GENERAL EMBRYOLOGICAL INFORMATION SERVICE

AN INTERNATIONAL DIRECTORY
OF CURRENT RESEARCH
IN DEVELOPMENTAL BIOLOGY

VOLUME 17, part 1
EUROPE

data collected during 1977

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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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.

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

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

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

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

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

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

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

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

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

J. Faber
B. Z. Salomé
CHANGES OF ADDRESS IN COUNTRIES OUTSIDE EUROPE

received since the appearance of volume 16, part 2

BAKER, W. K.; Ph.D., Prof. – Dept. of Biol., Univ. of Utah, SALT LAKE CITY, UT 84112, USA
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DOANE, Ms. W. W.; Ph.D. – Dept. of Zool., Arizona State Univ., TEMPE, AZ 85281, USA
GUNBERG, D. L.; Ph.D., Prof. – Anat. Dept., School of Dent., Univ. of Oregon, 611 S.W. Campus Drive, PORTLAND, OR 97201, USA
JACOBSON, M.; Ph.D., Prof. – Dept. of Anat., Coll. of Med., Univ. of Utah, SALT LAKE CITY, UT 84132, USA
LAKSHMANAN, K. K.; Ph.D., Prof. – Dept. of Bot., Postgrad. Ctr., Univ. of Madras, COIMBATORE 641004, India
LEWIS, C. A.; Ph.D. – Zool. Dept., San Diego State Univ., SAN DIEGO, CA, USA
McKINNELL, R. G.; Ph.D., Prof. – Dept. of Genet. and Cell Biol., Univ. of Minnesota, ST. PAUL, MN 55108, USA
OKADA, M.; Ph.D. – Inst. of Biol. Sci., Univ. of Tsukuba, SAKURA, Ibaraki Pref., 300–31 Japan
PICCIANO, D. J. – Occupation. Health and Med. Res., B-1222, Dow Chemical USA, Texas Div., FREEPORT, TX 77541, USA
REESE, D. H.; Ph.D. – Natl. Cancer Inst., N.I.H., Bldg.37, Rm 3 Co2, BETHESDA, MD 20014, USA
THEIL, E. C.; Ph.D., Assoc. Prof. – Dept. of Biochem., N.Carolina State Univ., Box 5050, RALEIGH, NC 27607, USA
TOERIEN, M. J.; Ph.D., D.Sc., Prof. – Dept. of Anat., Univ. of the Orange Free State, BLOEMFON-TEIN, S.Africa; deceased
DIRECTORY OF NAMES AND ADDRESSES
with Subjects of Research
(alphabetical order)

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

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

Entries without research subjects:

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

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

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

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

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

a Cell relations in tissue culture. Gallus gallus (Aves), Mus musculus (Rodentia) (with G. A. DUNN and J. P. HEATH)

ABRAHAM, Ms. I.; Ph. D. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahlstr. 8, 3012 BERN, Switzerland

a Albumin synthesis during metamorphosis. Xenopus laevis (Anura) (with R. WEBER)

ABRO, A. – Inst. of Anat., Univ. of Bergen, Arstadvei 19, 5000 BERGEN, Norway

a Testis development and spermatogenesis. Erinaceus europaeus, Sorex spec., Neomys spec. (Insectivora)

ABRUNHOSA, R.; M. D. – Inst. of Anat., Fac. of Med., Univ. of Porto, Asprena, PORTO, Portugal

a Ultrastructure of the epithelio-mesenchymal interface during early organogenesis. Mus musculus (Rodentia)
b Thymus development. Same species as a
c Transport and fate of ultrastructural tracers injected in the embryonic cardiovascular system. Same species as a

ACCORDI, Ms. F.; Dr. nat.sci. – Ist. di Zool. “Federico Raffaele”, Viale dell’Università 32, 00161 ROMA (7), Italy

ACHERMANN, I.; Dipl. nat. – Zool.-Vergl. Anat. Inst., Univ. Zürich, Küsnitzergasse 16, 8006 ZURICH, Switzerland

ADAMS, C. E.; Dr. – A.R.C. Unit of Reprod. Physiol. and Biochem., 307 Huntingdon Rd., CAMBRIDGE CB3 0JQ, England

ADAMSON, Ms. E. D.; Ph.D. – Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England
Biochemical differentiation in teratoma cells in vitro: 1. appearance of tissue-specific markers, such as acetylcholinesterase, creatine phosphokinase and aldolase; 2. appearance of endoderm-specific biochemical markers for example alpha-fetoprotein and basement membrane associated products such as collagen. Mus musculus (Rodentia)


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 immuno-electrophoretic 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. (Uroidea)
b Cytoplasmic control of first phases of cleavage. (Uroidea)

a Effect of gonadotropins and changes in the germinal vesicle and in the oocyte cytoplasm during maturation. (Acipenseridae, Chondrostei; Amphibia) (with M. N. SKOBLINA)
b Oogenesis. Hydra oligactis (Hydrozoa)

a Development and teratology of the iris and ciliary body in organ culture. Rattus norvegicus (Rodentia) (with O. G. STROEVA)

