic membranes

FETAL MEMBRANES
see Embryonic membranes

FETUS
see also Development (postembryonic, fetal)

Homo	Gennser
	Taillemite

FIBROBLAST(S)

general	Edwards
Aves	Gotzos
	Musy
Mammalia	Van Gansen

FIN(S)

FLAGELLA

Rhizopoda	King

hypothalamic factors
Chambolle
Kah
Stark
insulin Mercier
Tuchmann
kinin Choroszewska
nervous syst., sense organs
Boer
Buijs
Dogterom
Leeuwen
Mestres
Swaab
Zilles
organs, organogen. (others)
Burger
Hanke
Kedinger
Lombard
Nijweide
Wijk
parathyroid hormone
Burger
Garel
placenta Baker
regeneration Desser
Franquinet
Sliwa
Srebro
reproduction Adams
Beier
Booth
Busch
Doree
Goncharov
Guerrier
Norris
Pijnenborg
Steven
Wilson
sex hormones Lucarz
thyroid hormones
Bager
Davidova
Dettlaff
Faucounau
Hartwig
Mitskevich
urogenital system
Baumans
Colenbrander
Davidova
Dettlaff
Lutz
Milano
Zaayer

HORN(S)

Artiodactyla Hartwig

HYBRID(S)
see also Cell (cell heredity)

Amphibia Bucci
Colombelli
Cusimano
Fischberg
Gasser
Gaub
Mancino
Muller
Ragghianti
Roguski
Siboulet
Ascidiacea Cusimano
Farinella
Ortolani
Aves Deray
Gomot
Lutz
Marchand
Crustacea Legrand
Hydrozoa Littlefield
Mammalia Adams
Norris
Rumpler
Teleostei Abramova
Neyfakh

HYPERPLASIA
see Growth

HYPERTROPHY
see Growth

HYPOPHYSIS

Amphibia Andrieux
Aronsson
Pehlemann
Aves Chanturishvili
Gomot
Marchand
Roncali
Tvorogova
Homo Gyévai
Stark
Mammalia Baker
Klepac
Liwska
Milkovic
Paunovic
Peruzovic
Schiebler
Stark
Young

HYPOXIA
see Respiration

IMAGINAL DISCS

general, miscell., unspecified
Gateff
Robertson
biochem. & biophys. studies
Berreur
Lafont
Sprey
Tarroux
Vijverberg
descr. & compar. studies
Blais
experimental studies
Bownes
Dewes
Epper
Garcia
Gehring
Ivanov
Kaurov
Mglinetz
Mosbacher
Nubler
Schoeller
Sprey
Wilcox
genetical studies
Ferrus
Garcia
Ivanov
Mglinetz
Simpson
physiological studies
Blais
Egberts
Mauchamp
Vijverberg
theoretical studies
Sprey

IMMUNOCHEMISTRY

Acrasiales Gerisch
Patrinou
Amphibia Brahma
Deparis
Duprat
Flavin
Giorgi
Modak
Ragghianti
Yamada
Aves Clayton
Croisille
Doorenmaalen
Mikhailov
Pritchard
Crustacea Junera
Meusy
Echinoidea Mikhailov
Insecta Bulliere
Simoni
Mammalia Bertini
Clayton
Comoglio
Mikhailov
Prat
Pritchard
Tarone
Oligochaeta Marcel

IMMUNOLOGY (developm.)
see also Self-recognition

general, miscell., unspecified
Adinolfi
Balls
Binns
Calman
Curtis
Desvaux
Evans
Gaunt
Giannetti
Harrison
Horton
Jenkinson
Jurd
Korkia
Korochkin
McLean
Morris
Muiswinkel
Muller
Mylvaganam
Ockleford
Preda
Rusu
Sobis
Solomon
Steele

plants
Harte
Knoop
Koop
Moore
Pierik
Schweiger
Wood

MORPHOGENETIC FIELDS
see Embryology (experimental); Regeneration (traumatic)

MORTALITY (embryonic, fetal)
see Pathology
see also Abortions

MORULA
see Cleavage

MOSAICISM (genetical)
see Genetics

MOTILITY
see Behaviour; Cell(s)-behaviour; Morphogenesis

MOTOR END PLATES
see Nervous system
see also Synapse

MOULT(ING)

Crustacea
Cavallin
Daguerre
Demeusy
Fournier
Le Roux
Louvet
Martin
Mocquard
Williamson

Insecta
Bordes
Cavallin
Fournier
Louvet

Symphyla
Juberthie

MOUTH, LIP & PALATE
see also Pharynx

Amphibia
Capuron

Cephalopoda
Sundermann

Homo
Choffel
Dollander
Harris
James
Morreillon
Schroeder
Venneman
Wilde

Mammalia
Andersen
Baeckeland
Dostal
Fejerskov
Ferguson
Harris
James
Spielmann
Venneman
Wilde

MUCOPOLYSACCHARIDES
see Carbohydrate(s)

MÜLLERIAN DUCT

Aves
Lutz

MULTIPLE BIRTHS
see Twins

MUSCLE(S)
see also Electric organ

general, miscell., unspecified
Burgess
Hinrichsen
Kielbowna
Kordylewski
Kozlowska
Kryvi
Mahon

biochem. & biophys. studies
Bachmann
Barends
Bode
Caravatti
Chiquet
Dabrowska
Dollenmeier
Drabikowski
Ehrismann
Eppenberger
John
Jones
Kaehn
Keith
Kilarski
Lehmann
Meiniel
Message
Molinaro
Pelloni
Perriard
Perzanowska
Sarzala
Strehler

cell biological studies
Isaeva
Message
Molinaro

descr. & compar. studies
Barends
Beinbrech
Chevallier
Christ
Cihak
Deak
Dylevsky
Flood
Gamble
Grim
Jacob
Jones
Jongh
Kilarski
Knize
Knizetova
Mauger
Muntz
Robecchi
Scheuer
Trnkova
Zubrzycka

experimental studies
Cullen
Deak
Eppenberger
Filogamo
Fox
French
Grim
Hie
Kieny
Lang
Lopashov
Luger
Perriard
Puri
Raamsdonk
Turner

genetical studies
Deak
Knize
Knizetova

pathol. & teratol. studies
Billett
Ecob
Jaros
Molinaro

MUTAGENIC AGENTS

Amphibia
Beetschen
Ferrier
Jaylet

MUTANT(S)
see also Gene(s); Phenocopies

general
Harte
Loones
Lyon
Papaioannou

behavioral
Bisconte

biochemical
Bouthier
Deak
de Pomerai
Fischberg
Johnson
Kren
Kubli
MacMillan
Ouazana
Pritchard
Ruvinsky
Szabad

homoeotic
Bownes
Bulyzhenkov
Ivanov
Kaurov
Lawrence
Mglinetz
Morata
Santamaria

lethal incl. semi-, conditional-
Arnolds
Beetschen
Collenot
Fernandez
Gounon
Hornby
Kiss
Ruvinsky
Schoeller
Scriba

maternal effect
Nusslein
Palter

morphogenetic, structural
Bradbury
Chalfie
Colombelli
Droin
Ede
Ferrus
Heizmann
Hornby
Jerka
Kay
Keith
Kimble
Lohs
Milaire
Moore
Nicolas
Kren
Palter
Ripoll
Seller
Vlasta
Watson
physiological Fontaine
Simpson
reproductive Casu
Mounier
temperature-sensitive
Bulyzhenkov
Ivanov
Mglinetz
Simpson

MUTATION
see Genetics

MYCETOME

Insecta Korner

MYELIN(ISATION)
see Central nervous system

MYOBLASTS
see Muscle(s)

MYOGENESIS
see Muscle(s)

MYOSIN
see Protein

MYOTOME
see Somite(s)

NASAL ORGAN
see Olfactory organ

NEMATOCYSTS

NEOPLASIA
see Tumours

NEOTENY
see Metamorphosis

NERVE(S)

Amphibia Muntz
Aves Bouvet
Panattoni
Robecchi
Mammalia Hie
Jaros

NERVE CELLS

general Norrgren
Amphibia Baffoni
Lofberg
Roberts
Trevisan
Aves Ebendal
Puelles
Stastny
Echinodermata Toneby
Insecta Beetz
Mammalia Lafarga
Lierse
Puelles
Stastny
Toneby

NERVOUS SYSTEM
see also specific components;
Neuroglia;
Neurotransmitters;
Synapse

general, miscell., unspecified
Gateff
Georges
Summerbell
Tyszkiewicz
biochem. & biophys. studies
Boer
Bondi
Buijs
Dogterom
Giacobini
Leeuwen
Meiniel
Sievers
descr. & compar. studies
Aronsson
Chevallier
Gamble
Hoyes
Louvet
Marcel
Moor
Roda
Scheuer
Sievers
Verna
experimental studies
Boilly
Chapron
Clemen
Filoni
Fontaine
Horder
Jacobson
Lassalle
Lelievre
Marcel
Mitolo
Muller
Roncali
Tognato
Vannini
Verna
Zacchei
genetical studies
Chalfie
Ferrus
pathol. & teratol. studies
Chauvin
Jaros
McKenzie
Martinovitch
Pavic
Shoro
Wechsler
Zivkovic
physiological studies
Baker
Boer
Ryberg
Saxod
Swaab
Uylings
Veltman
Verwer

NEURAL CREST

Amphibia Lofberg
MacMillan
Morriss
Aves Cochard
Hach
Harrisson
Keith
Le Douarin
Lelievre
Morriss
Teillet
Thiery
Thorogood
Ziller
Mammalia Cochard
Harrisson
Keith
Morriss
Thorogood

NEURAL PLATE

NEURAL TUBE
see Central nervous system

NEUROGLIA

Aves Stastny
Mammalia Brichova
Illis
Kozik
Lierse
Marty
Mularek
Stastny
Sturrock

NEURONS
see Nerve cells

NEUROSECRETION

Amphibia Sliwa
Srebro
Aves Strudel
Crustacea Daguerre
Herp
Martin
Hydrozoa Vannini
Insecta Cavallin
Hardie
Ramade
Such
Tamarelle
Tschadaja
Nematoda Mounier

biochem. & biophys. studies
Boender
Bottke
Giudice
Grippo
Hennig
Monesi
Nicotra
Riehl
Vogt
cell biological studies
Polani
descr. & compar. studies
Abro
Colombera
Franzen
Juberthie
Liebrich
Link
Lopez
Nicotra
Riehl
Vassetzky
Villa
Woyke
Zissler
experimental studies
Liebrich
Monesi
genetical studies
Camenzind
Hackstein
Hennig
Johannisson
Renkawitz
Schafer
pathol. & teratol. studies
Posinovec
physiological studies
Evans
Harrison
Lazard

SPERMATOZOA
see also Gametes

Amphibia Ceas
Ascidiacea Villa
Chondrostei Ginsburg
Echinoidea Geraci
Homo Auroux
Brun
Invertebrata Franzen
Mammalia Adams
Birch
Blom
Brown
Brun
Dott
Elsome
Fischer
Foster
Glos
Harrison
Horst
Jones
Krzanowska
McLean
Norris
Polge
Wabik
Polychaeta Picard

SPERMIOGENESIS
see Spermatogenesis

SPINAL CORD

Amphibia Kort
Marini
Roberts
Thors
Trevisan
Aves Ambrosi
Camosso
Farthing
Laing
Mitolo
Sedlacek
Homo Barson
Mammalia Csillik
Ecob
Knyihar
Teleostei Marini

SPLEEN

Aves Dieterlen
Homo Gaudecker

SPORE (& sporulation)

Bacteria Hutchinson
Fungi Zonneveld

STATIC ORGAN

Amphibia Briegleb
Neubert
Mammalia Marty

STERILITY
see Fertility (& sterility)

STEROIDS
see also Cortisone; Hormone(s) (Invert.); Hormone(s) (Vertebr.)

general, miscell., unspecified
Antila
Cockroft
Dupuis
Jones
Lombard
Parker
White
embryo Gasc
fetus, larva, neonate
Colombo
Gennser
Grinsted
Kratochwil
Leakey
Schenkel
Sulcova
gametes, germ cells
Felber
Jaggi
Kaufman
Lazard
Ryffel
Weber
Westley
invertebrates Bazin
Bordes
Bulliere
Cavallin
Daguerre
Fournier
Koolman
Lafont
Louvet
Mounier
Reum
Scheller
organs, organogenesis
Ashby
Bondi
France
Gasc
Marinelli
Oyen
Poll
Rashedi
Reyss
Scheib
Vagnetti
Vetterlein
reproduction Bager
Gebhardt
Legrand
Ludwig
Stagni
Vannini
Zaccanti
teratogenesis Gabriel
McKenzie
Spielmann
tumours Elger

STOLON
see Asexual reproduction

STOMACH

Homo Swain
Mammalia Morris

SUBCELLULAR COMPONENTS

general Biggelaar
Bluemink
Dohmen
Fedecka
Habrova
Molen
Nedvidek
Ockleford
Priester
Verdonk
Wal
chloroplast Freyssinet
Heizmann
Nicolas
Nigon
Pretova
Salvador
Schweiger
contractile vacuole
Kaczanowska
cortical granules
Scriba
cytoskeleton Brachet
Drozdov
Geuskens
Klag
Laurila
Palecek
Stenman
Surani

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 large parts 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 be held in the first half of 1981.

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 Basel 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 800. Membership list on page 193.

International Society of Differentiation

This society holds triennial conferences. 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 officially established in 1978. At present it encompasses some 14 national Societies or Sections for Developmental Biology, as well as 100 individual members in other countries in Europe and the Middle East. The organization is responsible for the biennial International Embryological Conferences (XIVth Conference scheduled for September 1980 in Patras, Greece). Other aims are to disseminate information and to co-ordinate scientific meetings. Secretary/Treasurer: J.McKenzie, Dept. of Developmental Biology, University of Aberdeen, Natural Philosophy Building, Old Aberdeen, AB9 2UE, Scotland, U.K.

Collections of Embryos available for study

a) *Central Embryological Collection*

See under Hubrecht Laboratory, p.191

b) *Cornell University, Ithaca*

Sectioned embryos and slides; *Homo, Bos, Ovis, Sus, Equus, Canis, Felis, Mustela, Rattus, Mus, Cavia*. Address: H.Evans, or D.Noden, Department of Anatomy, New York State College of Veterinary Medicine, Cornell University, Ithaca, NY 14853, U.S.A.

c) *University of Wisconsin Zoological Museum, Madison (H.W.Mossman collection)*

Wet specimens and slides; mammals, primarily fetal membranes and male and female reproductive tract. Address: University of Wisconsin Zoological Museum, Lowell E.Noland Zoology Bldg., 250 North Mills St., Madison, WI 53706, U.S.A.

d) *Hochstetter Collection, Wien*

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

e) *Carnegie Embryological Collection, Davis*

Homo, Macaca, other Primates, some Insectivora, Address: R.O'Rahilly, Carnegie Laboratories of Embryology, University of California, Davis, CA 95616, U.S.A. A detailed catalogue is available, including the collections f-k.

f) *University of Michigan collection, Ann Arbor*

Homo (slides). See under e)

g) *The Hooker/Humphrey Collection, Birmingham, Alabama*

Homo (slides). See under e)

h) *University of Washington Collection, Seattle, WA*

Homo (slides). See under e)

i) *Blechschmidt collection, Göttingen*

Homo (slides). See under e)

j) *Bluntschli Collection, Davis*

Microcebus (slides). See under e)

Platyrrhines and Insectivores (not included in catalogue)

k) *Primate Center Collection, Davis*

Homo, Papio, Macaca, Cercopithecus, Galago (slides). See under e)

Membership List of the International Society of Developmental Biologists

This list was drawn up by the Secretary-Treasurer on September 5th, 1979. 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. 18, pt. 2.

* emeritus members

U. Abbott, Davis, Calif., '64
R. Adler, La Jolla, Calif., '74
Ch. Aimar, Paris, '75
K. Aketa, Nagoya, '70
J. Albright, Oak Ridge, Tenn., '69
M. Amano, Hiroshima, '78
E. C. Amoroso, Cambridge, '60*
R. M. Amprino, Bari, '60
E. M. Anderson, Boston, Mass., '69
G. Andres, Mainz, '57
F. Andronico, Napoli, '76
J. M. Arnold, Honolulu, Hawaii, '75
H. L. Arora, Sassari, '64
M. Asashima, Yokohama, '78
R. Auerbach, Madison, Wisc., '70
G. Augusti-Tocco, Firenze, '71
M. Auroux, Kremlin-Bicêtre, '70
C. Baglioni, Albany, N.Y., '69
J. T. Bagnara, Tucson, Ariz., '67
S. Bailly, Paris, '75
R. E. Baker, Amsterdam, '76
W. W. Ballard, Hanover, N.H., '70*
E. Baltus, Rhode-St.-Genèse, '70
C. Barigozzi, Milano, '60*
G. Barsacchi, Pisa, '72
A. Bart, Villeneuve d'Ascq, '70
P. G. Bartels, Tucson, Ariz., '70
R. A. Beatty, Edinburgh, '56
D. Beaupain, Nogent-sur-Marne, '78
F. Beck, Leicester, '66
H. J. Becker, Wien, '67
J. C. Beetschen, Toulouse, '67
I. Bekhor, Los Angeles, Calif., '74
E. Bell, Cambridge, Mass., '69
M. R. Bellairs, London, '60
Y. Ben-Shaul, Tel-Aviv, '78
M. Benazzi, Pisa, '56
J. A. A. Benoit, Nogent-sur-Marne, '60
S. Ben-Or, Jerusalem, '72
W. E. Berg, Berkeley, Calif., '57
N. J. Berrill, Swarthmore, Pa., '71*
S. J. Berry, Middletown, Conn., '75
T. W. Betz, Ottawa, Ont., '74
I. Bhargava, Ahwaz, '74
S. P. Bhat, Bethesda, Md., '79
S. Bieber, Teaneck, N.J., '70
F. S. Billett, Southampton, '75
W. J. Birge, Lexington, Ky., '70
C. W. Birky, Jr., Columbus, Ohio, '71
M. Birnstiel, Zürich, '69
S. M. Bishop (Calame), Davis, Calif., '67
R. E. Black, Williamsburg, Va., '69
A. W. Blackler, Ithaca, N.Y., '69
D. P. Bloch, Austin, Tex., '69
R. F. Blount, Galveston, Tex., '60*
H. R. Bode, Irvine, Calif., '75
C. W. Bodemer, Seattle, Wash., '70
E. J. Boell, New Haven, Conn., '57*
B. Boilly, Villeneuve d'Ascq, '70
C. Boitani, Roma, '78
D. B. Bonar, College Park, Md., '78
J. T. Bonner, Princeton, N.J., '60
C. Borek, New York, '74
E. Borghese, Napoli, '56
J.-C. Boucaut, Paris, '75
B. G. Boving, Detroit, Mich., '57
J. L. A. Brachet, Rhode-St.-Genèse, '48*
S. K. Brahma, Utrecht, '66
A. C. Braun, New York, '70
R. Brentani, Sao Paulo, '76
H. V. Brøndsted, Copenhagen, '48*
A. J. Brothers, Berkeley, Calif., '78
D. D. Brown, Baltimore, Md., '69
J. E. Brown, Coventry, '79
R. Brun, Fort Worth, Tex., '75
P. J. Bryant, Irvine, Calif., '72
S. V. Bryant, Irvine, Calif., '75
M. M. Bryden, Brisbane, '75
M. Burger, Basel, '78
D. R. Burgess, Hanover, N.H., '78
R. D. Burke, College Park, Md., '79
D. N. Butcher, Cambridge, '70
J. M. Butros, Beirut, '67
J. M. Cairns, Springville, N.Y., '69
R. Cambar, Talence, '57
R. Cambino, Napoli, '76
C. Campanella, Napoli, '76
R. D. Campbell, Irvine, Calif., '79
C. C. Candelas, Rio Piedras, '77
R. Canipari, Roma, '78
E. C. Cantino, East Lansing, Mich., '70
A. I. Caplan, Cleveland, Ohio, '73
P. Carinci, Ferrara, '79
B. M. Carlson, Ann Arbor, Mich., '76
J. D. Caston, Cleveland, Ohio, '74
J. N. Cather, Ann Arbor, Mich., '75
M. Th. Chalumeau, Bobigny, '73
R. Chandebois, Marseille, '76
C. Y. Chang, Peking, '57
H. Charniaux (Cotton), Paris, '64
H. B. Chase, New Hampton, N.H., '60
D. Chen, Tel-Aviv, '72
P. S. Chen, Zürich, '60
G. Chieffi, Napoli, '64
G. J. Childs, Palo Alto, Calif., '79
Chuang Hsiao Hiu, Shanghai, '48
J. M. J. Clavert, Strasbourg, '57
R. M. Clayton (Freedman), Edingburgh, '60
A. C. Clement, Atlanta, Ga., '57*
G. Cognetti, Palermo, '76
S. Cohen, Nashville, Tenn., '64
R. H. Cohn, Palo Alto, Calif., '79
J. R. Coleman, Providence, R. I., '70
A. M. Collenot, Ivry-sur-Seine, '69
J. R. Collier, Brooklyn, N.Y., '69
G. Colombo, Ferrara, '60
A. L. Colwin, Key Biscayne, Fla., 56*
L. Hunter Colwin, Key Biscayne, Fla., 60*
T. G. Connelly, Ann Arbor, Mich., '77
G. W. Conrad, Manhattan, Kansas, '75
M. Conti, Roma, '78
G. Cossu, Roma, '78
A. J. Coulombre, Bethesda, Md., '69