ALBANESE CARMIGNANI, Ms. M. P.; Prof. – Ist. di Zool. e di Anat. Comp., Univ. di Messina, Via dei Verdi 75, 98100 MESSINA, Italy

c Histochemical determination of the enzymes of carbohydrate metabolism in the Golgi zones of yolk globules. Aplysia depilans (Gastropoda)

ALBERT, J.; D.Sc. – Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France

a Analyse expérimentale de la régionalisation de l’appareil nerveux. (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)

ALEKSEIEVA, Ms. N. P. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.
a Embryology. (Lubomirskiidae, Porifera)

ALEXANDRE, H. L. – Dept. of Molec.Biol., Free Univ.of Brussels, 67 rue des Chevaux, 1640 RHODE-ST.-GENESE, 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 TIMISOARA, 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 Embryonic development and pattern of movements in the embryo. Salmo gairdneri (Teleostei)

ALLÉAUME (BORDES), Ms. N.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France

a Descriptive embryology of the thermosensitive mutant 1122. Drosophila spec. (Diptera)

ALPI, A. – Ist. di Orticol. e Floricolt., Univ. di Pisa, Viale delle Piagge 23, 56100 PISA, Italy

a Gibberellin and cytokinin levels and identification in suspensor. Phaseolus multiflorus (Papilionaceae)

ALVAREZ-GUISADO, L.; Med. Dr. – Inst. F.Oloriz, Fac. of Med., Univ. of Granada, GRANADA, Spain

a Normal and abnormal perinatal heart. Homo sapiens (Primates)

AMBROSI, G.; M.D. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy

a Morphological and experimental research on conjunctival papillae and scleral ossicles. Gallus domesticus (Aves)
b Relationships between vascular and cytoarchitectural patterns during development of spinal cord under normal and experimental conditions. Same species as a
c Vascular patterns in ganglia of the visceral nervous system. Same species as a
AMELS, M. D.; M.D. – Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv.Mihai Viteazul 24, 1900 TIMISOARA, Roumania

a Experimental teratology and teratological screening. Mus musculus, Rattus norvegicus (Rodentia)

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

c Control of vascular histogenesis: 1. working of normal cambium; 2. neoformation of cambium; 3. differentiation of various kinds of xylem cells (hormonal control). Gleditsia triacanthos (Leguminosae)


a Immunology of trophoblast

AMPRINO, R. M.; M.D., Prof. – Inst. of Human Anat., Fac. of Med., Univ. of Bari, Policlinico, 70124 BARI, Italy

a Relations between ectoderm and mesoderm in wing morphogenesis. Gallus domesticus (Aves)

b Regulative capacities of the wing anlage. Same species as a

c Relations between cell density and cell proliferation in the limb bud. Same species as a

ANDERSEN, M.s. L.; DDS – Dept. of Oral Pathol., Royal Dent. Coll., Vennelyst Blvd., 8000 ARHUS C, Denmark

a Migrating epithelial cells in palatal wounds: cytology; scanning electron microscopy; morphometry; treatment with anti-neutrophilic serum. Cavia porcellus (Rodentia) (with O. FEJERSKOV)

ANDRE, F.; D.Sc., Prof. – Lab. de Zool.A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France

a Sexual differentiation in hermaphrodites. Eisenia spec., Dendrobaena spec., Lumbricus spec., Allolobophora spec. (Oligochaeta), Planorbis spec., Lymnaea spec. (Gastropoda)

ANDRIEUX, B.; Dr.3e cycle – Lab. d’Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY-sur-SEINE, France

b Organogène et cytodifférenciation de l’hypophyse (microchirurgie, cytologie ultrastructurale). Pleurodeles walii (Urodela)

ANDRIEUX, M.s.; Licèes Sci. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France

ANGELIER-DELOBEL, M.s. N.; Dr.3e Cycle – Lab. de Génét. du Dév., Univ. Pet M. Curie, Ctr. de Rech. d’Ivy, 67 rue M.Günsbourg, 94200 IVRY-sur-SEINE, France

transcription: visualization of nuclear and chromosomal genes in oocytes; action of inhibitors on nuclear RNA biosynthesis. Pleurodeles walii, P. poireti (Urodela)


a Steroid metabolism studied by incubation with labelled precursors, gas chromatography and TLC in oocytes, embryo and larva of Xenopus laevis, Rana temporaria, Triturus vulgaris (Amphibia), in preimplantation stages of Mus musculus (Rodentia), and in embryos of Gallus domesticus (Aves) and Salmo gairdneri (Teleostei)

ANTON, H. J.; Dr.phil., Prof. – Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)

a Protein metabolism during regeneration processes. Triturus vulgaris. T. alpestris (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, U.S.S.R.

a Experimental and immunological study of maturation processes. Gobius melanostomus, G. barathrocephalus, Mugil cephalus, M. auratus (Teleostei)

ap GWYN, I.; Ph.D. – Zool. Dept., Univ. Coll. of Wales, Pengals, ABERYSTWYTH SY23 3DA, Wales, U.K.

a Function of mitotic apparatus proteins in the interphase part of the cell cycle.