M. Crippa, Genève, '70
Y. Croisille, Nogent-sur-Marne, '66
P. S. Crowell, Bloomington, Ind., '60
A. S. G. Curtis, Glasgow, '69
G. Czihak, Salzburg, '74
A. D'Agostino, Roma, '78
F. D'Amato, Pisa, '79
V. D'Amelio, Palermo, '64
F. Dameron, Nogent-sur-Marne, '70
J. C. Dan, Tokyo, '57
K. Dan, Tokyo, '57
J. C. Daniel, Jr., Boulder, Colo., '70
I. B. Dawid, Bethesda, Md., '69
M. Decroly (Briers), Rhode-St.-Genèse, '71
R. L. DeHaan, Atlanta, Ga., '69
V. De Leon, New York, '77
H. A. Denis, Gif-sur-Yvette, '69
S. Denis-Donini, Napoli, '76
B. De Petrocellis, Napoli, '72
M. E. Desmond, Villanova, Pa, '77
T. A. Dettlaff, Moscow, '56
Ch. Devillers, Paris, '57
M. De Vincentiis, Napoli, '64
M. A. Di Berardino, Philadelphia, Pa., '66
E. Didier, Aubière, '79
D. F. Dieterlen (Lièvre), Nogent-sur-Marne, '68
W. Doane, Tempe, Ariz., '74
A. Dollander, Nancy, '60
W. J. v. Doorenmaalen, Utrecht, '60
A. Dorfman, Chicago, Ill., '72
D. B. Drachman, Baltimore, Md., '70
N. I. Dragomirov, Moscow, '48
U. Drews, Tübingen, '74
A.-M. Duprat, Toulouse, '76
M. Durchon, Villeneuve d'Ascq, '69
F. Duspiva, Heidelberg, '69*
R. M. Eakin, Berkeley, Calif., '48*
T. Ebendal, Uppsala, '78
J. D. Ebert, Washington, D. C., '56
J. M. Echave Llanos, La Plata, '73
E. M. Eddy, Seattle, Wash., '77
D. A. Ede, Glasgow, '73
M. Edidin, Baltimore, Md., '78
A. Egelhaaf, Köln, '70
G. Eguchi, Nagoya, '69
S. Elias, Timisoara, '73
W. A. Elmer, Atlanta, Ga., '77
H. Emanuelsson, Lund, '72
Y. Endo, Yokohama, '78
L. Eng, Coral Gables, Fla., '79
M. Engelhardt, Copenhagen, '74
M. A. England, Leicester, '77
H. Engländer, Köln, '60
D. Epel, Pacific Grove, Calif., '78
H. M. Eppenberger, Zürich, '78
H. Esper Enesco, Montreal, '74
W. Etkin, Bronx, N.Y., '70*
K. Eto, Tokyo, '78
H. E. Evans, Ithaca, N.Y., '72
M. J. Evans, Cambridge, '77
H. Eyal (Giladi), Jerusalem, '64
J. Faber, Utrecht, '64
B. C. Fabian, Johannesburg, '77
J. F. Fallon, Madison, Wisc., '70
G. Fankhauser, Princeton, N.J., '48*
A. Fantoni, Roma, '79
M. G. Farace, Roma, '79
A. Fausto-Sterling, Providence, R.I., '75
J. C. Fautrez, Gent, '57
M. Feldman, Rehovot, '60
Dame H. B. Fell, Cambridge, '36*
W. R. Ferris, Tucson, Ariz., '70
A. A. Ficq, Rhode-St.-Genèse, '60
G. Filogamo, Torino, '60
M. Filosa, West Hill, Ont., '79
C. V. Finnegan, Vancouver, B.C., '70
P. Fioretta, Roma, '78
M. Fischberg, Genève, '57
A. Fischer, Köln, '75
D. A. Fischman, Brooklyn, N.Y., '75
L. J. Fisher, Ann Arbor, Mich., '79
R. A. Flickinger, Buffalo, N. Y., '60
J. Fontaine, Nogent-sur-Marne, '78
M. Fontes, Marseille, '78
F. Martindale Foote, Carbondale, Ill., '64*
G. Forti, Bari, '70
J. Foucrier, Bobigny, '79
L. Franklin, Houston, Tex., '70
M. Friedländer, Beer-Sheva, '70
M. Friedlander, New York, '78
T. Fujii, Tokyo, '60
T. Fujimoto, Kumamoto, '78
H. Fujisawa, Kyoto, '79
C. M. Fulton, Waltham, Mass., '70
M. Furusawa, Osaka, '78
M. Furuya, Tokyo, '70
P. J. Gaillard, Leiden, '60*
M. Galdieri, Roma, '78
J. G. Gall, New Haven, Conn., '69
J. Gallera, Genève, '57
C. L. Gallien, Paris, '73
B. B. Garber, Chicago, Ill., '74
A. Garcia Bellido, Madrid, '78
W. J. Gehring, Basel, '78
W. L. M. Geilenkirchen, Utrecht, '72
J. Geraudie, Paris, '77
R. Geremia, Roma, '78
G. Gerisch, Martinsried, '78
H. Gershman, Cleveland, Ohio, '77
N. G. Gezelius, Uppsala, '78
N. B. Gilula, New York, '77
A. Giroud, Paris, '48*
G. Giudice, Palermo, '69
R. W. Glade, Burlington, Vt., '70
T. W. Glenister, London, '60
A. Globerson, Rehovot, '70
S. Glueckson Waelsch, Bronx, N.Y., '60
S. C. Goel, Poona, '75
P. F. Goetinck, Storrs, Conn., '70
E. Goldwasser, Chicago, Ill., '71
A. G. Gona, Newark, N.J., '79
M. Gontcharoff, Reims, '78
K. Goshima, Nagoya, '79
R. J. Goss, Providence, R.I., '69
A. S. Goustin, Berkeley, Calif., '78
C. T. Grabowski, Coral Gables, Fla., '70
Ph. Grant, Eugene, Ore., '64
P. B. Green, Stanford, Calif., '70
J. H. Gregg, Gainesville, Fla., '69
J. R. Gregg, Durham, N.C., '57
T. A. I. Grillo, Ibadan, '66
P. Grippo, Napoli, '78
C. Grobstein, La Jolla, Calif., '56
Z. Grodziński, Krakow, '60*
A. Gropp, Lübeck, '76
J. Gross, Boston, Mass., '70
P. R. Gross, Woods Hole, Mass., '69
H. Grüneberg, London, '56*
H. Grunz, Berlin, '78
J. B. Gurdon, Cambridge, '69
T. Gustafson, Stockholm, '56
K. E. Haffen (Stenger), Strasbourg, '64
A. Haget, Talence, '60
T. Hama, Nagakute, '60
V. Hamburger, St. Louis, Mo., '48*
H. L. Hamilton, Charlottesville, Va., '56*
J. Hämmerling, Wilhemshaven, '60
W. S. Hammond, Syracuse, N.Y., '60*
F. Hanocq, Rhode-St.-Genèse, '75
J. A. Hanocq (Quertier), Rhode-St.-Genèse, '69

G. M. Happ, Burlington, Vt., '79
K. Hara, Utrecht, '78
I. Harada, Hokkaido, '78
M. Hardy-Fallding, Guelph, '73
J. W. S. Harris, London, '68
M. Hašek, Praha, '57
Y. Hashimoto, Tokyo, '78
R. E. Hausman, Boston, Mass., '75
E. D. Hay, Boston, Mass., '64
Y. Hayashi, Tokyo, '60
W. G. Heim, Colorado Springs, Colo., '66
W. A. Hemmings, Bangor, '69
S. Hennen, Milwaukee, Wisc., '70
H. Herrmann, Storrs, Conn., '60
O. Hess, Düsseldorf, '69
T. Higashinakagawa, Tokyo, '78
S. R. Hilfer, Philadelphia, Pa., '71
J. R. Hinchliffe, Aberystwyth, '75
G. W. Hinsch, Tampa, Fla., '70
Y. Hiramoto, Tokyo, '60
H. Holter, Copenhagen, '57*
J. K. F. Holtfreter, Rochester, N.Y., '36*
T. J. Horder, Oxford, '76
R. Hori, Toyama, '76
C. Horváth, Paris, '75
M. Hoshi, Sapporo, '78
K. Hoshino, Kyoto, '78
Ch. Houillon, Paris, '67
D. Huchon, Paris, '75
J. M. T. Hultin, Stockholm, '56
T. D. Humphreys, Honolulu, Hawaii, '70
A. A. Humphries, Jr., Atlanta, Ga., '77
M. Ikeda, Yokohama, '78
K. Ikenishi, Gifu, '78
J. Ilan, Cleveland, Ohio, '73
Y. Inoue, Tokyo, '78
J. Ishida, Tokyo, '60
K. Ishihara, Saitama, '76
M. Ishikawa, Matsuyama, '70
T. Ishimoda-Takagi, Nagoya, '79
A. Israel, Hilo, Hawaii, '69
L. E. Iten, W. Lafayette, Ind., '77
T. Itow, Shizuoka, '78
M. Iwabuchi, Hokkaido, '78
M. Jacobs-Lorena, Cleveland, Ohio, '77
A. G. Jacobson, Austin, Tex., '70
D. C. O. Jacobson, Uppsala, '69
L. F. Jaffe, W. Lafayette, Ind., '70
R. Jalouzot, Reims, '78
A. G. Johnen, Köln, '64
T. R. Johnson, Cleveland, Ohio, '77
K. E. Johnson, Washington, D. C., '78
A. D. Jost, Paris, '56
F. C. Kafatos, Cambridge, Mass., '78
C. Kafiani, Moscow, '73
A. J. B. Källén, Lund, '60
P. P. Kallio, Turku, '70
H. Kanatani, Okazaki, '71
R. E. Kane, Honolulu, Hawaii, '72
Y. Kanoh, Akkeshi, '60
S. Karasaki, Montreal, '69
P. R. Karfunkel, Amherst, Mass., '74
W. Kastern, Bethesda, Md., '78
A. C. Kato, Genève, '78
I. Kawakami, Fukuoka, '57
A. M. Kaye, Rehovot, '79
L. H. Kedes, Palo Alto, Calif., '71
J. R. Keefe, Cleveland, Ohio, '77
P. L. Kellokompu-Lehtinen, Turku, '78
C. M. Kelly, Cleveland, Ohio, '77
N. E. Kemp, Ann Arbor, Mich., '57
A. Keynan, Jerusalem, '70
B. I. Kiefer, Middletown, Conn., '79
R. C. King, Evanston, Ill., '70
T. J. King, Bethesda, Md.
S. Kinoshita, Tokyo, '77
V. Kiortsis, Athens, '69
Y. Kishida, Okayama, '77
A. O. Klein, Waltham, Mass., '70
N. W. Klein, Storrs, Conn., '70
W. Knöchel, Berlin, '79
U. Kocher (Becker), Berlin, '66
W. Kocher, Berlin, '66
L. D. Koehler, Mt. Pleasant, Mich., '70
M. K. Kojima, Toba, '78
E. J. Kollar, Farmington, Conn., '70
J. J. Kollros, Iowa City, Iowa, '56
M. Kondo, Wilrijk, '77
Y. C. Kong, Hong Kong, '75
I. R. Konigsberg, Charlottesville, Va., '69
Y. Koshida, Osaka, '78
M. Kraemler, Bobigny, '79
K. Kratochwil, Salzburg, '69
G. Krause, Würzburg, '56
H. Y. Kubota, Kyoto, '78
R. G. Kulka, Jerusalem, '71
A. Krishna Kumaran, Milwaukee, Wis., '70
M. Kusa, Yamagata, '79
T. K. Kuusi, Helsinki, '56
M. Labrousse, Paris, '73
T. C. Lacalli, Saskatoon, Sask., '77
J. C. Lacroix, Ivry-sur-Seine, '69
R. A. Lallier, Villefranche-sur-Mer, '60
C. C. Lambert, Fullerton, Calif., '77
A. Lang, East Lansing, Mich., '70
J. Langman, Charlottesville, Va., '56
J. Lash, Philadelphia, Pa., '69
H. Laufer, Storrs, Conn., '69
P. A. Lawrence, Cambridge, '75
L. Lazard (Hauben), Nogent-sur-Marne, '68
G. LeDouarin, Nantes, '75
N. LeDouarin, Nogent-sur-Marne, '74
H. H. Lee, Toledo, Ohio, '78
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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 specialised 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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INDEX TO AUTHORS AND EDITORS
with reference to serial numbers of book notices

GENERAL DEVELOPMENTAL BIOLOGY (see also 52,86,87)

Textbooks

1.
R.DAVENPORT. 1979. AN OUTLINE OF ANIMAL DEVELOPMENT
Addison-Wesley, Reading, Mass. XVIII,412 pp., 134 figs., subject index.
$ 25.25

Contents: 1. Introduction, 2. Animal development - a first outline at the level of the organism, 3. A description of ontogeny in terms of apparent properties on different structural levels, 4. A description of ontogeny in terms of potential properties, 5. The synthesis of protein, 6. The control of protein synthesis, 7. The regulation of protein synthesis during ontogeny - a molecular description, 8. The cell cycle, 9. The phylogeny of multicellular form, 10. The role of cellular association in the attainment of multicellular form, 11. Primary determination, 12. Secondary determination, 13. Individuation - the epigenetic achievement of form, 14. Mosaic development, 15. The sea urchin embryo, 16. The dynamics of the amphibian embryo, 17. The early development of the mammalian embryo, 18. The use of models in the description of ontogeny, 19. The origin of current biological concepts, 20. The description of hierarchical organization, 21. The role of constraint in the emergence of structural organization, 22. The role of constraint in ontogeny

Despite its unpretentious title this is a most original and thought-provoking book. It is much more than a mere introductory text because it is pervaded by a philosophy presented with much cogency. This philosophy owes much to Paul Weiss, and in fact there is a direct line running from Spemann through Weiss to Davenport: the conviction that the study of development should be the study of the emergence of hierarchical structural organisation, and that in this approach all levels of biological organisation are equally important and indispensable.

The author has the courage to state that present-day reductionism (in so far as it is mechanistic) is a dead end and that the science of life is in a great conceptual crisis. He feels that the study of ontogeny (including its phylogenetic aspects) may well be "the catalyst necessary to force us out of outmoded approaches to Nature". Physics, he points out, has long since abandoned the idea of the objective reality of matter and its mechanistic implications, replacing it by the notion of relational fields and by a different kind of causality. Biology in its turn should begin to take seriously the implications of its own discoveries. I for one am entirely convinced by this reasoning, and I do hope that many developmental biologists will make an honest effort to follow the author's thoughts. Even those who fail to be convinced will enjoy the experience, because the book is exceedingly well written. It may well be that it will one day be recognised as a beacon on the road to a new theoretical biology - not in the sense of

mathematical biology but of a true philosophy of biology.

The main or "textbook" part of the book (chs.2-18) is a solid account of the data and interpretations of "classical" experimental embryology and of some of the recent work on mammalian embryos. It acquires unity from the fact that it is pervaded by this same philosophy. It is not "modern" in the current sense of the word; the molecular level is treated "tangentially", though what there is of it is sound enough (chs.5-7). If the story seems somewhat repetitive in places this is for very good didactical reasons. The text demands concentrated attention but the author almost always achieves lucidity. (That this is possible shows the current trend to make science "easy" for the student for the fallacy that it is.) There are some minor inaccuracies, such as the equation of secondary morphogenetic fields with organ-forming areas (in reality the organ field is often initially larger than the organ area). Areas that receive little or no attention are the cell membrane and cell periphery, induction by cell contact, the stem cell problem *sensu stricto*, transdetermination, and morphogenesis in large unicellular organisms. It might be worth wile to remedy some of this in a future edition. On the other hand, the material in chs.9 and 10 is seldom found in developmental biology texts. Ch.18 is a short but very sensible discussion of the merits and demerits of prepattern and positional information concepts.