b Modifications of cell surfaces during cell cycle and differentiation (electron microscope microanalysis)


a Size of chromatin subunits in epithelial and fiber cell populations of developing lens; characterization of various chromatin proteins. Gallus gallus (Aves) (with S. P. MODAK)

ARANEGRA-JIMENEZ, M.s. A. – Inst. F.Oloriz, Fac. of Med., Univ. de Granada, GRANADA, Spain

a Experimental embryology of late periods of heart morphology. Gallus gallus (Aves)

ARNOLDS, W. J. A.; M.Sc. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands

a Genomic control of early development studied by X-irradiation induced lethal mutants. Lymnaea stagnalis (Gastropoda)

ARRU, M.s. A.; Dr. – Ist. di Zool., Univ. di Sassari, Via Murroni 25, 07100 SASSARI, Italy

ARTAVANIS-TSAXONAS, S.; Ph.D. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland

a Cloning of insect DNA in E.coli. Drosophila melanogaster (Diptera)

b Biochemical analysis of early development. Same species as a

ARTIS, M.; Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France

a Regeneration of teeth from their germs in adults. Cavia porcellus (Rodentia)

ASHBURNE, M.; Ph.D. – Dept. of Genet., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3II, England
a Control of gene action during development, especially studied in puffing. Drosophila melanogaster (Diptera)
b Chromosome function during development. Anopheles stephensi (Diptera)
a The development of the reproductive system and the modifications induced by treatment with steroid hormones during the course of sexual differentiation. Salmo irideus, S. trutta (Teleosteii), Xenopus laevis (Amura)
ASHWORTH, J. M.; Dr. Prof. – Biol. Dept., Univ. of Essex, Wivenhoe Park, COLCHESTER, Essex CO4 3SQ, England
effect of growth conditions (especially glucose) on development of amoebae. Dictyostelium discoideum (Acralesia)
b Cytogenetics. Same species as a
c Relationship between cell cycle and development. Same species as a
AUGUSTIN, H.; Dr.habil., Prof. – Sekt. Biol.-Pflanzenphysiol., Friedrich Schiller Univ., von-Hase-Weg 3, 69 JENA, D.D.R. (Germany)
AUGUSTI (TOCCO), Ms. G.: Dr. – Lab. of Molec. Embryol., Consiglio Naz. delle Richerche, via Totano 2, ARCO FELICE, C.P.3042, 80100 NAPOLI, Italy
a Mechanisms regulating the expression of differentiated functions in neuroblastoma culture, especially role of cell surface
AROUX, M.; Dr. Méd., Prof. – Lab. d’Histol.-Embryol., Fac. de Méd. de Bièvre, 45 rue des Sts.Pères, 75 PARIS Vle, France
a Perturbations tardives du système nerveux central compatibles avec la vie (baisse de la capacité d’apprentissage). Rattus norvegicus (Rodentia)
b Influence of the nutrition de la mère sur le développement du système nerveux central de la progéniture; amélioration de la capacité d’apprentissage de la progéniture. Rattus rattus (Rodentia)
AUSTIN, C. R.; D.Sc., Prof. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
a Fusion between spermatozoa, eggs and other cells. Mesocricetus auratus, Mus musculus (Rodentia)
BABAYEVA, Ms. A. G.; Dr.med.; – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St. 3, MOSCOW 117469, U.S.S.R.
a The immunological mechanisms controlling the processes of compensatory hypertrophy and regeneration of parenchymal organs. Mus musculus, Rattus norvegicus (Rodentia)
BABBURINA, Ms. E. A.; Dr.biol. – Koltzov’s Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Development of regional differences in neural retina and pigment epithelium (synthesis of DNA, RNA, electron microscopy). Acipenser stellatus, A. gueldenstädtii (Chondrostei) (with V.I. MITASHOV and O. G. STROEVA)
BACHMANN, P.; Dr.–Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM I, B.R.D. (Germany)
a Quantification of chromatin structure during myogenesis (texture analysis). Murus 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)
BÅKSTRÖM, S. A. A.; Fil.Dr. – Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
a Basic proteins during oogenesis and early development (biochemistry, histochemistry, autoradiography). Paracentrotus lividus, Psammochinus miliaris (Echioidae)
Cyclic nucleotides in morphogenesis and behaviour of sea urchin larvae. Psammochinus miliaris (Echioidae)
BADET, Ms. M. T.; Dr.biol.Anim. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France
a Immune reactions against embryos in pregnant females. Salamandra salamandra (Urodela)
a Cephalic induction and organ interactions; skull morphogenesis; interspecific grafts of cephalic territories. Gallus gallus, Coturnix c. japonica (Aves)
BAEVSKY, J. B.; Dr.biol. – A.N. Severtzov Inst. of Evol. Morphol. and Ecol. of Animals, Acad. of Sci. of the USSR, Lenin Ave.33, MOSCOW 117071, U.S.S.R.
a Cytology of embryonic retardation and activation. Mustela zibellina (Carnivora), Rattus spec. (Rodentia)
b State of maternal endocrine glands during embryonic diapause and activation. Same species as a
BAFFONI, G. M.; Dr.Biol., Prof. – Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
a Growth and differentiation of nerve cells. (Cyclostomata; Teleostei; Amphibia; Aves; Mammalia)
b Regeneration of nerve fibres during larval life. (Urodela)
BAGNALL, K. M.; Ph.D. – Dept. of Anat., Med. School, Univ. of Manchester, MANCHESTER M13 9PT, England
a Development of skeleton and of movement. Homo sapiens (Primates)
BAGUÑA, J.; Ph.D. – Dept. de Genet., Univ. de Barcelona, plaça Universidad, BARCELONA-7, Spain
11
Isolation and characterization of morphogenetic factors involved in growth and regeneration. Dugesiast mediterranea (Turbellaria)