The more philosophical parts are to be found in chs.1 and 19-22. Here the author ventures far into general biology and phylogeny, as well as into the foundations of modern physics and the philosophy of consciousness and perception. These parts should be read to be fully appreciated. It is significant that the last section of the final chapter should be entitled: Ontogeny reveals the inadequacy of present hereditary concepts.

The book is attractively produced. The figures are simple line drawings. They are on the whole quite effective but some are schematised to the extent of losing contact with biological reality. Most chapters have short lists of additional reading as well as a few key references; in the case of the latter the choice is not always the most obvious one.

2.

D.A.EDE. 1978. AN INTRODUCTION TO DEVELOPMENTAL BIOLOGY
Blackie, Glasgow, etc. X,246 pp., 71 figs., subject index. £ 5.25 (paper), £ 10.50 (cloth)

Contents: 1. Levels of complexity in development, 2. Formation of gametes and initiation of development, 3. Beginnings of development, 4. Interactions in early development, 5. Cellular activity in the embryo and in vitro, 6. Morphogenetic movements in early embryogenesis, 7. Neurulation and the development of the embryonic axis in vertebrates, 8. Determination and differentiation, 9. Inductive interactions, 10. Development of the skin and its appendages, 11. Morphogenesis of a complex organ: the vertebrate limb, 12. Form and pattern, 13. Genes and development, 14. Hormonal control of developmental processes, 15. Insect development, 16. Mammalian development, 17. Developmental neurobiology

This book aims at providing the basis for a course in animal developmental biology for advanced undergraduates, and it does this very well. The book would also be suitable as a rapid orientation for scientists coming from other fields. It is surprisingly up to date in most areas, and the lists of further reading are excellent. The main emphasis is on experimental work. Although the cellular level is by no means neglected, much attention goes to supracellular aspects (particularly pattern formation and its theoretical explanations) and to the genetic control of development.

The book is in the form of an easily readable, continuous story and the author introduces major concepts and ideas at the most appropriate places as

he goes along (with adequate cross-referencing). The inevitable simplifications and generalisations are altogether acceptable for an introductory text. My only objection to the author's style are his occasionally very long and complicated sentences.

The line drawings are simple but effective; they were all redrawn from various original sources, contain much indispensable information, and have good legends linking them up with the text (a slight drawback is that they are not referred to in the text). The photographic illustrations are not always so successful.

3.
V.B.EICHLER. 1978. ATLAS OF COMPARATIVE EMBRYOLOGY, a laboratory guide to invertebrate and vertebrate embryos
Mosby, St.Louis, Mo. 202 pp., 574 figs. $ 9.95, £ 7.97 (paper)

This atlas is clearly meant to be used in conjunction with other material and under constant guidance. The text is kept at an absolute minimum. Meiosis, fertilisation and mitosis are illustrated by material from an insect, *Ascaris*, and a fish. The illustrations for invertebrate embryogenesis are from material of a Pelecypod mollusc, *Asterias*, *Arbacia*, *Amphioxus*, and *Ciona* (metamorphosis). Vertebrate embryogenesis takes up the remaining five-sixths of the book and is based on material of the lamprey, *Fundulus*, *Rana* (including metamorphosis), two reptiles, the chick, the rat (mainly gametogenesis and placenta), the pig, and man (ten embryos and fetuses).

Almost all illustrations are photographic and are on the whole basically very good, although one is sure that many have lost considerable detail in reproduction. The use of numerals for labelling the sections, in conjunction with a foldout index, is a good idea. Some parts, such as the 8-day and 11-day chick embryo, are mysteriously unlabelled. The book is concluded by a good glossary of selected terms.

4.
W.H.FREEMAN and B.BRACEGIRDLE. 1978. AN ATLAS OF EMBRYOLOGY. 3rd edit.
Heinemann, London. X,110 pp., 94 figs., £ 3.80

This useful atlas is now in its fifteenth year. It is based on the principle of showing (usually full-page) photographs of sections or whole mounts and accompanying each by a carefully executed and labelled line drawing.

In this new edition some good material on amphioxus (cleavage to late larva, 16 specimens) and on (mostly early) mammalian development (11 specimens) has been added. The original material on the frog and the chick (67 specimens) is unchanged. (Although it is claimed that all photographs were remade, I could detect hardly any difference.) The atlas has no text.

5.
G.V.LOPASHOV and O.A.HOPERSKAYA. 1979. BIOLOGY OF DEVELOPMENT AND PROBLEMS OF ORGAN RECONSTITUTION (in Russian)
Publ. House "Znanie", Moscow. New Publ. on Life,Sci. and Techn., Ser. Biology no.5. 62 pp., 13 figs., 2 tabs. 11 Kop. (paper)

Brief text apparently meant primarily for the educated layman; programming of cell differentiation and induction; programming of differentiation of cell types; molecular-genetic aspects of the programming of differentiation; transdifferentiation; theory of cell programming; significance for reconstitutive medicine; line drawings and diagrams; literature restricted to 7 Russian titles.

Monographs

6.
M.E.CLUTTER, ed. 1978. DORMANCY AND DEVELOPMENTAL ARREST, experimental analysis in plants and animals
Academic Press, New York, etc., XII,316 pp., 68 figs., 27 tabs., combined subject and taxonomic index. $ 29.00, £ 18.85

Contents: 1. Embryonic diapause in mammals - a developmental strategy (Renfree), 2. Insect dormancy (Jungreis), 3. Control mechanisms for plant embryogeny (Walbot), 4. Metabolic regulation of dormancy in seeds - a case history of the wild oat (*Avena fatua*) (Simpson), 5. Environmental and hormonal control of dormancy in terminal buds of plants (Nooden and Weber), 6. Sleep and torpor - homologous adaptations for energy conservation (Heller *et al.*), 7. Dormancy and development (Sussex)

The phenomena known collectively under the blanket term "dormancy" are extremely varied and complex, and this book treats only selected examples. It is unlikely that they have a single common denominator and the connecting strand (selective gene expression) suggested by Sussex in the brief concluding chapter is tenuous. The chapters themselves are thorough and well-organised reviews. Some are relatively straightforward compilations but others have extensive discussions of terminology (obviously much needed) or frame new hypotheses. No editorial effort has been made to tie them more closely together, but it is questionable whether this would have been at all possible.

Ch.4 is up to date until about 1974, the others until a more recent date. The book is well produced and illustrated.

Symposium reports

7.
F.AHMAD, J.SCHULTZ, T.R.RUSSELL and R.WERNER, eds. 1978. DIFFERENTIATION AND DEVELOPMENT
Academic Press, New York, etc. Miami Winter Symposia vol.15. XXII,533 pp., 141 figs., 19 tabs., $ 29.50, £ 19.15

This symposium was held in January 1978 in Miami, Fl. The vast majority of speakers and discussants were North Americans. As in previous symposia of this series the focus is the molecular basis of biological phenomena. The 23 papers vary enormously in scope and format; they are reviews of recent work or progress reports. The biological materials also vary greatly and include normal organisms and cells as well as cancer cells. The group discussions are also recorded.

The arrangement of the papers shows no structure at all. For the benefit of our readers we single out some of the subjects (with authors' names in parentheses): transformed fibroblastic cells as a model for differentiation (Pastan *et al.*); pancreas-specific gene expression during differentiation (Rutter *et al.*); cyclic nucleotides in development (Rickenberg); control of protein synthesis in slime mould differentiation (Lodish *et al.*); transmembrane control and cell surface recognition in development (Rutishauser and Edelman); developmentally regulated chorion protein genes (Kafatos *et al.*); models of morphogenetic fields and tissue morphogenesis (Gierer); the cell-to-cell membrane channel in development and growth (Loewenstein); nuclear transplantation and gene injection in amphibians (Gurdon *et al.*).

The volume is concluded by 77 abstracts of poster demonstrations.

8.
J.D.EBERT and T.S.OKADA, eds. 1979. MECHANISMS OF CELL CHANGE
Wiley, New York, etc. XIV,343 pp., 153 figs., 35 tabs., subject index.
$ 46.00, £ 24.00

Contributors: Brown, Clayton, Dan, Eguchi, Epel, Gerisch, Gurdon, Hotta, Ikawa, Kanatani, Kawachi, Le Douarin, McLaren, Mahowald, Mintz, Okada Pagano, Roth, Schneiderman, Wilt

Although this book is in a rather grand format, it betrays its origin from a symposium in that the contributions are unequal in quality and scope. The symposium was part of the I.S.D.B. Congress held in Tokyo in August/September 1977 but the editors have solicited several other contributions to achieve a better balance. Of the 20 chapters most are reviews ranging in length from 6 to 40 pages, while some are little more than research reports and seem to be included almost by chance. Together they provide an interesting sampling (but not much more than that) of a number of focal areas of research dealing with transitions from one developmental state to another, at various levels of biological organisation and in a great variety of systems. It must be said, however, that many of the reviews are of top quality.

The chapters are arranged in five sections containing four papers each: Maturation and early development; Regulation of gene expression: the molecular approach; Regulation of gene expression: the cellular approach; The role of the cell surface; Rise of diversity of cell type. The references cited only occasionally go beyond 1977.

The volume is well produced and has beautiful illustrations, but it shows some signs of hasty composition.

THEORETICAL AND MATHEMATICAL DEVELOPMENTAL BIOLOGY (see also 1,99)

Monographs

9.
F.L.BOOKSTEIN. 1978. THE MEASUREMENT OF BIOLOGICAL SHAPE AND SHAPE CHANGE
Springer, Berlin, etc. Lecture Notes in Biomathematics vol.24. VIII,191 pp., 50 figs. DM 20.00, $ 10.00 (paper)

The author of this essay starts by pointing out that the insights of modern, post-Cartesian geometry have so far not benefitted the science of morphometrics. His intention is "a thoroughgoing redefinition and reconstruction of morphometrics as a branch of applied modern geometry".

The first part of the essay deals with the measurement of biological shape. Of more direct interest to our readers is the second part, dealing with the measurement of changes in shape. Here the author points out that he, like all his predecessors in this century, had to start where D'Arcy Thompson left off. Indeed, on the basis of a review of the literature until 1977 he concludes that no really new start has been made at all. His answer is an original method called the "method of biorthogonal grids". This is set out in detail and followed by a computer implementation and two worked examples relating to Thompson's well-known *Diodon* transformation and to the phylogeny and ontogeny of primate crania.

In the last chapter he discusses future directions for transformation analysis, devoting some space to possible applications in developmental biology. In particular, he suggests that the directional growth gradients reconstructed by his method may serve as a model for actual morphogenetic gradients, and contrasts his own method with the model for neural plate morphogenesis proposed by Jacobson and Gordon.

10.
H.HAKEN. 1978. SYNERGETICS, an introduction. Nonequilibrium phase transitions and self-organization in physics, chemistry and biology. 2nd enlarged edit.
Springer, Berlin, etc. Springer Series in Synergetics vol.1. XII,355 pp., 152 figs., subject index. DM 66.00, $ 33.00

This book has been well received and in fact this is the second, enlarged edition, necessitated because the first edition (1977) is already sold out.

The subject matter of the book is almost entirely mathematical. We announce it here because it is similar in spirit to a book by Nicolis and Prigogine we reviewed last year (vol.17, part 2, review no.9). The approach, however, is entirely different. The term Synergetics was coined by the author when he realised that "the co-operation of many subsystems of a system is governed by the same principles irrespective of the nature of the subsystems ..... " The author is a German theoretical physicist who, among other things, has published a book on laser theory. The book encompasses many domains, from Brownian movement to sociology. The mathematics is kept at an elementary level as far as possible.

The book is perhaps best characterised by a quotation from the Preface:

> "In recent years it has become more and more evident that there exist numerous examples in physical and chemical systems where well organized spatial, temporal, or spatio-temporal structures arise out of chaotic states. Furthermore, as in living organisms, the functioning of these systems can be maintained only by a flux of energy (and matter) through them. In contrast to man-made machines, which are devised to exhibit special structures and functionings, these structures develop spontaneously - they are self organizing. It came as a surprise to many scientists that numerous such systems show striking similarities in their behavior when passing from the disordered to the ordered state. This strongly indicates that the functioning of such systems obeys the same basic principles. In our book we wish to explain such basic principles and underlying conceptions and to present the mathematical tools to cope with them."

In chapter one, which sets the stage for the whole book, the problems it considers are defined as follows: "It will turn out that equations governing self-organization are intrinsically nonlinear. From those equations we shall find in the following that "modes" may either *compete*, so that only one "survives", or *coexist* by stabilizing each other. Apparently the mode concept has an enormous advantage over the microscopic description. Instead of the need to know all "atomic" coordinates of very many degrees of freedom we need to know only a single or very few parameters, e.g., the mode amplitude. As we will see later, the mode amplitudes determine the kind and degree of order. We will thus call them *order parameters* and establish a connection with the idea of order parameters in phase transition theory ..... The amazing thing in self-organizing systems [is] this. Though energy is fed into the system in a *completely random* fashion, the system forms a well-defined macroscopic mode ..... The systems we shall investigate organize themselves *coherently*" (author's italics).

One difference with the approach of the Prigogine group is that the present approach "investigates what happens at the instability point and it determines the new structure beyond it. Some of these problems can be dealt with by the mathematical theory of bifurcation, or, more generally, by a mathematical discipline called dynamic systems theory. In many cases presented in this book we had to treat still more complex problems, however. For instance, we had to take into account fluctuations, small band excitations and other features. Thus synergetics has established links between dy-

namic systems theory and statistical physics".

The chapters of most direct interest to developmental biologists are ch.9 (Chemical and Biochemical Systems) and ch.10 (Applications to Biology). The last three sections of ch.10 (together occupying 15 pages) deal with morphogenetic models, a discussion taking its starting point in the Gierer-Meinhardt model for *Hydra*.

Collections of papers

11.
S.A.LEVIN, ed. 1978. STUDIES IN MATHEMATICAL BIOLOGY, Part I: Cellular behaviour and the development of pattern
Mathemat. Assoc. of America, Washington. Studies in Mathematics vol.15. XIV,315 pp., 90 figs., 8 tabs., author and subject indexes. $ 16.00

Contributors: Arbib, Cowan, Ermentrout, Guckenheimer, Kauffman, Kopell, Levin, Rinzel, Segel, Winfree, Zeeman

This volume contains a collection of five original articles and four reprints. The latter date back to 1974 and 1975 while some of the former were written in 1975 or 1976.

Three papers are devoted to the understanding of the function of the nervous system at different levels of organisation. The next two papers address the problem of the emergence of collective behaviour in a variety of cellular systems, and the problem of pattern formation in reaction-diffusion systems. General problems of development such as the role of wave phenomena, the dynamics of gene control circuits, and the role of biological rhythms are discussed in the last four papers.

PLANT DEVELOPMENT (general) (see also 6,84)

Treatises

12.
D.S.LETHAM, P.B.GOODWIN and T.J.V.HIGGINS, eds. 1978. PHYTOHORMONES AND RELATED COMPOUNDS - a comprehensive treatise. vol.II. Phytohormones and the development of higher plants
Elsevier/North-Holland Biomed. Press, Amsterdam, etc. XXVI,648 pp., 95 figs., 19 tabs., subject and taxonomic indexes. Dfl.224.00, $ 99.50

This two-volume book by a band of authors from many different countries is a typical compilatory work. It contains an enormous amount of information but is difficult to read "in one go" (this also holds for the individual chapters). The chapters are linked by cross references. The intention of the editors was to "emphasize that there should be an integrated approach to plant biology placing the role of hormones in proper perspective within the overall context of plant metabolism". Vol.I dealt with the biochemistry of phytohormones and related compounds in both lower and higher plants, emphasising the subcellular effects of the hormones as far as higher plants are concerned.

From among the 13 chapters of vol.II we single out those dealing with the following topics: Growth and differentiation of cells and tissues *in vitro* (Gresshoff); Growth and development of organs of the vegetative plant (Goodwin); Fruit growth (Goodwin); Growth correlations (Goodwin *et al.*); Orientation of growth (Reinhold); Flower formation (Zeevaart); Seed dormancy and germination (Khan and Tao); Bud dormancy (Saunders).

As is understandable in a work of this nature, not all chapters are equally up to date. The volume is well produced and adequately illustrated, but the price is excessively high.

Textbooks

13.
P.F.WAREING and I.D.J.PHILLIPS. 1978. THE CONTROL OF GROWTH AND DIFFERENTIATION IN PLANTS. 2nd edit.
Pergamon, Oxford, etc. Pergamon Internat. Library of Science, Technol., Engin. and Social Studies. XII,347 pp., 170 figs., 9 tabs., combined subject/taxonomic index. $ 35.00 (cloth), $ 15.00 (paper)

This new edition of a well-known text has been extensively revised. The material has been rearranged and large sections have been rewritten. The data on phytochrome and phytomorphogenesis (*sensu stricto*) are now brought together in a short new chapter. Notwithstanding the use of smaller print the book is almost 50 pages longer.

The reading lists have been revised and many new figures are included. The figures, particularly the photographs, are less well reproduced than in the original book.

Monographs

14.
G.T.COLE AND R.A.SAMSON. 1979. PATTERNS OF DEVELOPMENT IN CONIDIAL FUNGI
Pitman, London, etc. XII,190 pp., 452 figs., 6 tabs., combined subject/author/taxonomic index. £ 29.75

Although this is a highly specialised work it may arouse the interest of botanists and general microbiologists interested in development and morphogenesis, and of those theoretical biologists who are interested in the generation of linear or branched arrays of cells. The book is concerned largely with asexual propagation in the Hyphomycetes, the major class of the Deuteromycetes or *Fungi Imperfecti*. It assembles information on conidiogenesis, re-evaluates current developmental concepts, and presents hitherto unreported ultrastructural and developmental data on many species. A special feature is the inclusion of an appendix on the comparable but subtly different process of sporangiospore formation in the Zygomycetes.

Almost all the fungal material on which the book is based was grown in pure culture. A separate chapter describes culture and ultrastructural techniques. All illustrations are original and of superb quality. They include light micrographs and both transmission and scanning electron micrographs, matched by excellent line drawings. The beautifully produced book is concluded by a glossary and a bibliography of some 250 titles.

15.
V.I.KEFELI. 1978. NATURAL PLANT GROWTH INHIBITORS AND PHYTOHORMONES
Junk, The Hague, etc. XII,277 pp., 58 figs., 27 tabs., subject index. Dfl.90.00, $ 44.00, £ 24.00

Contents: I. General information on phytohormones and natural growth inhibitors, II. Principles of analysis of phytohormones and natural growth inhibitors, III. Biosynthesis of phytohormones and natural growth inhibitors, IV. Functions of phytohormones and natural growth inhibitors in growing plants, V. Regulatory functions of natural growth inhibitors and dormancy period, VI. Characteristics of inhibitory effect of natural growth inhibitors, VII. General problems of plant growth regulation

The author of this book works at the Timiryazev Institute of Plant Physiology of the USSR Academy of Sciences. He and his co-workers (notably R.Kh. Turetskaya) have played a major role in "putting on the map" the natural (phenolic and terpenoid) plant growth inhibitors, which have in common that

they inhibit the activity of practically all known phytohormones at both the functional and the biosynthetic level. Their work was published almost entirely in Russian, and this book for the first time places it in the overall perspective of plant growth in a form that is accessible to all workers outside Russia.