b Cell cycle kinetics of neoblasts and differentiating cells (thymidine incorporation). Same species as a

c In vitro culture of neoblasts and differentiated cells. Same species as a

BABILLY, M. 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. - Nethel. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands

a Interaction of nerve cells and behaviour during maturation of the nervous system. Discoglossus pictus, Rana esculenta (Anura), Rattus norvegicus (Rodentia)
b Factors underlying specific interneuronal connections; morphology and physiology of spinal ganglion cells (skin-spinal cord preparation). Rana pipiens, Bufo vulgaris, Discoglossus pictus (Anura)
c Electrophysiology of in vivo and in vitro sensory ganglion cells (skin-spinal cord preparation). Rattus norvegicus (Rodentia)

a Oogenesis. (Rodentia; Primates)
b The effects of X-rays on female germ cells. Same species as a
c The fine structure and metabolic activity of oogonia and oocytes. Same species as a
d Cytology and endocrinology of ovulation, fertilization, and early development in vitro. Rattus norvegicus, Mus musculus (Rodentia), Homo sapiens and other Primates
e Structure and hormonal control of the placenta in organ culture. Homo sapiens (Primates)
f Control of pituitary development and secretion in organ culture. Rattus norvegicus (Rodentia), Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)

BAKHUIS, W. L.; Drs. - Nethel. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands

a Interaction of nerve cells and behaviour during maturation of the nervous system. Discoglossus pictus, Rana esculenta (Anura), Rattus norvegicus (Rodentia)

BALAKHONOV, A. V. - Dept. of Embryol., Leningrad State Univ., Mendeleevskiy St. 5, LENINGRAD 199164, U.S.S.R.
a Action of immunodepressors on reparative and physiological regeneration. Gallus gallus (Aves)

BALAKIERS, M., H. - Dept. of Embryol., Zoöl. Inst., Univ. of Warsaw, Krak. Przedmiescie 26/28, 00-927 WARSZAWA, Poland

a Nucleo-cytoplasmatic interactions during oogenesis and preimplantation development. Mus musculus, Clethrionomys glareolus (Rodentia)
b Sex differentiation. Mus musculus (Rodentia)

BALLS, M.; D.Phil. - Dept. of Hum. Morphol., Med. School, Univ. of Nottingham, Clifton Blvd. NOTTINGHAM NG7 2UH, England

a Neoplasms. Xenopus laevis and other spp. (Amphibia)
b Control of cell division. Xenopus laevis (Anura), Amphiuma means, Triturus cristatus (Urodela)
c Organ culture of liver, heart, skin, kidney and other organs. Amphiuma means, Necturus maculosus (Urodela)
d Development of the immune response and role of thymus. Xenopus laevis (Anura)

BALTUS, M. E. J.; D.Sc. - Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-STE.-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)

BARABANOV, V. M.; Cand.biol.sci. - Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsurupa St.3, MOSCOW 117469, U.S.S.R.

BARASTEGUI ALMACRO, C. - Dept. of Anat., Univ. of Barcelona, C/. Casanova 143, BARCELONA 11, Spain

a Development and reserpine. Gallus domesticus (Aves)
b Regeneration capacity and reserpine. Dugesia gonocephala (Turbellaria)

BARIET, R.; Dr. - Lab. de Biol. Anim. 1er Cycle, Univ. de Rennes, Av. du Gén.Leclerc, 35031 RENNES Cedex, France

a Morphogenesis, metamorphosis and regeneration: fine structure and function of egg-shells, cuticles and epidermal glands (Verson's glands and colletorial glands). Galleria mellonella (Lepidoptera)

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

a Effect of catecholamines in development. Gallus domesticus (Aves)

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

a Differentiation potency of cultured cells injected into larvae. Drosophila melanogaster (Diptera)


a Interaction between factors leading inducer tumour susceptibility and those leading to tumour
Effect of in vitro fertilization on development of chromosome abnormalities. Mus musculus, Rattus spec. (Rodentia), Homo sapiens (Primates)

BARSACCHI (PILONE), Ms. G.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy

a Mitotic and lambrush chromosomes; DNA analysis and in situ RNA/DNA hybridization. (Urodela)

BARSON, A. J.; M.D. – Dept. of Pathol., Univ. of Manchester, Stopford Bldg., Oxford Rd., MANCHESTER M13 9PT, England

BART, A.; D.Sc. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B. P. 36, 59650 VILLENEUVE D’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). Sipylaidea sipylus (Phasmida) (with E. BROWÆYS)
d In vitro analysis of morphogenesis and regeneration. Same species as a
e Limb morphogenesis. Mus musculus (Rodentia) (with X. DESBIENS)