The table of contents above speaks for itself. The bibliography contains some 800 titles, of which more than 160 are in Russian and other Eastern-European languages. The book is well produced and illustrated with diagrams and good photographs.

16.
H.SHIBAOKA, M.FURUYA, M.KATSUMI and A.TAKIMOTO, eds. 1978. CONTROLLING FACTORS IN PLANT DEVELOPMENT
Botanical Soc. of Japan, Tokyo. Botanical Magazine, Special Issue No.1. X,277 pp., 120 figs., 50 tabs. 4100 yen, $ 44.00 (paper)

Contributors: Cleland, Furuya, Galston, Jones, Katsumi, Masuda, Miginiac, Mohr, Oota, Takeuchi, Thimann, Wareing, Wilkins, Yanagishima

This special issue contains 14 well-organised, authoritative, medium-length reviews, six by Japanese authors and eight by authors from various other countries. Except for the two introductory ones, on determination and senescence, respectively, all reviews are centered around recent work done in the authors' own laboratories. Several contain work not published at the time of writing.

There are three papers dealing with metabolic control (one on slime mould cell differentiation, one on sexual cell agglutination in yeast, and one on aleurone response to GA). Four papers deal with hormonal control (three with cell elongation, one with flowering). The last five papers are on environmental control (three on various aspects of photomorphogenesis, one on leaf movements, and one on geotropism).

The volume is well printed and illustrated.

17.
J.E.SMITH and D.R.BERRY, eds. 1978. THE FILAMENTOUS FUNGI, vol.3 Developmental mycology
Arnold, London. XVI,464 pp., 107 figs., 31 tabs., taxonomic and subject indexes. £ 24.50

Contributors: Anderson, Brambl, Casselton, Clutterbuck, Demain, Dunkle, Dutta, Fencl, Gooday, Grove, Gull, Lysek, Martin, Ojha, Peberdy, Rogers, Smith, Stewart, Sundberg, Tan, Trinci, Turian, Van Den Ende, Van Etten, Willetts, Wright

This book by an international band of authors is a collection of competent reviews on almost every conceivable aspect of the developmental biology of filamentous fungi. They are up to date until the end of 1976 and encompass the disciplines of cytology, biochemistry, physiology and genetics. Several chapters are more than simply reviews in that they provide broader perspective.

About one third of the book deals with the growth of hyphae and related subjects such as septation, spore germination, protoplasts, and the cell cycle (or more properly "duplication" cycle). Some subjects from the remainder of the book are fungal dimorphism, asexual sporulation, dikaryon formation, sexual morphogenesis, light and temperature as developmental factors, and circadian rhythms.

The book is well produced and contains a multitude of good line drawings and photographic illustrations.

18.
S.BONOTTO, V.KEFELI and S.PUISEUX-DAO, eds. 1979. DEVELOPMENTAL BIOLOGY OF ACETABULARIA
Elsevier/North-Holland, Amsterdam, etc. Developments in Cell Biology vol.3. XXIV,312 pp., 153 figs., 30 tabs., combined subject and taxonomic index. Dfl.110.00, $ 49.00

Contents: I. The cell (11 papers), II. The organelles (11), III. The macromolecules and the metabolic pathways (9)

This is the fifth symposium report on *Acetabularia* biology since 1970. The Round Table took place in Moscow in August 1978. Its outstanding feature was the very high Russian attendance (two-thirds of all participants and contributors). The title of the book is somewhat surprising since only about a third of the 31 papers deal directly with morphogenesis. Almost all papers are short research reports, some of which were extensively edited. No discussions are recorded.

Almost all papers of direct interest to our readers are to be found in parts I and III. The only papers on electrophysiology in relation to morphogenesis are two by the group of Rogatykh and Zubarev in Moscow. According to these, the action potentials would affect mRNA synthesis in the nucleus. Other papers deal with morphogenetic substances, protoplasmic streaming and polarised RNA transport.

The papers are reproduced from typescripts. The volume is well produced and has a host of beautiful photographic illustrations.

19.
T.KUDREV, I.IVANOVA and E.KARANOV, eds. 1977. PLANT GROWTH REGULATORS
Publ. House Bulg. Acad. of Sciences, Sofia. 769 pp., 276 figs., 184 tabs.

This symposium took place in October 1975 in Sofia, Bulgaria. Of the 129 papers more than two thirds have authors from Eastern Europe, including the DDR, with Bulgaria well represented. The remaining papers come from a variety of countries in other parts of the world. Apart from a longish review by Chailakhyan on hormonal regulation of plant ontogenesis in species with different photoperiodicities, all papers are very brief to short research reports.

The papers cover an enormous variety of subjects and species. There are eight papers on auxins, nine on gibberellins ten on cytokinins, abscisic acid and phenolic compounds, and seven on interactions among endogenous growth regulators. A large section on synthetic growth regulators (75 papers) is subdivided into seven subsections, including one on nucleic acids, enzymes and amino acid synthesis, (16 papers), one on relations with endogenous hormones (4), and one on the regulation of flowering (10). Finally, there are 18 papers on general problems of growth regulation and on miscellaneous subjects.

The book is produced from typescripts on rather poor-quality paper. It is illustrated with numerous graphs and a few line drawings and photographs. There is no index.

20.
H.R.SCHÜTTE and D.GROSS, eds. 1978. REGULATION OF DEVELOPMENTAL PROCESSES IN PLANTS
Fischer, Jena. 408,20 pp., 152 figs., 33 tabs., index to contributors. DM 38.00, £ 10.50 (paper)

Contents: Protein pattern and regulation of differentiation (5 papers); Regulation of organelle biogenesis (4); Regulation of differentiation in

cell and tissue cultures (5); Regulation of development by interactions of plant hormones or other growth substances (6)

This conference was held at Halle, East Germany in July 1977. The contributors to the volume came from North America, East and West Germany, Eastern Europe and various other countries. The volume also contains a list of titles of over 150 poster presentations from all over the world, with the affiliations of the authors.

Most of the 20 papers are brief to medium-length reviews of recent work, while some are brief research reports. The large majority deal with higher plants. All papers are in English and have been reproduced from typescripts with minimal editing. The photographic illustrations are printed separately on art paper.

21.
M.N.SCHWALB and P.G.MILES, eds. 1978. GENETICS AND MORPHOGENESIS IN THE BASIDIOMYCETES
Academic Press, New York, etc. XIV,168 pp., 41 figs., 13 tabs., combined subject and taxonomic index. $ 14.00, £ 9.10

Contributors: Day, Koltin, Miles, Niederpruem, Raper, Schwalb, Stamberg, Wessels

This symposium took place in the U.S.A. in September 1977. It brought together a number of leading investigators in this field, whose contributions are not just progress reports but lengthy reviews directed towards the future.

The incompatibility system of *Schizophyllum commune* is one of the few cases in eukaryotes where the genetic basis of a regulatory complex involved in differentiation has been uncovered. It is not surprising, therefore, that four of the seven papers deal in one way or another with incompatibility factors in the higher Basidiomycetes (not only *S. commune*), some from a more biochemical, others from a more genetical viewpoint. Other papers deal with meiosis and recombination, with sundry cytological and biochemical aspects of morphogenesis, and with the regulation of fruiting.

The volume is well produced and illustrated with clear diagrams and good photographs.

INVERTEBRATE DEVELOPMENT (general)

Treatises

22.
M.ASHBURNER and T.R.F.WRIGHT, eds. 1978. THE GENETICS AND BIOLOGY OF DROSOPHILA vols.2b and 2c
Academic Press, London, etc.
Vol.2b (Chs.10-18), XVI,601,LIX pp., 141 figs., 27 tabs., author, subject and species indexes. £ 29.60, $ 61.25
Vol.2c (Chs.19-27) XVI,617,XXXIX pp., 254 figs., 41 tabs., author, subject and species indexes and index to genetic variations. £ 32.00, $ 66.25

Chapters of interest to developmental biologists: 14. Puffing of polytene chromosomes (Ashburner and Berendes), 16. The salivary glands (Berendes and Ashburner), 17. The morphology and development of the *Drosophila* muscular system (Crossley), 21. Embryonic development - descriptive (Fullilove and Jacobson), 22. Pattern formation in imaginal discs (Bryant), 24. Clonal analysis of *Drosophila* cuticular patterns (Postlethwait), 25. Mutational dissection of imaginal disc development (Shearn), 26. Imaginal discs: determination (Gehring), 27. Transdetermination (Hadorn)

This gigantic treatise is the first attempt since 1950 to provide a com-

prehensive account of *Drosophila* biology and genetics. Vol.1 (1976) dealt with formal genetics and vol.3 will deal with population biology. Vol.2 will consist of five parts, which we will briefly announce as we receive them. The editors emphasise that vol.2 complements but does not replace Demerec's *Biology of Drosophila* (1950).

Our readers are referred to the selective list of chapters above. It is impossible to review them in detail. Suffice it so say that editors, authors and publisher alike have devoted the utmost care to making these volumes into *the* reference work for many years to come. It would be preposterous to squabble over details vis-à-vis these impressive efforts.

A word should be said about the illustrations. These are numerous, varied in nature and often original. Particularly impressive are the long series of pictures of normal embryonic development, made with various techniques (ch.21), and the SEM-atlas of adult surface structures (ch.23).

Textbooks

23.
O.M.IVANOVA-KAZAS. 1978. COMPARATIVE EMBRYOLOGY OF THE INVERTEBRATES: LOWER CHORDATES (in Russian)
Izd. Nauka, Moscow. 166 pp., 101 figs.

Deals separately with the Acrania and the five classes of the Tunicata; also considers experimental embryology and asexual reproduction; separate chapter on evolution of ontogenesis in lower chordates; phylogenetic considerations; numerous good line drawings from various sources; 10-page bibliography (largely non-Russian).

Symposium reports

24.
F.-S.CHIA and M.E.RICE, eds. 1978. SETTLEMENT AND METAMORPHOSIS OF MARINE INVERTEBRATE LARVAE
Elsevier, New York, etc. XII,290 pp., 219 figs., 20 tabs., combined subject and taxonomic index. $ 27.50, £ 15.30

This symposium took place in December 1977 in Toronto, Canada. Since larval settlement and metamorphosis are closely linked processes, most of the 19 papers deal with both. All authors are North-Americans. Twelve of the papers are reviews, the remainder being research reports. The book contains a wealth of information on a total of 11 phyla, not otherwise easily found together in a single publication.

The book is well produced and contains a host of excellent illustrations: good line drawings and beautiful light and electron micrographs.

25.
R.LAFONT, organiser. 1979. CINQUIÈME SÉMINAIRE SUR LA DIFFÉRENCIATION CELLULAIRE CHEZ LES INSECTES
École Normale Supér., Lab. de Zool., Paris. Publ. du Lab. de Zool., E.N.S. No.14. 256 pp., 30 figs., 20 tabs. (mimeographed)

Report of a meeting held in Paris in December 1976; reviews on insect neurohormones (133 pp.), on vitellogenin synthesis and juvenile hormone, on imaginal discs (one each on differentiation and determination, respectively, the latter from a genetic viewpoint); research report on degeneration of larval hypodermis in *Calliphora*; line drawings and micrographs.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

VERTEBRATE DEVELOPMENT (general) (see also 40)

Textbooks

26.
R.M.EAKIN. 1978. VERTEBRATE EMBRYOLOGY: a laboratory manual. 3rd edit.
Univ. of Calif. Press, Berkeley, etc. XII,269 pp., 77 figs., subject index.
$ 5.65, £ 4.00 (paper)

This manual, first published in 1947 and revised in 1964 and 1971, is so well known that it suffices to announce this new edition briefly. A substantial revision had been planned but pressure of time has restricted the alterations to minor ones. This means that the 40-odd books listed at the end are now at least ten years old, while some are much older and some later editions are not listed.

27.
R.L.WATTERSON, G.C.SCHOENWOLF and R.M.SWEENEY. 1979. LABORATORY STUDIES OF CHICK, PIG, AND FROG EMBRYOS. 4th edit.
Burgess, Minneapolis. VI,162 pp., 21 figs., 41 pls., subject index. $ 9.95 (paper)

This new edition of a popular manual has been condensed as far as the text is concerned, but the basic plan has remained the same. Several new text figures have been added. The section on early frog development has been expanded, so that the student can now use it as a starting point in place of the 33-hour chick embryo.

Monographs

28.
O.NAKAMURA and S.TOIVONEN, eds. 1978. ORGANIZER, a milestone of a half-century from Spemann
Elsevier/North-Holland, Amsterdam, etc. XVIII,379 pp., 111 figs., 11 tabs., subject index. Dfl.166.00, $ 74.00

O.NAKAMURA and I.KAWAKAMI, eds. 1977. ORGANIZER (in Japanese)
Misuzu Shobo, Tokyo. X,342 pp., 130 figs., 21 tabs. Yen 4800

Contents: 1. A half-century from Spemann - Historical review of studies on the organizer (Nakamura, Hayashi, Asashima); 2. Dynamics of the organizer, A. Morphogenetic movements and specificities in induction and differentiation of the organizer (Takaya), B. New findings on the regionality and morphogenetic movement of the organizer(Hama); 3. Chemical approach to the inducing agents (Tiedemann); 4. Regionalization of the embryo (Toivonen); 5. Competence (Kawakami, Sasaki); 6. Epigenetic formation of the organizer (Nakamura); 7. "Spemann's organizer" in birds (Hara); 8. Primary induction in cyclostomes and prochordates (Takata, Hama); 9. Molecular-biological and cytochemical aspects of embryonic induction, A. A review of recent studies (Asao, Nakamura), B. Primary induction in retrospect and prospect (Yamada); 10. Concluding remarks - Primary embryonic induction: an unsolved problem (Saxén, Toivonen, Nakamura)

The field of studies on the organiser has been an active one in Japan up to the present day. This book first appeared in Japanese early in 1977 and the large majority of its authors are Japanese, even though some no longer work in Japan. The English edition will be welcomed by many embryologists, particularly because it points just as much to the future as to the past. Chs. 1, 7 and 8 appear as they were in the Japanese edition and consequently do not cover the literature after about 1974/75. Most of the other chapters were rewritten and partially updated for the present edition. Ch.1

sets the stage for the whole book while ch.10 serves as a brief summary.

One obvious feature of the book is that it reviews a large body of older and recent Japanese work that was either published in Japanese or not easily accessible to most embryologists outside Japan. That the book is not a unified whole is due partly to the complex nature of the subject and partly to the large number of authors, each of whom brings his own outlook and use of terminology. Moreover several authors (particularly those of chs.2A and B) concentrate largely on their own work. This sometimes leads to considerable overlap among chapters, a drawback that is only partially alleviated by cross-referencing and by the synthetic opening chapter.

Nevertheless, all chapters are competently written, some are excellent, and collectively they show that the organiser problem is still very much alive, from the morphogenetic down to the molecular level. It is particularly striking that studies now extend to stages long before and after gastrulation. That the molecular approach, particularly with respect to the cells responding to induction, has only just started is evident from ch.9A, which can do no more than hint at possible developments against the background of present-day molecular biology.

The book is well produced and illustrated with good line drawings and photomicrographs. The bibliography numbers close to 1,000 titles but is nonetheless incomplete in several areas, particularly as regards some of the recent European work. The subject index is too short to be really useful.

Symposium reports

29.

J.-C.BEETSCHEN, A.COLLENOT and J.SIGNORET, eds. 1977. PROGRÈS RÉCENTS EN BIOLOGIE DU DÉVELOPPEMENT DES AMPHIBIENS
Soc. Zool. de France, Paris. Mém. Soc. Zool. France vol.41. 234 pp., 34 figs., 11 pls., 26 tabs. Ffr. 85.00 (paper)

This symposium was held in September 1977 at Caen (France) in memory of the late Professor L.Gallien. Many of the speakers were one-time pupils and colleagues of Gallien's, or their present associates. One contributor came from Holland and one from Egypt. The volume as a whole provides a representative cross section of work on amphibians going on in France.

Of the 17 contributions all but two are in French, but all have extensive English summaries. Some are reviews of recent work but most are research reports. Among the subjects treated are sexual differentiation and primordial germ cells, transplantation immunity, oocyte maturation, symmetrisation, cell kinetics, determination in the neural plate, protein synthesis in hybrids, and limb regeneration.

The volume is well printed and illustrated. It is concluded by a complete list of Gallien's publications (1928-1976).

30.

L.SAXÉN, S.NORDLING and J.WARTIOVAARA, eds. 1978. CONTROL OF DIFFERENTIATION
Medical Biol., Helsinki. Med. Biol. vol.56, no.6. 118 pp., 73 figs., 14 tabs.

This *Festschrift* volume contains original contributions dedicated to Professor Sulo Toivonen on the occasion of his 70th birthday by his friends and colleagues and their associates. There are 20 short contributions from all parts of the world (6 from Finland). As in many such volumes the contents are extremely varied.

Most papers are research reports, but there are also half a dozen brief reviews of recent and older work in various fields. About half of the papers deal in one way or another with experimental and physiological embryology of amphibians, the remainder with amniote material ranging from the chick blastoderm to murine and human tumour cells.

The volume is well printed and illustrated.

DEVELOPMENT OF MAMMALS AND MAN (general) (see also 51)

Treatises

31.
F.FALKNER and J.M.TANNER, eds. 1978. HUMAN GROWTH, Vol.1 Principles and prenatal growth
Plenum, New York, etc. XX,634 pp., 162 figs., 99 tabs., subject index.
$ 42.00, £ 22.05

This is the first volume of a three-volume multi-author handbook, the first to treat the subject in such breadth. The concept of growth applied by the editors includes the physiology of development but excludes differentiation. The 31 contributors to vol.1 are from North-America and various Western-European countries; the large majority are working in hospitals or bio-medical laboratories. No strict format was imposed on the contributions, so they vary rather much in scope and length.

The 21 chapters are arranged in four sections; topics of particular significance to our readers are mentioned in parentheses: I. Developmental Biology (adaptive mechanisms of growth control, biochemical development, developmental pharmacology, comparative growth); II. Biometrical Methods; III. Genetics (genetics of fetal growth and of maturation); IV. Prenatal Growth (anatomy and physiology of placenta, growth in twins, maternal nutrition, metabolism of mother and fetus, fetal endocrinology, development of immune response).

(Vols.2 and 3 will contain sections on postnatal growth, neurobiology, and nutrition.)

32.
M.H.JOHNSON, ed. 1978. DEVELOPMENT IN MAMMALS. Vol.3
North-Holland, Amsterdam, etc. VIII,472 pp., 76 figs., 20 tabs., subject index. Dfl.140.00, $ 61.00

Contributors: Chilton, Daniel, Donahoe, Green, Heath, Martin, Meizel, Monk, Morriss, O, Pratt, Snow, Swann, Thorogood, West

This new volume of a promising series (see Gen. Embryol. Inf. Serv. vol.17, pt.1, 1977, review no.37) definitely fulfils the expectations engendered by the first two volumes. The 12 specialised reviews average some 40 pages in length. Most contain results unpublished at the time of writing as well as new ideas and a certain amount of fertile speculation. Many of the authors are younger scientists who have recently entered the field but are in the forefront of research on mammalian embryos. The overlap between some of the chapters is not a major drawback.

The subject matter is again very diverse but the chapters fall into four broad categories: the acrosome reaction (2 chapters), cell interaction in development (2), stem cells, pluripotentiality and the transmission of the germ line (5), and morphogenesis (one each on proliferation centres, neural crest migration and clonal growth).

The volume is well produced and illustrated with line drawings and good photographic material.

Textbooks

33.
M.J.T.FITZGERALD. 1978. HUMAN EMBRYOLOGY: a regional approach
Harper & Row, Hagerstown. XVI,205 pp., 165 figs., 4 tabs., subject index

The aim of this text is to provide beginning medical students with just enough, but sufficiently clear information on normal human development, along with a brief treatment of the most common malformations. The format is unusual in that, after the first seven chapters dealing with early embryology, later development is treated on a regional basis, in parallel with the students' course in gross anatomy. Thus, from ch.8 onwards separate chapters treat the main body regions and the limbs, while a final chapter deals with the full-term placenta and fetal and neonatal circulation. The introductory chapter has sections on growth and differentiation, mitosis and meiosis, cell death, and the causes of congenital malformations.

Although not all processes are illustrated, and some only diagrammatically, the illustrations are numerous and of good quality. The line drawings are partly original and partly adapted from various sources, and are supplemented by good micrographs. The nine reconstructions of three- and 14-somite embryos at the end of ch.6 are a good visual aid to the understanding of the subsequent regional treatment. Each chapter has a good reading list, including some of the experimental literature, and the book is concluded by a glossary.

34.
R.G.HARRISON. 1978. CLINICAL EMBRYOLOGY
Academic Press, London, etc. Monographs for Students of Medicine. VII,250 pp., 122 figs., subject index. £ 4.80, $ 9.35 (paper)

The author of this text claims to have written an entirely new book as a logical extension of his *Textbook of Human Embryology* of 1959. In fact, what he has done is to take the old book as a basis and tack on new information in an unsystematic manner. The result is an unfortunate blend of fairly recent and very old material.

Many sections taken over from the old book are unbelievably dated (e.g. the greater part of the Introduction and the final chapter on regeneration). What is new are the sections called Clinical Relationships which have been added to almost all chapters, but the original old literature of those chapters has simply been retained.

The illustrations are largely those of the old book, but less well reproduced as far as the half-tones are concerned.

Monographs

35.
M.DVOŘAK. 1978. THE DIFFERENTIATION OF RAT OVA DURING CLEAVAGE
Springer, Berlin, etc. Advan. Anat. Embryol. Cell Biol. vol.55, 2. 131 pp., 62 figs., subject index. DM 64.00, $ 32.00 (paper)

Synthesis of descriptive studies carried out with four other investigators over almost a decade, on over 2,500 ova; electron microscopy, cytochemistry and ultracytochemistry; stage-wise morphological description from 1-cell stage to late blastocyst; surface coats and cell contacts; nucleus and protein synthesis; mitochondria; lysosomes; stored materials; no discussion of cell determination; good electron micrographs; extensive bibliography.

36.
R.V.SHORT, ed. 1979. REPRODUCTION
Brit. Council, Med. Dept., Brit. Med. Bull. vol.35, 2. 111 pp., 25 figs., 11 tabs. £ 6.00, $ 12.50 (paper)

This number of the B.M.B. is obviously meant primarily for members of the medical profession, yet it is of interest to developmental biologists because the reviews it contains are terse, topical and well illustrated, and have very complete and up-to-date reference lists.

We restrict ourselves to listing the first six reviews (average length 8 pp.): Meiosis in mammalian oocytes (Moor and Warnes), *In-vitro* fertilization, embryo transfer and storage (Whittingham), Control of early development (Adamson and Gardner), Sex determination and differentiation (Short), Embryonic signals that establish pregnancy (Heap, Flint and Gadsby), Growth of the fetus (Robinson).

37.
J.VAN BLERKOM and P.MOTTA. 1979. THE CELLULAR BASIS OF MAMMALIAN REPRODUCTION
Urban & Schwarzenberg, Baltimore, etc. XII,252 pp., 235 electron micrographs on 85 pls., subject index. $ 29.50, DM 62.00

Contents: 1. The ovary prior to ovulation (text 9 pp.), 2. The ovary and ovulation (text 9 pp.), 3. The related ducts (text 4 pp.), 4. Physiological and morphological aspects of spermatozoa leading to the attainment of the capacity to fertilize an oocyte (text 7 pp.), 5. Fertilization and preimplantation embryogenesis (text 18 pp.)

This book, with its numerous plates and topical text, will be of great value to both students and researchers. The figures are original scanning and transmission electron micrographs of superb quality, some of them not published previously. Most of the illustrations refer to the rabbit, with rat and mouse in second and third place. The text, on large, closely printed two-column pages, is comprehensive, authoritative and entirely up to date. Stress is placed on morphodynamic processes but physiological and molecular aspects are duly considered as well.

The last chapter, which is obviously of most immediate interest to mammalian embryologists, occupies about one third of the book and has some 240 references. It has sections on fertilisation, the cytoplasm of the preimplantation embryo, the differentiation of major cell organelles (including intercellular junctions and cell surface), and the formation of the endoderm.

The book is superbly produced at a very reasonable price.

REPRODUCTION, SEXUAL DEVELOPMENT, GAMETOGENESIS, FERTILISATION (see also 36, 37,47,50,77,79,88)

Monographs

38.
T.A.DETTLAFF, ed. 1977. CURRENT PROBLEMS IN OOGENESIS (in Russian)
Izd. Nauka, Moscow. Series: Problems in Developmental Biology. 319 pp., 45 figs., 21 pls., 17 tabs., subject and taxonomic indexes. R.2.60

I. Oocyte growth and vitellogenesis (Aisenstadt), II. The nucleus in oogenesis (Gruzova), III. The organisation of mature eggs of amphibians and fishes in the final stages of oogenesis and during maturation (Dettlaff), IV. Meiotic division (Vassetzky), V. Hormonal regulation of vitellogenesis in fishes and amphibians (Goncharov), VI. Mammalian oocytes (Dyban, Baranov), VII. The regulation of respiration during oogenesis (Ozernyuk), VIII. Control of carbohydrate exchange during oogenesis (Milman, Yurovitskij, Ermolaeva), IX. Oocyte maturation as a model for the study of protein synthesis (Stepanov),

X. Use of the oocyte protein-synthetic system for the analysis of the RNA matrix (Borovkov, Sviridov, Kuzin, Korochkin).
Extensive chapter bibliographies (Russian and other); good line drawings, diagrams and photographic plates.

39.
A.GLUCKSMANN. 1978. SEX DETERMINATION AND SEXUAL DIMORPHISM IN MAMMALS
Wykeham, London. The Wykeham Science Series. 179 pp., 10 figs., 8 tabs., subject index. £ 4.75 (paper)

Contents (abridged): I. Sex determination, II. Sexual dimorphism in adult mammals, III. Common features in the sex determination and sexual dimorphism of mammals

This book was written for beginning students, but due to its rather dull style and very sparse illustrations it is doubtful whether it will captivate the average student. It is interesting enough for the dedicated reader and contains no factual errors.

We only consider part I here, which occupies less than half of the text. Here the main objection is that the major sex-determining genes, Tfm and H-Y, are mentioned cursorily but are not placed in proper perspective. This is a missed chance.

The illustrations are restricted to a few diagrams.

40.
P.D.NIEUWKOOP and L.A.SUTASURYA. 1979. PRIMORDIAL GERM CELLS IN THE CHORDATES; embryogenesis and phylogenesis
Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biol. Series 7. XII,187 pp., 45 figs., 2 tabs., author, taxonomic and subject indexes. £ 14.50

Contents: 1. General introduction, 2. Early embryogenesis, with special reference to mesoderm formation, 3. Characteristics of the primordial germ cells, 4. The extra-gonadal and one-time origin of the primordial germ cells, 5. Site and mode of origin of the primordial germ cells, 6. The formation of the gonadal anlagen, 7. The migration of the primordial germ cells, 8. Phylogenetic significance of the embryological data presented, 9. Concluding remarks and some perspectives for further analysis

The writing of this scholarly monograph was prompted by the discovery by the senior author and his collaborators of mesoderm induction in the amphibian blastula, and the later discovery by the two present authors of the mesodermal origin of the primordial germ cells in the urodelan amphibians, a situation that contrasts markedly with that encountered in the anurans. The authors have now assembled all the available information on the descriptive and experimental embryology of the primordial germ cells and early gonad formation in the chordates. In the course of the book they arrive at some interesting broad generalisations, but they are careful to point out to what extent these are speculative and where the gaps in the evidence are that must be filled.

The table of contents above largely speaks for itself. Ch.2 forms the embryological basis for the rest of the book. The generalisation here is that probably in all chordates the mesoderm arises epigenetically from the ectoderm under the influence of the endoderm. Ch.5 is another pivot in the book, since it ends in the conclusion that the two modes of primordial germ cell formation encountered among the amphibians, i.e. preformation in the endoderm *vs.* epigenetic origin from the mesoderm, can probably also be found in other chordate groups. This and other evidence then leads in ch.8 to the tentative hypothesis of an early bifurcation in vertebrate evolution leading

to separate anuran-avian and urodelan-mammalian lines, with the reptiles possibly being divided among the two lines.

The probability of an epigenetic origin of the primordial germ cells in several chordate groups of course raises the problem of the significance of the germinal cytoplasm as a true germ cell determinant. This problem is extensively discussed, the conclusion being that such a role is very unlikely even in the "classical" case of the anurans.

The bibliography contains close to 600 titles and is up to date until 1976/77. The book is well produced and illustrated with very good, mostly original line drawings and some good photographic plates.

41.
B.-M.UEBELE-KALLHARDT. 1978. HUMAN OOCYTES AND THEIR CHROMOSOMES, an atlas
Springer, Berlin, etc. X,106 pp., 53 figs., subject index. DM 48.00, $ 24.00

This beautiful atlas is the result of years of patient work. It is in two main sections, the first of which deals with the stages of first meiotic prophase as observed in stained, air-dried nuclear preparations from ovaries of fetuses aged 18 to 27 weeks. For the second section, dealing with the first and second meiotic divisions, the nuclei were obtained from oocytes taken from adult ovaries and allowed to mature *in vitro*. The material is a selection from more than 2,000 cultured oocytes.

The emphasis is on normal processes in the nucleus and on normal karyotypes, but some structural abnormalities are also illustrated (formation of a quadrivalent, chromosome stickiness and clumping). Brief texts accompany the plates. There is a separate section on materials, methods and terminology. Each section has an up-to-date list of selected references. The book has been produced with the utmost care.

Dissertations

42.
C.PALÉVODY. 1976. L'OVOGENÈSE CHEZ LES COLLEMBOLES ISOTOMIDES. CYTOLOGIE ET APPROCHE PHYSIOLOGIQUE
Ph.D. thesis, Toulouse. 133 pp., 25 figs., 66 pls., 5 tabs. (mimeographed)

Very thorough study on several species of Isotomids, particularly *Folsomia candida*, against a background of reproductive biology; peroxydase as a protein tracer; cytology of oogenesis; factors involved in ovarian cycle; parthenogenesis; line drawings and numerous excellent light and electron micrographs.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

43.
J.A.B.M.THEUNISSEN. 1976. ASPECTS OF GAMETOGENESIS AND RADIATION PATHOLOGY IN THE ONION FLY, Hylemya antiqua (Meigen). I GAMETOGENESIS
D.Agr. thesis, Wageningen. 164 pp., 85 figs., 10 tabs.

Thorough study of gametogenesis with emphasis on spermatogenesis and testis development; cytology, histology, autoradiography, electron microscopy; comparative spermatogenesis in 9 other insect species from 7 orders; oogenesis and ovarian development studied for comparison; excellent line drawings, light and electron micrographs.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

Symposium reports

44.
E.M.RIVERA, introd. 1979. SEXUAL DIFFERENTIATION IN VITRO AND IN VIVO
Tissue Cult. Assoc., Gaithersburg, MD. In Vitro vol.15, no.1. 71 pp., 42 figs., 11 tabs. $ 7.00 (paper)

Contributors: Cunha, Hillensjö, Lasfargues, Oakberg, Ohno, Rivera, Steinberger, Whitten, Wolff

Symposium held in Denver,Colo. in June 1978; interesting reviews and progress reports on avian sex differentiation, H-Y antigen, mouse hermaphrodites, hormone interactions in Sertoli cells, follicular growth and control of oocyte maturation, and epithelial-mesenchymal interactions in the urogenital tract; good illustrations.

IMPLANTATION, PLACENTA, FETAL MEMBRANES AND FLUIDS

Monographs

45.
A.I.BRUCILOVSKIJ. 1976. FUNCTIONAL MORPHOLOGY OF THE PLACENTAL BARRIER IN MAN (in Russian)
Publ. House Zdorovya, Kiev. 136 pp., 32 figs., 13 tabs.

Comparative placentology; development of placenta; structure of placental barrier; histochemistry of p.b.; permeability of p.b.; line drawings, light and electron micrographs; tabular material; ca.80 references until 1974 (40 Russian).

46.
G.CHAMBERLAIN and A.W.WILKINSON, eds. 1979. PLACENTAL TRANSFER
Pitman Medical, Tunbridge Wells (England). X,212 pp., 78 figs., 31 tabs. £ 15.00

Although this collection of technical reviews was written largely by doctors for doctors, its comparative approach makes it useful for mammalian embryologists interested in the fetal stages. All authors but one are British. They consider many different species alongside the human.

Perhaps of most universal interest are the first two chapters on structural-functional correlations in the placenta. Chapters 3-6 deal with maternal, fetal and placental blood flow and with physiological adaptation to diminished placental transfer. The remaining 9 chapters deal with various classes of substances and with some strictly clinical subjects.

Most chapter bibliographies run into 1976 or '77. The volume is adequately illustrated.

Dissertations

47.
G.STEINBERGER. 1976. PLACENTATION BEI MEERSCHWEINCHEN UND KANINCHEN, eine Literaturstudie
D.V.M. thesis, Hannover, 261 pp., 5 figs.

Extensive literature discussion on sexual cycle, ovum, fertilisation, implantation and placentation for the two species (*Cavia porcellus*, *Oryctolagus cuniculus*) separately; separate listing of unclear points.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

TERATOGENESIS, CONGENITAL MALFORMATIONS (see also 51,55,70,71,98)

Monographs

48.
T.V.N.PERSAUD. 1979. TERATOGENESIS, experimental aspects and clinical implications
Fischer, Jena. Exp. Pathol. suppl.4. 128 pp., 51 figs., 23 tabs., subject index. M.45.00 (paper)

Contents (abridged): Regulatory processes during normal and abnormal development; General mechanisms and principles of teratogenesis; Environmental teratogens; Evaluation of teratogenic risks

This is a selective but very useful survey of the subject with emphasis on current concepts, recent research and contemporary experimental techniques. The account is clearly organised and much useful recent information is brought together into tables and diagrams.

The chapter on environmental teratogens has separate sections on laboratory studies, human teratogenesis, and the relevance of the former to the latter. The last chapter has separate sections on the use of the chick embryo and of *in vitro* test systems.

The volume is adequately illustrated. The bibliography of some 900 titles is up to date until 1976 and does not restrict itself to Anglo-Saxon publications.

Symposium reports

49.
N.C.MYRIANTHOPOULOS and D.BERGSMA, eds. 1979. RECENT ADVANCES IN THE DEVELOPMENTAL BIOLOGY OF CENTRAL NERVOUS SYSTEM MALFORMATIONS
Liss, New York. Birth Defects: Original Article Series, vol.XV, 3. XIV,130 pp., 45 figs., 15 tabs., subject index. $ 16.00, Dfl.48.00
available in Europe and the Middle East from European Book Service, Weesp, Netherlands

This symposium was held on the occasion of the 11th World Congress of Neurology (time not specified in the book). The book contains seven competent, medium-length reviews of recent (and some older) work, as well as an introduction and synthesis by the first editor.

We only single out here those contributions that are of particular interest to our readers: Errors in differentiation of the CNS (by Källén); Scanning electron microscope studies of CNS development (by Waterman); Surface molecules involved in interactions among neural cells during development (by Edelman's group); Are there human analogs of the mouse T locus in CNS malformations? (by F. Jacob's group) . Other papers deal with the epidemiology, etiology and prevention of CNS malformations. The references cited go until 1976/77.

The book is well produced and illustrated.

50.
R.L.SUMMITT and D.BERGSMA, eds. 1978. SEX DIFFERENTIATION AND CHROMOSOMAL ABNORMALITIES
Liss, New York. Birth Defects: Orig. Article Series, vol.14, no,6C. XX,434 pp., 160 figs., 67 tabs., subject index. $ 44.00, Dfl.132.00
available in Europe and the Middle East from European Book Service, Weesp, Netherlands

This report of a 1977 symposium is mainly of interest to clinicians. We only consider section I: Selected abnormalities of sex differentiation. This

contains 13 brief to medium-length reviews or research reports by North-American authors. Three are of broader biological significance: H-Y Antigen and abnormal sex differentiation (Wachtel and Koo), True hermaphroditism: etiology and phenotypic considerations (Simpson), and Abnormalities of the Müllerian and Wolffian duct systems (Sarto and Simpson).

DEVELOPMENTAL PATHOLOGY, CANCER (see also 78,83,96)

Monographs

51.
T.V.N.PERSAUD. 1979. PRENATAL PATHOLOGY; Fetal medicine
Thomas, Springfield. XII,199 pp., 76 figs., 31 tabs., subject index. $ 23.00

Contents: I. Pathophysiology of the early conceptus, II. Embryogenesis and developmental studies, III. Regulatory processes during normal and abnormal development, IV. Intrauterine growth and fetal maturity, V. Environmental causes of developmental defects, VI. Morphology and function of chromosomes (by M.Ray), VII. Antenatal diagnosis of genetic diseases, VIII. Prenatal detection of external malformations, IX. Common neonatal problems (by H. Rigatto)

Although this monograph was written primarily for doctors it might be of interest to teratologists. The book intends to bridge the gaps between the many medical disciplines concerned with the fetus. It is a concise survey of the most recent and significant research developments. The treatment is highly selective but much useful information is brought together in numerous tables.