BASTIAN, D. – Lab. d’Anat., Univ. de Paris V, 45 rue des Saints Pères, 75270 PARIS Cedex 06, France

BATTISTONI, Ms. R.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy

a Mitotic and lambrush chromosomes; DNA analysis and in situ RNA/DNA hybridization. (Urodela)

BAUMANN, J. A.; Dr. – Inst. d’Anat., Univ. de Genève, 20 rue École de Médecine, 1211 GENÈVE 4, Switzerland

BAUMGARTEN, H.G.; Dr.med., Prof. – Anat. Inst., Abt. Neuroanat., Univ.-Krankenhaus Eppendorf, Martinistr. 52, 2 HAMBURG 20, B.R.D. (Germany)
a Development of monoamine-containing neurons in the brain, especially effect of neurotoxic drugs and correlation with anterior pituitary hormones. Mus musculus, Rattus spec. (Rodentia)

BAUR, R.; Dr. – Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland

a Morphometry of placenta; comparison of placental villous surface with volume of fetus and placenta during pregnancy and at term. Rattus norvegicus, Felis domestica, Sus domesticus, Bos taurus, Equus caballus, Homo sapiens and other species (Mammalia)

BAUTZ, A.; Dr.Spéc. – Lab. de Zool., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France

a Cellular degeneration in abortive regeneration blastemas: effects of X-irradiation. Dendrocoelum lacteum (Turbellaria)
b Effet de jeûne prolongé sur les capacités de régénération. Même espèce comme a

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

a Larval cells and histoblasts in the abdominal integument. Calliphora erythrocephala (Diptera)
b Mechanism of degeneration of larval cells. Same species as a


a Biology, including the degeneration and metamorphosis. Petronysson spec. (Cyclostomata)

a Morphology of spermatogenesis. Biacatabulum appendiculatum (Caryophyllidea, Cestoda)
b Morphology of spermatogenesis and development. Amphilina japonica (Cestodária, Cestoda)


a Breeding of genetically tagged strains for use in developmental biology. Oryctolagus cuniculus (Lagomorpha)
b Developmental biology and genetics of gametes. Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)
c Actiology of heteroploidiy. Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)

BEAUMONT, A.; D.Sc., Prof. – Lab.de Biol.-Vertébrés, Centre d’Orsay, Univ. de Paris XI, Bât. 441, 91405 ORSAY, France

BEAUPAIN (CREPY), Ms. D.; D.Sc. – Inst d’Embryol. du C.N.R.S. et du Collège de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

a La différenciation chimique du pancréas de l’embryon. Gallus domesticus (Aves)
b Erythropoïèse embryonnaire. Même espèce comme a

BEAUPAIN, R.; Dr. – Inst. d’Embryol. du C.N.R.S. et du Collège de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

a Effects on DNA synthesis of X-irradiation and DNA repair in developing and regressing embryonic organs. Gallus domesticus (Aves)

BECCHETTI, E.; Dott.Sci.Biol. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy

a Histochemistry of blood vessel morphogenesis in vitro. Bos taurus (Artiodactyla)
b Epithelio-mesenchymal interactions in lung and skin morphogenesis in vitro (histochemistry, ultrastructure, biochemistry). Gallus domesticus (Aves)


a The effect of trypan blue on development. Rattus spec. (Rodentia), Mustela putorius furo (Carnivora)
b Embryonic nutrition. Same species as a
c The postnatal maturation of intestinal epithelium. Rattus spec., Cavia porcellus (Rodentia),

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Oryctolagus cuniculus (Lagomorpha), Mustela putorius furo (Carnivora)

BECKER, V.; Dr.med., Prof. - Pathol. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 8-10, 8520 ERLANGEN, B.R.D. (Germany)

a General and special pathology of placenta. Homo sapiens (Primates)
b Embryology and teratology of the liver, especially of the bile ducts. Same species as a c Embryology and teratology of the kidney, 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 (Urodele) (with A. JAYLET and V. FERRIER)
b The recessive semi-lethal factor ac: temperature-sensitivity of homozygous mutants; maternal effect in the progeny of mutant females. Pleurodeles waltli (Urodele) (with M. FERNANDEZ)
c Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. Same species as b (with F. GASSER and A. JAYLET)
d Mesodermal determination of the posterior neural plate. Ambystoma mexicanum (Urodela)

BEETZ, J.; M.D., Prof. - Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
a Influence of inorganic ions on mitosis in neuroblasts. Carassius morosus (Phasmida)
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)


a Chemical mutagenesis (Urodele) (with A. JAYLET and V. FERRIER)
b The recessive semi-lethal factor ac: temperature-sensitivity of homozygous mutants; maternal effect in the progeny of mutant females. Pleurodeles waltli (Urodele) (with M. FERNANDEZ)
c Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. Same species as b (with F. GASSER and A. JAYLET)
d Mesodermal determination of the posterior neural plate. Ambystoma mexicanum (Urodela)

BEETZ, M. B. - Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
a Influence of inorganic ions on mitosis in neuroblasts. Carassius morosus (Phasmida)
b Specific uterine proteins (e.g. uteroglobin) and their hormonally controlled interference with blastocyst development. Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)
c Experiments on development of accessory male genital glands. Oryctolagus cuniculus (Lagomorpha)

BEINBRECH, G.; Dr., Prof. - Zool. Inst. der Univ., Arb.gr. Muskelphysiol., Hindenburgplatz 55, 44 MÜNSTER/Westf., B.R.D. (Germany)
a Development of flight muscles during metamorphosis: formation of the myofibres and of the sarcotubular system. Phormia terraenovae (Diptera)

BELLAIRS, A. d'A.; D.Sc., Prof. - Dept. of Anat., St. Mary's Hosp. Med. School, Norfolk Place, LONDON W2 1PG, England
a Morphogenesis of skeleton. Many species (Reptilia; Aves; Mammalia)
b Embryonic membranes. Many species (Reptilia)
c Regeneration. Same species as b

a Electron microscopy and histochemistry of yolk formation. Gallus domesticus (Aves)
b Cell migration within the embryo. Same species as a (with P. PORTCH and E. J. SANDERS (Canada))
c Cleavage. Same species as a (with F. LORENZ, Davis, Calif.)
d Scanning electron microscopy in the embryo. Same species as a
c Freeze-fracture studies of embryos. Same species as a (with A. S. BREATNACH, St. Mary's Hosp.)

BELLOUSSOV, L. V.; Dr.biol. - Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
a Patterns of tensile stresses, contact cell polarization and their relation to differentiation of axial mesoderm, Rana temporaria (Anura), Gallus domesticus (Aves)
b Growth rhythms and morphogenesis. Hydra spec., Thecaphora (Hydrozoa)

BENEDETTI, L.; Dr.Biol. - Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy
a Development of intramedullary ganglion cells. (Labridae & Syngathidae: Teleostei)
b Glycogen in the central nervous system; viviparous and ovoviviparous spp. (Teleostei)

a Development of enzyme systems before and after birth. Homo sapiens (Primates)
b Premature diagnosis of metabolic diseases by cultured amniotic cell enzyme assay. Same species as a

BERTENEN, K.; M.D. - Lab. of Exper. Embryol., Inst. of Obstet. and Gynäcol., Med. Acad., Karowa 2, 00-315 WARSZAWA, Poland
a Electron microscopy of pigment granule formation in melanophores. Pterophyllum scalare (Cichlidae), Lebiasis reticulatus (Pecichlidae, Teleostei)
b Ultrastructure of the development of flame cells in the skin. Hippocampus spec. (Teleostei)
c Interference microscopy of tadpole heart cell cycle, measuring of mitochondrial amount and structure by vital fluorimetry; electron microscopy of cells during different states of cell cycle. Xenopus laevis (Anura)

BERGERER, J.; D.Sc., Prof. - Stat. Biol., place Georges-Teissier, 29211 ROSCOFF, France
a Physiology of spawning and induction of meiosis in the oocytes. Patella vulgata, P. aspera, P. depressa, Gibbula cineraria (Gastropoda)
b Regression and regeneration of genital tract in the seasonal sexual cycle. Littorina saxatilis (Gastropoda)

BERGHÖF, J.; Ir. - Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands
Experiments

BERKOVITZ, B.K. B. - Anat. Dept., Bristol Univ., University Walk, BRISTOL BS8 1TD, England

no work on developmental biology in progress

BERNARD, Ms. J.; M.Sc. - Lab. de Morphogen. Végét., Univ. d’Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France

a Experiments on the working of vegetative and floral meristems. Pisum sativum (Leguminosae)

BERNARD, H.P.; Ph.D. - Abt. Zellbiol., Biozentrum der Univ., Klingenbergrstr. 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, M.G.; Ph.D., Prof. - Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). Rattus rattus (Rodentia)
b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)

BERREUR (BONNEFANTI), Ms. J.; Dr.es Sci. - Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France

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

a Effects of X-irradiation on central nervous development. Rattus spec. (Rodentia)
b Development of cerebral and cerebellar cortex. Same species as a
c Regeneration in the central nervous system. Same species as a

BERTINI, Ms. M.; M.D. - Cell and Moléc. Biol. Lab., Dept. of Human Anat., Univ. of Torino, Corso M.d’Azezgio 52, 10126 TORINO, Italy

a Cell membrane differentiation; immunohistochemistry of surface macromolecules. Mus musculus (Rodentia)
b Membrane-mediated growth control in BHK (baby hamster kidney) cells. Mesocricetus auratus (Rodentia)

BERTMAR, G.; Ph.D. - Sect. of Ecol. Zool., Dept. of Biol., Univ. of Umeå, 90187 UMEA, Sweden

a Experimental developmental morphology of the olfactory organ. Salmo spec. (Teleostei)

BERTOLANI, R.; Dr.Biol. - Ist. di Anat. Comp., Univ. di Modena, Via Berengario 14, 41100 MODENA, Italy

a Morphology of neotenic and metamorphosed animals. Triturus alpestris (Urodela)
b Gametogenesis of neotenic and amphibic animals. Macrobiotus spp., Hypsiibius spp., Isohypsibius spp., Diphascon spp. (Tardigrada)