The book is well produced and illustrated and has a selective bibliography of some 450 titles that runs into 1977.

52.
G.B.PIERCE, R.SHIKES and L.M.FINK. 1978. CANCER: A problem of Developmental Biology
Prentice-Hall, Englewood Cliffs, NJ. Found. of Devl. Biol. Series.
XIII,242 pp., 28 figs., 4 tabs., subject index. $ 20.75, £ 11.65

Contents: 1. Introduction, 2. The early development of neoplasms, 3. Tumors as caricatures of tissue renewal, 4. Structure and biochemistry of neoplasms, 5. Origin of neoplastic stem cells, 6. Carcinogenesis, 7. Genetics and neoplasia, 8. Controls, 9. Immunity and neoplasms, 10. Metastasis, 11. Cancer therapy

Obviously this monograph was written primarily for graduate medical students, but the authors' developmental approach makes it suitable as background reading for those biologists who decide to "utilise cancers as easily manipulated models of normal tissue" (quoted from the Preface). The treatment is highly selective and only literature is cited that contributes directly to the theme of development and neoplasia.

Ch.3 is of most practical significance to developmental biologists because it contains concise descriptions and discussions of four "prototype" tumours, all containing multiple stem cell lines, each with different properties: mammalian teratocarcinomas, squamous cell carcinoma, neuroblastoma, and leukemia. Their common denominator is that malignant stem cells may produce normal progeny. Also useful is the appendix at the end of the book, supplying clinical and other data on eight commonly studied tumours in man and mammals.

The book is illustrated mostly with light and electron micrographs. The bibliography contains some 600 titles which run until 1976.

REGENERATION, RENEWAL (see also 5,52,62,82,85,91)

Monographs

53.
T.N.NESMEYANOVA. 1977. EXPERIMENTAL STUDIES IN REGENERATION OF SPINAL NEURONS with an introduction and editoral contributions by D.Scott, Jr.
Winston, Washington; Wiley, New York, etc. XII,267 pp., 68 figs., 8 tabs., subject index. $ 27.50, £ 18.50

Contents: I. Motor reflexes in the hind limbs of dogs after spinal cord transection, II. The importance of additional afferent stimulation for reconditioning the neural connections of the transected spinal cord, III. Regeneration of intraspinal axons in mammals, IV.Stimulation of the growth of intraspinal axons, V. Restoration of motor function in the lower extremities of patients with complete or partial loss of conduction in spinal neurons

According to our information the original Russian edition of this book appeared in 1971. It is apparent from the translation and the bibliography that it was somewhat updated since. It is a comprehensive review of work that was so far little known in the West and originated predominantly from the author's own laboratory and from the biochemists, histologists and neurosurgeons who joined her later. The literature from the Western hemisphere until the late 1960's is also reviewed.

In addition to the table of contents given above we highlight some of the approaches discussed, as follows: the prevention of scar formation by administration of pyrogens, trypsin, hormones and corticosteroids; the significance of the blood supply; the effect of resorptive neural tissue implants; the effect of tissue extracts, NGF, and dinitrylmalonic acid; the effects of physical therapy. Much of the original research reported is on dogs and human subjects.

The bibliography lists some 1,000 titles (it is a pity that it is impossible to see which titles are in Russian or in other East-European languages).

Symposium reports

54.
R.J.GOSS and B.M.CARLSON, organisers. 1978. CONTROL MECHANISMS IN REGENERATION
Am. Soc. of Zoologists, Thousand Oaks, CA. Amer. Zoologist vol.18, no.4. 74 pp., 34 figs., 7 tabs.

Contributors: Carlson, Globus, Goss, Liversage, McCullough, Singer, Stocum, Tassava

This symposium was held in December 1977 in Toronto. Its five contributions do not provide a comprehensive picture of present-day regeneration research in amphibians and other vertebrates but concentrate on two aspects: the cellular mechanisms of neurotropic control (3 papers), and the analysis of morphogenetic controls (2 papers; the contribution by S.V.Bryant is not included because it is accessible elsewhere).

All papers are very competent and readable progress reports or reviews, partly transcending the authors' own research. They are well illustrated.

ORGANOGENESIS, HISTOGENESIS (incl. tissue and organ culture, histochemistry)

(see also 44,49,76,80,85,91,97)

Treatises

55.
G.GOTTLIEB, ed. 1978. EARLY INFLUENCES
Academic Press, New York, etc. Studies on the Developm. of Behavior and the Nervous System vol.4. XVIII,356 pp., 39 figs., 12 tabs., author and subject indexes. $ 22.50, £ 14.60

All contributors to this new volume of an important series are Americans. All chapters are authoritative, well-organised reviews. The editor's thoughtful section introductions and epilogue lend unity to the volume. An attempt has been made to write at a sufficiently basic level, to define technical terms, and to clarify the abstruse issues with which the field abounds.

The chapters of most direct interest to developmental biologists (particularly teratologists) are the four in section 1 dealing with the effects of drugs, radiation, hormones and stress on brain development and behaviour, and the two in section 2 discussing nutritional influences. Section 3 has three chapters on the influences of five kinds of sensory experience, of sensory overload (auditory trauma), and of environmental enrichment.

Textbooks

56.
R.D.LUND. 1978. DEVELOPMENT AND PLASTICITY OF THE BRAIN, an introduction
Oxford Univ. Press, New York, etc. X,370 pp., 105 figs., 7 tabs., subject index. $ 14.95 (cloth), $ 7.95 (paper), £ 4.95 (cloth)

Contents (abridged): I. Introduction (2 chs.), II. Nerve cell biology (3), III. Neural generation and migration (2), IV. The development of neural processes (4), V. The interaction between axons and target cells (3), VI. The role of function in determining connections (1), VII. The adult brain (2), VIII. Summary

This is the first basic textbook on a fascinating but notoriously difficult subject: difficult to study and difficult to present to others. The book is best characterised by quoting the first paragraph of the preface:

"This book is largely concerned with the mechanisms involved in the development and maintenance of predictable organization in the central nervous system of vertebrates, particularly of mammals. Some experiments undertaken on the peripheral nervous system are also described, since certain principles derive from them which may also be relevant to central neural problems. Emphasis is given throughout to the dynamic properties of nerve cells, their interactions, their specificities of behavior, and the aberrations which result from lesions, genetic variation and environmental factors."

The book is didactically very clear. A notable feature is its emphasis on the need for critical assessment of data and scrupulousness in interpretation and extrapolation. Although I am not an expert in this area my distinct impression is that the treatment is well balanced and does justice to most of the multifarious views in which the field abounds, often ending in the tentative conclusion that the truth may be somewhere midway between the extremes.

The illustrations are for the most part simple but effective line drawings. The bibliography numbers over 700 titles and is up to date until the beginning of 1977.

Monographs

57.
B.K.HALL. 1978. DEVELOPMENTAL AND CELLULAR SKELETAL BIOLOGY
Academic Press, New York, etc. X,304 pp., 32 figs., 23 tabs., author and subject indexes. $ 21.00, £ 13.65

Contents: 1. Types of skeletal tissues, 2. The evolution of skeletal tissues, 3. The origin of skeletal cell types, 4. Location of the skeleton within the embryo, 5. Initiation of centres of skeletogenesis, 6. Progenitor cells and their differentiation, 7. Maintenance of the differentiated state, 8. Polarity and morphogenesis, 9. Initiation of skeletal growth

This monograph by a leading investigator in the field is a welcome overview of what is known of the origin, differentiation and growth of the skeleton, with special reference to the vertebrates. It is partly analytical and partly compilatory in nature. The author's approach is very broad indeed and many categories of readers will benefit from the book in various ways. Although some subjects (such as limb development) are spread out over various chapters, unity is maintained through cross referencing.

Although amphibian limb regeneration is referred to in various places, the subject of skeletal regeneration and repair as such is virtually absent: for instance, there is no reference to the promising work on skull bone regeneration in Russia.

Much information is assembled in useful tables. Illustrations (mostly diagrams) are reduced to a minimum. The bibliography contains some 1,600 references (unfortunately without full titles) and is up to date until the end of 1977.

58.
V.HAMBURGER. 1977. THE DEVELOPMENTAL HISTORY OF THE MOTOR NEURON
MIT Press, Cambridge, Mass. Neurosciences Research Program Bull. vol.15, suppl. 37 pp., 23 figs.

Well-illustrated survey based almost exclusively on work in the chick embryo; bibliography of 68 titles, running into 1976.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

59.
M.JACOBSON, ed. 1978. DEVELOPMENT OF SENSORY SYSTEMS
Springer, Berlin, etc. Handbook of Sensory Physiology, vol.9. XII,469 pp., 231 figs., 9 tabs., author and subject indexes. DM 230.00, $ 115.00, £ 63.00

Contents: 1. Development of sensory systems in arthropods (Bate); 2. Continuous nerve cell renewal in the olfactory system (Graziadei, Monti Graziadei); 3. The interactions of periphery and center in the development of dorsal root ganglia (Hughes, Carr); 4. Visual behaviour development in nonmammalian vertebrates (Ingle); 5. Ontogeny of structure and function in the vertebrate auditory system (Rubel); 6. The development of somatosensory thalamus in mammals (Scheibel and Scheibel); 7. Functional modification of the developing visual system (Hirsch and Leventhal); 8. Development of cutaneous sensory receptors in birds (Saxod); 9. Cell death during development of the nervous system (Silver)

This is a collection of reviews of greatly varying length and scope and with little internal cohesion. The only connecting thread is the editor's introduction, which deals in a general way with the nature of hypotheses in this field. No justification is provided for the choice of subjects. The conspicuous absence of a chapter on the development of the retino-tectal

projection in non-mammalian vertebrates is not explained; the reason probably is that there exist recent lengthy reviews of this subject, but they are not mentioned.

The reviews themselves are interesting and well organised. They range in length from about 20 to over 100 pages. Not all chapters are equally up to date; some go no further than 1973/'74 and only one has been updated in proof. The book is well produced and magnificently illustrated with line drawings and photographs.

60.
K.REUTTER. 1978. TASTE ORGAN IN THE BULLHEAD (TELEOSTEI)
Springer, Berlin, etc. Advan. Anat. Embryol. Cell Biol. vol.55, 1. 98 pp., 20 figs., subject index. DM 48.00, $24.00 (paper)

Light microscopical, EM and histochemical study of developing taste buds in regenerating barbels of *Ameiurus nebulosus*; comparison with mammalian taste buds; comparison of barbel regeneration with urodele limb regeneration; treatment with "false neurotransmitters" during regeneration; good scanning and transmission electron micrographs; extensive bibliography.

61.
M.VOGEL. 1978. POSTNATAL DEVELOPMENT OF THE CAT'S RETINA
Springer, Berlin, etc. Advan. Anat. Embryol. Cell Biol. vol.54, 4. 66 pp., 27 figs., 2 tabs., subject index. DM 33.00, $ 16.50 (paper)

Qualitative and quantitative study (mainly EM) of postnatal maturation of retinal area temporally adjacent to optic papilla; 16 stages from 6 h to 136 d postnatally; Computer-aided morphometric analysis of thickness and volumes of the various layers; extensive discussion of findings in other mammals; excellent electron micrographs.

62.
G.VRBOVÁ, T.GORDON and R.JONES. 1978. NERVE-MUSCLE INTERACTION
Chapman and Hall, London. XIV,233 pp., 51 figs., 1 tab., subject index. £ 15.00

Contents: 1. Early muscle development, 2. Development of the motor nerves and their encounter with muscle fibers, 3. Development of the neuromuscular junction, 4. Differentiation of skeletal muscle fibers, 5. The effects of denervation on muscle fibre properties and the regulation of chemosensitivity, 6. Re-innervation of the muscle by its motor nerve, 7. The mammalian motor unit, 8. Plasticity in the neuromuscular system, 9. Some examples of disturbances of nerve-muscle interactions

The first author of this monograph is a one-time associate of the noted Czech myologist E.Gutmann, who died recently and to whom the book is dedicated. It is a readable and well-organised overview of the broadly bio-medical aspects of the subject.

As shown by the table of contents above, it is particularly the first four chapters that are of interest to our readers. The book is written from the point of view of the myologist, and the problem of neuronal specificity and of the possible respecification of neurons during development is not discussed in its own right. The emphasis is of course on work in mammals, but results obtained in birds and lower vertebrates are discussed wherever appropriate, particularly in the early chapters.

The book is illustrated with good line drawings and micrographs. The bibliography of over 800 titles runs well into 1977.

63.
K.J.ZILLES. 1978. ONTOGENESIS OF THE VISUAL SYSTEM
Springer, Berlin, etc. Advan. Anat. Embryol. Cell Biol. vol.54, 3. 138 pp., 43 figs., 11 tabs., subject index. DM 48.00, $ 24.00 (paper)

Qualitative and quantitative light-microscopic study of the ontogenesis of 11 visual brain regions of *Tupaia belangeri* (tree shrew, a primitive primate); seven fetuses and 49 postnatal animals (mostly male) from 36 to 792 days *post coitum*; extensive computer-aided morphometric analysis of fresh volume growth; hypothesis concerning growth curves and spontaneous degeneration of neurons; line drawings.

Dissertations

64.
B.BLOCH. 1978. LES NEURONES PRODUCTEURS DE LH-RH CHEZ L'HOMME AU COURS DE LA VIE FOETALE, étude cyto-immunologique en microscopie optique et en microscopie électronique
M.D. thesis, Besançon. Ann. Sci. Univ. Franche-Comté-Besançon, Med. Pharm., N.S. vol.5. 216 pp., 20 figs. English summary (5 pp.)

Histological, immuno-histochemical and EM study of hypothalamus and pituitary in 20 human fetuses (8-25 weeks) and 4 neonates; identification of neurons producing LH-releasing hormone; photographic plates with French and English captions; extensive literature discussion (close to 100 pp., over 300 references).

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

65.
L.DELATTRE. 1978. ÉTUDE VESTIBULAIRE DES SECTEURS DE LA FACE ET DU CRÂNE DANS LES ONTOGÉNÈSES COMPARÉES ET DANS LA PHYLOGÉNÈSE DES PRIMATES SUPÉRIEURS
D.D. thesis, Lille. 78 pp., 43 figs., 7 tabs.

Study of the planimetric surfaces and central angles of six sectors of the sagittal plane of the skull, centred on the auditory vestibule; ontogenetic part based on man and two species of chimpanzee, from foetus to adult; phylogenetic part based on man and various apes and monkeys; sex differences in man and primates; numerous line drawings, graphs and tables.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

Symposium reports

66.
S.R.BERENBERG, ed. 1977. BRAIN, fetal and infant; current research on normal and abnormal development
Nijhoff, The Hague. XIV,348 pp., 91 figs., 50 tabs., subject index. Dfl.85.00

This volume is based on a symposium held in Paris in December 1976. It is a heterogeneous collection of brief to medium-length research reports, most of which are clinically oriented. Almost all authors are from France or the U.S.A.

We mention the following subjects that could be of interest to our readers: lipids in chick retina during ontogenesis (Mandel *et al.*); morphological maturation of the brain (Rabinowicz *et al.*); developmental plasticity in the visual cortex (Imbert); hormone effects (Legrand); nerve growth factor (a longish review by Arnason and Young); maturation of serotoninergic neurons (Hamon and Bourgoin); development of catecholamine neuron systems (Moore); maturation of cerebral circulation (Sokoloff).

67.
M.A.CORNER, R.E.BAKER, N.E.van de POLL, D.F.SWAAB and H.B.M.UYLINGS, eds. 1978. MATURATION OF THE NERVOUS SYSTEM
Elsevier-North-Holland Biomed. Press, Amsterdam, etc. Progress in Brain Research, vol.48. XII,425 pp., 169 figs., 38 tabs., subject index. Dfl.160.00, $ 71.25

Contents: I. Formation of neuromuscular synapses, II. Central and sensory synaptogenesis, III. Genetic programming of nervous development, IV. Sensory influences upon neurogenesis, V. Hormonal regulation of brain maturation, VI. Neurobehavioral ontogeny

This book arose from a summer school held in Amsterdam in 1977. Of the 55 contributing authors, almost half are Dutch and 11 work at the Netherlands Institute for Brain Research. The others are from various countries all over the globe. All contributions are short to medium-length reviews of recent work partly unpublished at the time of writing. Portions of the discussions are also recorded.

Each of the six sections contains four or five papers. Most of these deal with mammalian material but some, notably in sections II and VI, describe experiments on chick and frog larvae. Although the book is of course selective, the choice of format and topics makes for greater comprehensiveness than is found in the average symposium report, and brings out those areas where the most rapid advances are at present being made.

The book is very well produced and has excellent illustrations.

68.
G.DÖRNER and M.KAWAKAMI, eds. 1978. HORMONES AND BRAIN DEVELOPMENT
Elsevier-North-Holland, Amsterdam, etc. Developments in Endocrinol. vol.3. XIV,473 pp., 146 figs., 65 tabs., index to contributors. Dfl.144.00, $ 64.00

Contents: Hormones and sex-related brain differentiation (25 papers); Hormones and brain differentiation unrelated to sex (15); Hormones and brain maturation (9); Hormones and brain function (9)

This symposium was held in East Berlin in September 1978. More than two-thirds of the contributors came from Eastern Europe (among them 18 from East Germany). Almost all of the 58 papers are brief research reports, reproduced from apparently unedited typescripts. No discussions are recorded.

The contents are so varied as to defy brief review. Specialists in the field will no doubt find much that is of interest. Several papers deal with the effects of neurotransmitters and psychotropic drugs.

The volume is well produced and illustrated.

69.
S.FEDOROFF and L.HERTZ, eds. 1977. CELL, TISSUE, AND ORGAN CULTURES IN NEUROBIOLOGY
Academic Press, New York, etc. XIV,693 pp., 229 figs., 57 tabs., subject index. $ 32.50, £ 20.60

Contents: 1. Characteristics of differentiated cells (4 papers), 2. Differentiation of cells in primary cultures (7), 3. Cell lines and cell strains (3), 4. Phenotypic cell expression (7), 5. Cell interactions (6), 6. Nutrition (2), 7. Use of cell, tissue and organ cultures in neurobiology (2)

Although this book was published more than two years ago it is important enough for our readers to be briefly reviewed here. It is based on an international symposium held in March 1977 but many papers have been expanded, some of the discussion material is incorporated as separate papers, and the discussion sessions have been summarised and edited (section 7). The book has thus become an extremely useful baseline for future work by developmental

neurobiologists on the cellular and supracellular level.