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

BERTON, J.P.; Dr. - Ctr. de Biol. Appl., Fond. Hersent-Luzarche, Univ. de Tours, 36290 AZAY-LE-FERRON, France - Ctr. de Rech. Vét. et Zootechn., Lab. de Physiol, de la Reprod., (INRA), 37 NOUZILLY, France

BERTOUT, M.; Dr.3e cycle - Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D’ASCQ, France

a Action hormonale au niveau du noyau des cellules germinales mâles et femelles. Nereis spec. (Polychaeta)

BESSE, G.; Dr. - Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France

a Influence des facteurs externes et internes sur les cycles sexuels des femelles. Ligia oceanica, Porcellio dilatatus (Isopoda, Crustacea)

BETTANIN (BELGRANO), Ms. S.; Dr. nat.sci. - Ist. di Zool., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy

a Embryonic development of a parthenogenetic marine form. Penilia avirostris (Cladocera, Crustacea) (with N. DELLA CROCE)
b Growth of the embryo. Same species as a (with N. DELLA CROCE)
c Formation of resting eggs. Same species as a (with N. DELLA CROCE)

BEUG, H.; Ph.D. - Max-Planck Inst. für Virusforsch., Abt.III, Spemannstr. 35-III, 74 TÜBINGEN, B.R.D. (Germany)
a Mechanism of transformation of embryonic fibroblasts by avian sarcoma viruses (RNA-tumor). Gallus domesticus (Aves)

BEYNON, A.D. G.; Ph.D. - Dept. of Oral Anat., Dental School, Northumberland Rd., NEWCASTLE upon Tyne NE1 8TA, England

BEYSE, J.; Dr.reer.nat., Dipl.Biol. - Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)
a Relations between electrolyte milieu and gene activities in giant chromosomes; direct measurements of ion contents in nuclei and cytoplasm. Chironomus thummi (Diptera)

BEZEM, J.J.; Ir. - Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands

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

BIELANSKA-Osuchowska, Ms. Z.; Dr. - Dept. of Histol. & Embryol., Warsaw Agric. Univ., ul.Nowoursynowska 166, 02-766 WARSZAWA, Poland

a Histochimiey and ultrastructure of the development of gonads, adrenals, and placenta. Sus scrofa domestica (Artiodactyla)
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.reer.nat. - Zool. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG 1, B.R.D. (Germany)
a Myogenesis; immunology of muscular proteins; in vitro translation. Drosophila melanogaster (Diptera)


BOER, G. J.; Dr. - Nethel. Inst. for Brain Res., Jdijk 28, AMSTERDAM, Netherlands
a Interaction with hormones during maturation and adaptation of the nervous system. Rattus norvegicus (Rodentia), Homo sapiens (Primates)

BOER, K.; Dr. - Nethel. Inst. for Brain Res., Jdijk 28, AMSTERDAM, Netherlands
a Interaction with hormones during maturation and adaptation of the nervous system. Rattus norvegicus (Rodentia), Homo sapiens (Primates)

BOERKEMA, P. M. - Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland
a Gene expression in somatic cell hybrids. Gallus domesticus (Aves), Rattus spec. (Rodentia)

BOHN, H.; Dr.reer.nat. - Zool. Inst. der Univ., Luisenstr. 14, 8 MÜNCHEN 2, B.R.D. (Germany)
a Wound healing in vivo and in vitro. Leucophaea maderae (Blattodea)

BOILLY, B.; D.Sc., Prof. - Lab. de Morphol. Exp., Univ. des Sci. et Techn., B.P. 36, 59650 VILLENEUVE D’ASCQ, France
a Development of regeneration cells (dedifferentiation, activation, differentiation); determination of this development. (Annelida)
b Factors of regenerative morphogenesis, especially nervous system, tissular contacts. (Annelida)

BOLETZKY, S. von; Ph.D. - Lab. Arago, Univ. de Paris VI, 66650 BANYULS-sur-MER, France
a Embryonic and post-embryonic development. (Cephalopoda)

BOLOGNARI, A.; Prof. - Ist. di Zool. e di Anat. Comp., Univ. di Messina, Via dei Verdi 75, 98100 MESSINA, Italy
a Nature of initial and definitive yolk globules and modification of the yolk (structure, ultrastructure, cytochemistry). Aplysia depilans (Gastropoda)
b Differences between the primary nucleolus and the amphibinuclei in oocytes (autoradiography, ultrastructure and cytochemistry). Patella coerulea (Gastropoda)
c Structure, ultrastructure and autoradiography of nucleolini in oocytes. (Mollusca)
d Histochemical distribution of the enzymes of carbohydrate metabolism in the Golgi zones of yolk globules. Same species as a

BONARI, J. C.; Dr.Spéc. - Lab. de Zool.II (Morphol. et Ecol.), Univ. des Sci. et Techn. du Languedoc, Place E.Bataillon, 34060 MONTPELLIER, France
a Ecophysiology of post-embryonic development. Pisaura mirabilis (Araneida, Arachnida)