Most of the 31 contributions are medium-length reviews or progress reports from specific institutes in North America and Europe. Many of the reviews have extensive reference lists. The volume is profusely and beautifully illustrated.

70.
G.C.ROSENQUIST and D.BERGSMA, eds. 1978. MORPHOGENESIS AND MALFORMATION OF THE CARDIOVASCULAR SYSTEM
Liss, New York. Birth Defects: Original Article Series vol.14, no.7.
XX,460 pp., 313 figs., 24 tabs., subject index. $ 46.00
available in Europe and the Middle East from European Book Service, Weesp, Netherlands

This symposium took place in the U.S.A. in November 1977. Of the 33 contributors 18 were North Americans and 15 came from Eastern and Western Europe and Japan. Anyone working on heart development will find much of value in the volume. Most contributions are medium-length, liberally illustrated reports of mostly recent original research, carried out with a variety of techniques and experimental procedures on mammals, birds and amphibians.

The first six papers are predominantly or entirely descriptive in nature and concern intracardiac structures. The next five papers discuss cellular and molecular mechanisms of early heart morphogenesis. A group of six papers then deal with various genetically determined heart malformations. The last five papers discuss effects of modifying the embryonic circulation on heart development in the chick. After each group of papers the discussions are briefly summarised.

The book is well produced and has a host of excellent line drawings, halftones and photographs, among them a large number of scanning electron micrographs.

71.
G.S.STENT, ed. 1977. FUNCTION AND FORMATION OF NEURAL SYSTEMS
Dahlem Konferenzen, Berlin. Life Sciences Research Report 6. 365 pp.,
7 figs., 1 tab., subject index, index to contributors. DM 57.00, $ 23.50,
£ 13.80 (paper)

Although this conference report appeared more than two years ago we briefly announce it for those who may have missed it. It is perhaps of greater significance for neurobiologists than for developmental biologists, which is why we highlight only certain parts.

Two of the nine background reviews with which the book begins deal with abnormal neural development. That on mammals (by Dräger, 28 pp.) focusses on postnatal development and discusses eight mutations affecting neural morphogenesis, as well as visual deprivation experiments. That on invertebrates (by Palka, 21 pp.) lists a series of "accidental", genetic or experimentally produced abnormalities in a broad range of species and is concluded by a set of generalisations from these data. The group report on abnormal neural development covers 24 pages and has its own references (participants: Bentley, Dräger, Guillery, Lawrence, Murphey, Palka, Rakic, Ready, Sherman). Some of its subsections are The genetic approach, The study of cell lineage, and Some effects of altered neural activity.

72.
A.VERNADAKIS *et al.*, eds. 1978. MATURATION OF NEUROTRANSMISSION; biochemical aspects
Karger, Basel, etc. VIII,236 pp., 90 figs., 11 tabs., index to contributors. SFr.78.00, $ 39.00

Contents: Maturation of cellular and molecular mechanisms (4 papers); Biosynthesis of neurotransmitters and enzymatic regulation (6); Uptake, storage and transport of neurotransmitters (4); Effects of intrinsic and extrinsic factors in neuronal maturation (6); Development of biochemical correlates of behavior (4)

This symposium was held in Italy in August 1977. The contributors came mainly from the U.S.A. and various West-European countries. Most papers are brief progress reports, while some are reviews of recent work. Ten papers deal (mainly) with chick material, the remainder with various mammals and man. Both the intact organism and cultured cells were used. The stages used range from early embryonic to postnatal (post-hatching), but the primary focus is on early interactions between nerve cells and between them and their target cells.

The volume is well produced and illustrated.

Collections of papers

73.
C.J.GRIFFIN and P.McGRATH. 1978. EMBRYOGENESIS, DEVELOPMENT AND SOME ANOMALIES OF THE UPPER RESPIRATORY TRACT INCLUDING THE SEPTO-MAXILLARY SYNDROME AND ITS TREATMENT
Sydney Univ. Press, Sydney. 114 pp., 43 figs., 4 tabs., subject index.
£ 12.40 (paper)
Distrib. Europe, Middle East, Africa: Internat. Scholarly Book Serv., Letchworth, England; North and South America: Internat. Scholarly Book Serv., Forest Grove, Ore.

Contents: I. Septo-premaxillary complex of man and treatment of some anomalies of its development, 1. Embryonic period of facial development, 2. The foetal and postnatal period, 3. Diagnosis and treatment of the maxillo-septal syndrome; II. Embryogenesis and certain anomalies of the nasopharynx, 4. Embryogenesis and certain anomalies of the nasopharynx: Bony nasopharynx; Soft tissue elements of nasopharynx

Study concerns normal to grossly abnormal material of embryonic, fetal and postnatal periods; particular reference to aetiology of nasal septum deflection, development of cranial base as major determinant of nasopharynx capacity, and development of pharyngeal pituitary; good light micrographs.

74.
W.F.MAROVITZ. 1977. STUDIES IN OTIC EMBRYOGENESIS
Annals Publ. Cy., St.Louis, MO. Ann. Otol., Rhinol. and Laryngol. vol.86, 1, part 2 (suppl.35). 36 pp., 29 figs., 1 tab.

Three publications by Marovitz and associates: ultrastructural development of early rat otocyst (day 9-13 *post coitum*); methods for TEM and SEM of rat otocyst; good electron micrographs.

May be borrowed from the Central Embryological Library, Hubrecht Laboratory, Uppsalalaan 8, 3584 CT Utrecht (Netherlands)

CELLULAR DEVELOPMENTAL BIOLOGY (incl. cell culture, cytochemistry) (see also 30,37,52,56,57,58,59,69,72)

Symposium reports

75.
B.CLARKSON, P.A.MARKS and J.E.TILL, eds. 1978. DIFFERENTIATION OF NORMAL AND NEOPLASTIC HEMATOPOIETIC CELLS. 2 vols.
Cold Spring Harbor Lab., Cold Spring Harbor, N.Y. Cold Spring Harbor Conf. on Cell Proliferation vol.5 A & B. XVI,XIV,994 pp., 272 figs., 4 pls., 191 tabs., index to contrib. and authors, subject index. $ 80.00 (set)

Contents: 1. Ontogeny of hematopoietic development and stem cells (9 papers), 2. Erythrocyte differentiation and regulation (13), 3. Granulocyte and monocyte differentiation and regulation (7), 4. Lymphocyte differentiation and regulation (7), 5. Viruses - transformation and differentiation (11), 6. Cytogenetics and expression of cell-surface antigens (3), 7. Marrow architecture and microenvironment (3), 8. Clinical-pathological relationships and differentiation of human hematopoietic tumors (9)

This is vol.5 of a well-known series of conferences. This one was apparently held some time during 1977. The majority of contributors were North-Americans but many other countries were represented. Most of the 62 papers are brief to medium-length research reports or mixtures of review and research material. The discussions are not recorded. All sections except nrs.6 and 7 have brief introductions by the session chairmen (Till, Marks, Moore, Cantor and Boyse, Baltimore, Lennert).

The volumes are well produced and illustrated.

76.
A.S.G.CURTIS, ed. 1978. CELL-CELL RECOGNITION
Cambridge Univ. Press, Cambridge, etc. Symposia of the Soc. for Exp. Biol. No.32. VIII,478 pp., 63 figs., 36 pls., 59 tabs., author and subject indexes. £ 20.00

Contributors: Burger, Crandall, Curtis, Dales, De Sousa, Ford, Garrod, Greaves, Heslop-Harrison, Hoover, Horder, Katz, Newell, Pierce, Rees, Steinberg, Wiese, Yeoman

This excellent report of a symposium held in September 1977 is a must for all those working in the field themselves. Large parts of it I would even consider required reading for almost every developmental biologist. This particularly holds for three lengthy reviews on the three main competing theories of cell recognition: those of specific adhesion (Burger *et al.*), differential adhesion (Steinberg), and interaction modulation (formerly called the "morphogen" theory) (Curtis). Also extremely valuable is the extensive review by Horder and Martin (85 pp.) on the formation of nerve cell connections, in which they defend the thesis (based mostly on the results of optic nerve regeneration in goldfish) that the major determinants of the development of the nervous system are mechanical forces rather than chemical specificity.

Ten of the contributing authors or groups are British, seven American, and one Swiss. The longer of the 18 contributions are reviews, the shorter ones progress reports, but all are authoritative, up to date and well written. The articles are adequately cross-referenced. The range of recognition phenomena covered includes those in plants, slime moulds, metazoan invertebrates, vertebrates, and lymphocytic and related systems (cellular immunology). The only subject that embryologists will find missing is fertilisation in animals.

The book is well produced and very well illustrated.

77.
E.R.DIRKSEN, D.M.PRESCOTT and C.F.FOX, eds. 1978. CELL REPRODUCTION: in honor of Daniel Mazia
Academic Press, New York, etc. ICN-UCLA Symposia on Molec. and Cell. Biol. vol.12. XVIII,711 pp., 290 figs., 49 tabs., index to contrib., subject index. $ 31.00

Contents: I. Macromolecular control in cell proliferation and growth (6 papers), II. Cell cycle regulation and control of growth (6), III. Control of genetic expression (6), IV. Microtubule assembly *in vitro* and *in vivo* (10), V. Control of fertilization phenomena (5), VI. Chromosome movement and the mitotic apparatus (10), VII. Control of cell division and cell cleavage (8), VIII. Structural and molecular basis of cell movement (5), IX. The differentiated cell (4)

This symposium was held in March 1978; all participants were former and present associates of Professor D.Mazia and colleagues working in related areas. This lends some unity to the book, which otherwise is extremely varied in content. Apart from a few medium-length general talks and reviews most contributions are brief research or progress reports of work recently performed on a large variety of dividing cells. Of the 33 contributing authors and groups two thirds are American, the remainder coming from seven other countries. The discussions are not recorded.

The book is entirely devoted to cellular processes; proliferation at the tissue level is not considered. There are many interesting findings as well as some stimulating speculation in the book, but its varied nature defies a brief listing (see table of contents above). Developmental biologists will be particularly interested in the numerous papers on fertilisation and early cleavage (predominantly in the sea urchin).

The book is well produced from ready copy and the numerous photographs are well reproduced.

78.
M.ERRERA, ed. 1979. FRANCQUI COLLOQUIUM ON DIFFERENTIATION
Springer, Berlin, etc. Differentiation vol.13, no.1. 69 pp., 11 figs., 2 tabs.

Contents: 1. Differentiation in lower eukaryotes (3 papers), 2. Embryonic development (6), 3. Chromatin and gene structure (6), 4. Immunology and cell recognition (5), 5. Expression of differentiation and cancer (4)

Most of the contributions in this symposium report are abstracts or brief summaries, and those who keep abreast with the primary literature will perhaps not find much in them that is new. However, newcomers to the field will find many pointers to very recent developments, and the references appended to most contributions will further point the way.

79.
P.GUERRIER and M.MOREAU, eds. 1978. MEMBRANE CELL REGULATION
Soc. Française de Microsc. Electr., Paris. Biol. Cellul. vol.32, no.1. IV,174 pp., 68 figs., 14 tabs., author and subject indexes. Ffr.80.00 (paper)

Contents: I. Receptors and membrane functions (5 papers), II. Theoretical approaches (2), III. Membrane calcium and cyclic AMP (6), IV. Membrane and cell division (7), V. Membrane in development (5)

This symposium took place at Roscoff, France in December 1977 and was attended by researchers from several European countries (13 groups from France and Belgium) and the U.S.A. The 29 papers are mostly brief research reports or reviews of recent research; some are no more than abstracts; two are in French. No discussions are recorded.

At least two thirds of the papers are of interest to developmental biologists. Among these are five papers on hormone-induced oocyte maturation in invertebrates and *Xenopus*, and four papers on fertilisation and activation in invertebrates and mammals.

The papers have not been edited. They are reproduced from typescripts and many are well illustrated.

80.
C.O.JACOBSON and T.EBENDAL, eds. 1978. FORMSHAPING MOVEMENTS IN NEUROGENESIS Almqvist & Wiksell, Stockholm. 257 pp., 177 figs., 8 tabs., index to contributors. SwKr.180.00

This book arose out of a symposium held in Uppsala, Sweden in September 1977 and was also published as vol.6 of the journal Zoon. The title is misleading, since only four or five of the 31 papers conform to what embryologists understand by formshaping movements in the strict sense. On the other hand, at least 20 papers are of interest to morphogeneticists generally, and several others to developmental neurobiologists as well. The key words here are cell interaction and cell surface. Some papers do not deal with nerve cells at all but are of significance in their own right. Many of the authors are acknowledged leaders in their respective fields, from many different countries.

The papers are brief to medium-length research reports or reviews of recent results. The range of subjects covered is so broad as to defy a summing-up. No editorial effort has been made to give the book more structure, but perhaps this should have been done during the planning of the symposium.

The book is extremely well produced and illustrated.

81.
K.W.KASTRUP and J.H.NIELSEN, eds. 1978. GROWTH FACTORS: Cellular growth processes; Growth factors; hormonal control of growth
Pergamon, Oxford, etc. Proc. 11th FEBS meeting vol.48. VIII,119 pp., 40 figs., 14 tabs., subject index. $ 16.00

Contributors: Ballmer, Froesch, Fryklund, Gibson, Gregory, Hall, Hogue-Angeletti, Hovi, Humbel, Jänne, Trygstad, Velle, von der Mark, Zapf

This is the report of a colloquium held in Copenhagen, Denmark some time in 1977. There were three contributors from Switzerland, two each from three Scandinavian countries, and four from other countries including the U.S.A. The thoughtful 4-page introduction is by Froesch. One paper deals with chondrogenesis rather than growth.

The 13 contributions are mostly medium-length progress reports consisting of review and research material in varying proportions. All of them are strongly biochemically oriented. The following factors and hormones pass in review: purine nucleotides, polyamines, NSILA (= IGF), somatomedins, urogastrone, EGF, growth hormone, NGF, thyroid hormones, and sexual hormones.

The volume, though reproduced from typescripts, is handsomely turned out.

82.
RED CELL DIFFERENTIATION; Diamond-Blackfan and hypoplastic anemias. 1978. Springer, Berlin, etc. Blood Cells vol.4, 1/2. 367 pp., 118 figs., 30 tabs.

Contents: I. Models and concepts of stem cell regulation (5 papers), II. Normal differentiation of erythrocytes (5), III. Erythroid differentiation in Friend leukemia (2), IV. Diamond-Blackfan and experimental hypoplastic anemia (5), V. Free communications (6)

This symposium was held in September 1977 in San Francisco, Cal. The 17 papers in the main part are by specialists from the U.S.A. and various other

countries, and are best characterised as progress reports. Particularly valuable are the group discussions following each paper.

As evident from its title, the papers in section I deal not only with erythrocytes but also with various other hemopoietic cell lines. The free communications deal with various pathological conditions, with Kupffer cells, and with some methodological questions. Each is followed by one or more commentaries by other authors, and replies to these.

The volume is well produced and the photographic illustrations are excellent.

83.
B.SERROU and C.ROSENFELD, eds. 1978. HUMAN LYMPHOCYTE DIFFERENTIATION: ITS APPLICATION TO CANCER
Elsevier/North-Holland Biomed. Press, Amsterdam, etc. INSERM Symposium 8. XVIII,423 pp., 89 figs., 112 tabs., index to contrib. $ 57.75, Dfl.130.00

Contents (abridged): Experimental basis to be applied in humans (8 papers), Differentiation of human B and T lymphocytes (10), Null cells? K cell activity? (10), Gene expression of differentiation (7), Substances modulating the differentiation (5), Normal and leukaemia cell lines as models of differentiation (7), Applications in cancer (9)

This truly international symposium was held at Montpellier, France in March 1978. There were close to 100 participants, about half of whom were from France and the remainder from a broad range of European countries and the U.S.A. The large majority of the 55 papers are (usually brief) research reports. No discussions are recorded. The symposium does not claim to be comprehensive of the entire field of lymphocyte differentiation, and much of the material is clinical in nature.

The papers were reproduced from typescripts without editing. The volume is well printed and illustrated.

DEVELOPMENTAL BIOCHEMISTRY, MOLECULAR BIOLOGY (see also 7,72,75,76,77,78,79, 81,83)

Textbooks

84.
L.NOVER, M.LUCKNER and B.PARTHIER, eds. 1978. ZELLDIFFERENZIERUNG, molekulare Grundlagen und Probleme
Fischer, Jena. 582 pp., 162 figs., 31 tabs., subject index. M 79.00 (paper)

Contributors: Berg, Heese, Krauspe, Luckner, Müntz, Nover, Parthier, Reinbothe, Richter, Rindt, Serfling, Witte, Wollgiehn

This multi-author textbook was written for advanced students and young researchers. It is based on a unified concept of cytodifferentiation, which is defined as all processes (in all kinds of organisms) by which cells become different as a result of selective expression of the same genetic information. The process of differentiation in its molecular aspects is emphasised throughout; it also includes cell division, metabolic adaptation of cells, and terminal cell specialisation. Such subjects as embryonic differentiation, cell interaction and pattern formation are not included.

All co-authors are East-Germans and most are either botanists or bio-medical scientists. After introductory chapters on the biochemistry of gene expression (35 pp.) and on the historical development of concepts, there is a general chapter of almost 100 pages on the molecular basis of cell differentiation. This is didactically very clear and can be read as a short text in its own right; it has a separate section on programmes of gene expression. It is followed by 13 shorter chapters (average length ca. 30 pp.) which each focus on a particular experimental system. The systems range from *E. coli*,

Acetabularia and *Dictyostelium*, through various higher plant and animal systems, to isozymes and the immune system. In several of these chapters considerable attention is devoted to signal reception and transformation by the cells concerned.

Most chapters are up to date until 1976/77; each has its own selective bibliography. The book is illustrated with a host of line drawings and diagrams and a number of good photographs.

Monographs

84a.
K.A.KAFIANI and A.A.KOSTOMAROVA. 1978. INFORMATIONAL MACROMOLECULES IN THE EARLY DEVELOPMENT OF ANIMALS (in Russian)
Publ. House Nauka, Moscow. 335 pp., 87 figures. 1 R.90

Although similar in organisation to the monograph by Neyfakh and Timofeeva (see review no.84b below), this book assumes a more advanced background knowledge of the reader. As the title indicates, it provides a detailed look at the synthesis and control mechanisms governing informational macromolecules in early developmental systems both invertebrate and vertebrate. The authors have placed special emphasis on subjects closer to their research interests and have not included some topics, such as isoenzymes and the mitochondrial genome. Particular emphasis has been placed upon work conducted during the past decade. The book is divided into three parts, dealing with DNA, RNA and proteins. The coverage ranges from the period of gametogenesis to gastrulation, and the organisation of the text centers around specific molecular functions rather than species-specific characteristics. The main emphasis is on the interacting molecular control mechanisms operating during early development, and the authors have succeeded well in relating molecular controls both to biological peculiarities of the species examined and to the overall requirements and organismal functions of the stages of development treated. Overall, this integration has been well done. There is an extensive bibliography of almost 1,300 references.

B.M.Carlson

84b.
A.A.NEYFAKH and M.Ya.TIMOFEEVA. 1977. MOLECULAR BIOLOGY OF DEVELOPMENTAL PROCESSES (in Russian)
Publ.Hause Nauka, Moscow. 312 pp., 74 figs., 2R.22

The stated purpose of this, the first of two books, is to introduce embryologists and molecular biologists to an integrated discipline. This volume, which in many respects is introductory, is devoted principally to describing the major molecular events in developmental systems. The book begins with two short introductory chapters - one outlining some basic facts and principles of embryology and a second, introducing some fundamental information about molecular biology. The remainder of the book is divided into three parts: I. DNA, II. RNA, and III. Protein.

For each of these types of molecules, sub-chapters discuss their synthesis and distribution in the egg, during oogenesis and in embryogenesis. The section on proteins also includes short chapters on the synthesis of tissue-specific proteins and enzymatic activity.

The book is well organised and exceptionally clearly written. For the most part it lives up to its promise of integrating molecular biology and development and in addition, it provides a good synthesis of Western and Soviet work in this field. The publication of the companion volume on regulatory mechanisms in the molecular biology of development will be most welcome.

B.M.Carlson

Symposium reports

85.
J.PAPACONSTANTINOU and W.J.RUTTER, eds. 1978. MOLECULAR CONTROL OF PROLIFERATION AND DIFFERENTIATION
Academic Press, New York, etc. 35th Symp. of the Soc. for Devl.·Biol. XIV, 264 pp., 109 figs., 31 tabs., subject index. $ 19.50, £ 12.65

Contents (abridged): II. Growth factors (3 papers), III. Factors affecting nerve cell differentiation and function (3), IV. Cell interactions in blood cell development (4), V. Cell interactions in the immune system (2), VI. Cell interactions in organogenesis (1), VII. Factors affecting differentiation in lower eukaryotes (2)

When this review appears it is more than three years since the symposium was held (Asilomar, Calif., June 1976). Nevertheless, it is important enough to be reviewed here. All papers are competent, short to medium-length reviews or progress reports of recent work by prominent specialists, and most of the work is highly sophisticated and holds great promise for the future. Several authors place their findings in a wider developmental perspective.

Section II has papers on epidermal and fibroblast growth factor, and on serum factors and hormones. Two papers in section III deal with nerve growth factor. The papers in section IV are concerned with stem cells, erythroid and non-erythroid cells. In section V the findings reported in a paper on lymphocyte differentiation induced by various natural factors could have implications for embryonic induction. Other papers deal with extracellular factors in pancreatic development and with the action of a morphogenetic substance from *Hydra*.

The volume is well produced and illustrated.

DEVELOPMENTAL GENETICS, EVOLUTION (see also 22,40,78)

Monographs

86.
W.J.GEHRING, ed. 1978. GENETIC MOSAICS AND CELL DIFFERENTIATION
Springer, Berlin, etc. Results and Probl. in Cell Differentiation, vol.9. XII,315 pp., 75 figs., 19 tabs., subject index. DM 98.00, $ ca. 53.90

Contributors: Becker, García-Bellido, Gardner, Hall, Illmensee, Janning, McLaren, Merriam, Ripoll, Tokunaga, Wieschaus

As the editor says in his preface, "The relationship of cell lineage and differentiation is one of the most intriguing problems in developmental biology . . . . The extent to which cell differentiation is determined by cell lineage or by cellular interactions is still a matter of debate". About fifteen years ago the problem rather suddenly assumed new importance due to the "rediscovery" of gynandromorphs and mitotic recombination in insects and the development of techniques to make genetic chimaeras in mammals. This volume is the result of the ensuing intensive activity of many workers, generating a whole new field of enquiry.

Everyone who is even superficially familiar with the field will realise from the list of contributors that these are the leading investigators in the area to-day. The ten chapters (8 on *Drosophila* and two on mammals) are authoritative and critical reviews. As in previous volumes of this series, no attempt is made to arrive at generally valid conclusions. Rather, various points of view are represented, so that the reader has to use his own judgement. This leads to considerable overlap among chapters, particularly those on *Drosophila*, but this is no great drawback and in certain areas even has distinct advantages.

All chapters are up to date until at least 1976; many go into 1977 to various degrees, and some even into 1978. The volume is well produced and very well illustrated.

87.
R.G.McKINNELL. 1978. CLONING, nuclear transplantation in amphibia; a critique of results obtained with the technique to which is added a discourse on the methods of the craft
Univ. of Minnesota Press, Minneapolis. XII,319 pp., 80 figs., 2 tabs., 4 pls., combined subject and taxonomic index. $ 22.50

Almost all contemporary textbooks of developmental biology state that nuclear transplantation studies in amphibians have shown that all somatic nuclei are genetically equipotential and totipotent. This is always deduced from the results obtained in *Xenopus*. The author of this book emphatically points out that this conclusion is based on exceptional results and that for it to be valid one has to prove beyond doubt that the donor cells in question were indeed differentiated cells. He takes a critical look at the current dogma on the basis of his own experiments and those of others in *Rana pipiens*, which can indeed be interpreted to point in the direction of nuclear differentiation. Since so much in this area depends on emphasis and interpretation, some readers will be convinced and others not. Nevertheless, the book performs a very useful function.

Although the American work on *Rana* is overemphasized and the possible role of discrepancies in replication rate between somatic cells and eggs is played down somewhat, the book is well written and carries its message across. The brief historical chapter is interesting and all aspects of nuclear transfer in lower vertebrates are well covered, as is some literature generally not well known to embryologists.

The lengthy appendixes describing the "craft" and its main object in America are extremely useful. The bibliography of close to 600 titles is up to date and the book is well produced and illustrated.

88.
S.OHNO. 1979. MAJOR SEX-DETERMINING GENES
Springer, Berlin, etc. Monographs on Endocrinology vol.11. XIV,140 pp., 34 figs., 6 tabs., subject index. DM 39.00, $ 21.50 (cloth)

Contents: I. Sexual dimorphism as a dispensable appendage of the sex-determining mechanism, II. H-Y antigen and chromosomal determination of primary (gonadal) sex, III. Nuclear-cytosol androgen-receptor protein and hormonal secondary (extragonadal) sex determination

Advances in the study of mammalian sex determination have been rapid in the last decade and Susumu Ohno has been one of those most deeply involved. His present monograph reviews the new evidence. The book ends with the sentence: "The point of this book is that the mammalian sex-determining mechanism consists of two independent regulatory hierarchies and that each is placed under the control of essentially one master regulatory gene product".

The two hierarchies concerned are those responsible for primary (gonadal) and secondary (extragonadal) sex determination, respectively. They are dealt with authoritatively and exhaustively in the two main parts of the book, which centre on H-Y antigen and its genetic basis, and on the Tfm gene and its product, the androgen-receptor protein. Part I makes interesting and often amusing reading but does not concern us here.

The book is printed on luxury paper but unfortunately has many printing errors. The illustrations are of high quality. The bibliography of some 250 titles is very up to date.

Symposium reports

89.
G.M.MALACINSKI, organiser. 1978. DEVELOPMENTAL GENETICS OF THE MEXICAN AXOLOTL
Amer. Soc. of Zoologists, Thousand Oaks, Calif. Amer. Zoologist vol.18, 2. 182 pp., 100 figs., 15 tabs. $ 7.00 (paper)

Contributors: Armstrong, Bagnara, Brun, Carroll, DeLanney, Epp, Etkin, Frost, Humphrey, Ide, Justus, Kulikowski, Lemanski, Malacinski, Manasek, Matsumoto, Model, Ortiz, E.C.Raff, R.A.Raff, Sinclair, Tompkins

This report of a symposium held in Toronto in December 1977 is a must for all those working on the axolotl, not just developmental geneticists. Some 35 mutant genes of the axolotl are now known, with phenotypes first recognisable in various developmental phases from oogenesis to the adult. To this reviewer's knowledge all these have been discovered in the U.S.A., and the symposium competently reviews a substantial proportion of the recent work on them carried out in North-America, as well as some other related work, at all levels of biological organisation.
The volume is very well produced and illustrated.

DEVELOPMENTAL PHYSIOLOGY (incl. endocrinology, immunology, behaviour, etc.), (see also 6,55,59,67,68,72,78,81)

Textbooks

90.
M.DURCHON and P.JOLY. 1978. L'ENDOCRINOLOGIE DES INVERTÉBRÉS
Presses Universitaires de France, Paris. Le Biologiste. 238 pp., 93 figs.

The reason why we briefly mention this little book is that, for the developmental biologist, it provides a useful survey of those developmental processes in the main invertebrate classes, from the coelenterates to the tunicates, that are under the control of hormones. Some of these processes are: reproduction (including gametogenesis), sexual differentiation, sexual maturation, and regeneration.
The treatment is didactically clear and up to date. The text is illustrated with clear original line drawings and diagrams. No references are provided and no authors' names are mentioned, except occasionally in the figure legends. The absence of an index is partly compensated for by the detailed table of contents.

Monographs

91.
R.J.GOSS. 1978. THE PHYSIOLOGY OF GROWTH
Academic Press, New York, etc. XII,441 pp., 179 figs., subject index.
$ 29.50, £ 19.15

Contents: 1. Introduction, 2. Renewal of the epidermis, 3. Connective tissues, 4. Bone and cartilage, 5. Turnover of blood cells, 6. Vascular expansion, 7. Hypertension and heart growth, 8. Muscle: atrophy versus hypertrophy, 9. Adaptive plasticity of the nervous system, 10. Intraocular control of lens development, 11. Lactation and mammary growth, 12. Neural regulation of salivary glands, 13. The exocrine pancreas, 14. Liver regeneration, 15. Functional demand in the digestive tract, 16. Compensatory pulmonary hypertrophy, 17. The physiology of renal growth, 18. Pressure on the bladder, 19. Nonreproductive endocrine glands, 20. Experimental regu-

lation of the testis, 21. Cycles of ovarian growth, 22. The pregnant uterus, 23. The placental connection, 24. From embryo to adult

Writing a book like this is a considerable feat for a single author, and one for which we must all be thankful. The book was written "for the physiologist willing to concede that development is a physiological process, and for the developmental biologist concerned with the functional dimensions of growth". The style is fluent, the treatment thought-provoking (as always with this author), and the narrative is continuous thanks to the numerical literature reference system.

Ch.1 ends with a brief section on theories of growth, the penultimate sentence of which sets the stage for the chapters that follow: "Thus, there would seem to be a genetically inherited predisposition for organs to attain a minimal basic size which is then adjusted in accordance with the functional demands impinging on them".

Except for the first and the last, all chapters focus on one or more related organs and tissues. Overall body growth is not treated in its own right, except in the brief last chapter, no doubt because very little is known of its physiological determinants.

The chapter bibliographies consist of selected key references (some of them very recent). The book is illustrated with many excellent original line drawings and a host of beautiful and interesting photographs and micrographs from various sources.

92.
Y.W.LOKE. 1978. IMMUNOLOGY AND IMMUNOPATHOLOGY OF THE HUMAN FOETAL-MATERNAL INTERACTION
Elsevier/North-Holland, Amsterdam, etc. XII,328 pp., 15 figs., 19 tabs., author and subject indexes. Dfl.145.00, $ 64.50, £ 39.15

Contents: 1. Introduction, 2. Immunological status of the human foetus and placenta, 3. Maternal immunocompetence during pregnancy, 4. Evasion and suppression of maternal immune response, 5. Development of immunocompetence in the human foetus, 6. Passage of cells across the human placenta, 7. Consequence of transplacental passage of cells, 8. Transmission of immunoglobulins from mother to foetus before birth, 9. Effects of maternal antibodies on the foetus, 10. Effects of antigenic disparity on foetal-maternal interaction, 11. Immunological factors in pre-eclampsia and eclampsia, 12. Immunological factors in trophoblast neoplasia, 13. Transmission of immunity after birth, 14. Immunological interruption of pregnancy, 15. Conclusion

This monograph provides and overview of the field in the form of a comprehensive account together with an extensive review of the literature. While those animal studies which have resulted in important concepts are included, most of the discussion is based directly on human *in vivo* and *in vitro* data.

The table of contents above speaks for itself. The last chapter is a convenient 7-page summary of the main conclusions. The bibliography contains over 1,000 titles and is up to date until 1977; it is almost entirely English.

The volume is attractively produced but is inordinately expensive, particularly since a recent good collection of reviews in the same field is available at less than half the price (Scott and Jones, eds., 1976, see Gen. Embryol. Inf. Serv. vol.17, part 1, review no.50). Moreover, the volume is very sparsely illustrated.

93.
M.E.MILLER. 1978. HOST DEFENSES IN THE HUMAN NEONATE
Grune & Stratton, New York, etc. XVI,123 pp., 3 figs., 18 tabs., subject index. $ 12.50, £ 8.10

This book was obviously written for doctors and most of the material in it relates to the human. Nevertheless, it may be useful to immuno-embryologists precisely because it concisely reviews all these human studies which may otherwise be difficult to locate.

Most of the material of interest to our readers is to be found in the chapters on the development of the T-cell and B-cell systems, respectively, on the immune response of the neonate, on phagocytic cells, and on humoral mediators. Together these chapters comprise about two-thirds of the book. The reference lists are up to date until 1976/77.

94.
M.NITZAN, ed. 1979. THE INFLUENCE OF MATERNAL HORMONES ON THE FETUS AND NEWBORN
Karger, Basel, etc. Pediat. and Adolescent Endocrinol. vol.5. VIII,286 pp., 47 figs., 20 tabs., SFr.99.00, DM 119.00, $ ca. 59.50 (paper)

This collection of 14 reviews written by clinicians and biomedical scientists is intended to cover most of perinatal endocrinology. The authors are from the U.S.A. (10), the U.K. (2), West Germany and Israel (one each). The reviews average just over 20 pages in length and cover the literature until 1976 or '77.

Each chapter deals with one hormone or class of hormones or other substances. We just enumerate them here: polypeptide hormones; growth hormone, somatomedin and prolactin; posterior pituitary hormones; thyroid hormone; parathyroid hormone and calcitonin; adrenal corticosteroids; catecholamines; renin-angiotensin-aldosterone system; sex hormones (endo- and exogenous); ovulation hormones; insulin; glucagon; prostaglandins.

The book is well produced and illustrated.

95.
T.ZONDEK and L.H.ZONDEK, eds. 1979. FETAL ENDOCRINOLOGY
Karger, Basel, etc. Contrib. Gynecol. Obstet. vol.5. X,158 pp., 39 figs., 7 tabs. SFr.79.00, DM 95.00, $ 47.50 (paper)

Contributors: Aerts, Bloch, Jenkin, Johannisson, Jost, Khan, McClure Browne, McMillen, Saxena, Thorburn, Van Assche, L.H.Zondek, T.Zondek

This collection of reviews gives a survey of the most important findings in this area of research in recent years. The nine chapters deal with both human and animal studies and cover physiology, biochemistry, endocrinology and histology. The reviews range in length from just under ten to over 30 pages, and are clearly organised. The occasional overlap among chapters was intentionally retained.

The volume is well produced and illustrated.

Symposium reports

96.
M.E.GERSHWIN and E.L.COOPER, eds. 1978. ANIMAL MODELS OF COMPARATIVE AND DEVELOPMENTAL ASPECTS OF IMMUNITY AND DISEASE
Pergamon, New York, etc. XIV,396 pp., 38 figs., 74 tabs., index to contributors, subject index. $ 35.00, £ 17.50

This symposium was organised by the American Society of Zoologists in Toronto, December 1977. Its object was to provide and overview of comparative

immunobiology in the broadest sense. The contributors were North Americans as well as some Australians.

Of the 31 papers about one third are of interest to the general zoologist and/or developmental immunologist; most of these are medium-length reviews. In the book as a whole, some papers deal with invertebrates, several with lower vertebrates, one with marsupials, and many with model systems such as the chick, the mouse and the dog.

The book is produced in photo-offset and is adequately illustrated.

97.
J.PIIPER, ed. 1978. RESPIRATORY FUNCTION IN BIRDS, ADULT AND EMBRYONIC
Springer, Berlin, etc. Proceedings in Life Sciences. XIV,310 pp., 147 figs., 30 tabs., subject index. DM 58.00, $ ca. 29.00

This book is based on a symposium held in Paris in 1977. Of the five sessions held, only the last is of particular interest to our readers. It is entitled Respiration of the Embryo: Eggshell, Embryonic Membranes, Circulation, Blood. It consists of 11 short to medium-length research reports or reviews of recent work by contributors from the U.S.A., Japan and various West-European countries.

Five papers and an abstract deal with various aspects of "egg respiration", particularly gas conductance and egg shell properties. One paper each is devoted to eggshell formation, development of the avian respiratory and circulatory systems, gas transfer in the chorioallantois, embryonic hemoglobin, and the effect of restricted gas exchange on embryonic heart rate.

The volume is well produced and exceptionally well illustrated.

98.
A.VEZINHET, organiser. 1979. INFLUENCE DES FACTEURS NUTRITIONNELS SUR LE DÉVELOPPEMENT FOETAL: RÉPERCUSSIONS ULTÉRIEURES
Inst. Natl. de la Rech. Agronomique, Jouy-en-Josas. Ann. Biol. Anim. Biochim. Biophys. vol.19 no.1B. 185 pp., 39 figs., 58 tabs.

This symposium was held at Montpellier, France in May 1978. The report contains 18 brief to medium-length research reports from various medical and agricultural research institutes in France (one from Scotland). Eleven of the papers are in French but all have English summaries. The research reported was done in man and various laboratory and domestic mammals (one paper on the chick).

METHODS (no entries, but see 9)

HISTORY, BIOGRAPHIES, etc.

Monographs

99.
O.HERTWIG. 1977. THE BIOLOGICAL PROBLEM OF TO-DAY, PREFORMATION OR EPIGENESIS? the basis of a theory of organic development, translated from the German by P.Chalmers Mitchell
Dabor, Oceanside, N.Y. XXII,148 pp., 4 figs., combined author/subject index and glossary. $ 15.00

This is a reprinting of the English translation (1900) of Hertwig's influential book *Präformation oder Epigenese* (1894). The major part of the book is a critique of Weissmann's theory of germ plasm, and Hertwig reveals himself as a forerunner of current thought concerning the equipotentiality of nuclei in the organism, coupled with differential activity of the genetic material, as the basis of epigenetic development.

The 12-page introduction that Mazzeo has written for this reprinting places the book in historical perspective. Though interesting, it is not very well written and unfortunately is full of minor spelling errors.