BONDI, C.; Dott., Prof. - Ist. di Anat. Comp., Univ. di Perugia, via A. Pascoli, 06100 PERUGIA, Italy
a Magnetic field action on nervous system development. Rana esculenta, Bufo vulgaris (Anura)
b Action of antiandrogens on the ultrastructure of male genital organs. Cavia porcellus (Rodentia)

BONS, J.; D.Sc., Lab. de Biogeogr. et Ecol. des Vertébr., École Prat. des Hautes Études, place E. Bataillon, 34060 MONTPELLIER, France
a Embryonic development. Lactertidae, Agamidae (Lacertilia)

BONTKOE, Ms. E. H. M.; Drs. - Dept. of Obstet. and Gynecol., Univ. of Amsterdam, Wilhelmina Gasthuis, 1e Helmerstr. 104, AMSTERDAM, Netherlands
a Psychogenic influences on uterine motility and on fetal development. Canis familiaris (Carnivora), Ovis aries, Sus scrofa (Artiodactyla), Oryctolagus cuniculus (Lagomorpha)

BOOIJ, (NIEMEYER), Ms. E. K.; M.Sc. - Zool.Lab., State Univ. of Utrecht, Transitorium III, Pasteuran 8, UTRECHT, Netherlands
a Influence of protein synthesis inhibitors on the cell cycle. Lymnaea stagnalis (Gastropoda)
b Significance of early cleavage cycles and programmed division pattern; correlation of division anomalies and abnormal division chronology with specific morphogenetic disturbances. Same species as a

BOPP, M.; Dr.reer.nat., Prof. - Bot. Inst., Univ. Heidelberg, Hofmeisterweg 4, 69 HEIDELBERG, B.R.D. (Germany)
a Development; morphogenesis of protomna. Funaria hygrometrica (Musci)
b Shoot growth. Sinapis spec. (Cruciferae), Pismum sativum (Papilionaceae)
c Tissue culture; growth and differentiation under the action of herbicides. Nicotiana tabacum (Solanaceae), Anagallis arvensis (Primulaceae)

BOSOULT, G.; Dr.spéc. – Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 66921 VILLEURBANNE, France

BOSSY, J. G. M.; M.D., Prof. - Dept. of Anat., Univ. of Montpellier, Section of Nèmes, av.Kennedy, 30000 NMES, France
a Development and maturation of the central nervous system in the fetus. Homo sapiens (Primates)

BOTFRENBROOD, Ms. E. C.; Ph.D. - Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Analysis of dorso-ventral and crano-caudal polarity in mesoderm induction. Ambystoma mexicanum (Urodela) (with P. D. NIEUWKOOP and K. HARA)

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b Role of mesodermal induction in pattern formation. Same species as a, and Triturus alpestris (Urodela)

BOTH, N. J. de; Ph.D. – Pathol. Anat. II, Erasmus Univ., Dr. Molenwaterplein 40, ROTTERDAM, Netherlands

a Influence of Rauscher leukemia virus on blood formation. Mus musculus (Rodentia)

BOTTKE, W.; Dr.rer.nat. – Zool. Inst. der Univ., Lehrst. für Allg. Zool., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)

a Oogenesis, especially the origin of yolk and the follicle cell-oocyte interactions (electron microscopy, autoradiography, electrophoresis). Planorarius corneus, Lymnaea stagnalis, Bithynia tentaculara, Valvata piscinalis (Gastropoda)

b Chromosomal structure during endomitosis, mitosis and meiosis in the hermaphroditic gland (electron microscopy, autoradiography, cytophotometry). Planorarius corneus, Lymnaea stagnalis (Gastropoda)

c Ferritin yolk. (Gastropoda)

BOTTON, B. – Lab. de Physiol. Végét., Univ. de Nancy I, C.O. 140, 54037 NANCY Cedex, France

a Morphogenesis of aggregated organs (coremia and rhizomorphs). Sphaerostilbe repens (Ascomycetes)

BOUCAU, J. C.; D.Sc. – Lab. de Biol. Anim., Univ. Paris VI (P.et M. Curie), 4 place Jussieu. 75230 PARIS Cedex 05, France

a Expression of mosaicism in allophenic chimæras. Pleurodeles waltl, Ambystoma mexicanum (Urodela)

b Cellular interactions in development

BOURNSELL, J. C.; Dr. – A.R.C. Unit of Reprod. Physiol.& Biochem., Anim. Res. Station, 307 Huntingdon Rd., CAMBRIDGE CB3 0Q, England


a Regeneration and morphogenesis. (Porifera)

BOUTHIER, A. – Lab. de Zool., École Norm. Supér., 46 rue d’Ulm, 75230 PARIS Cedex 05, France

a Omnochrome metabolism during development in larvae and adults of normal and “albinor” mutant strains. Locusta migratoria (Orthoptera)

b Hormonal control of pigmentation. Same species as a

BOUVTT, J. L.; Dr.Spec. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de TRI 38041 GRENOBLE, France

a Cell proliferation in the pectoral fin bud; differentiation of the apical ectodermal ridge. Salmo trutta fario (Teleostei)

b Destruction of the egg shell by the peridermal cells which envelope the yolk mass (transmission and scanning electron microscopy). Same species as a

BOWNES, M.; D.Phil. – Dept. of Biol., Univ. of Essex, Wivenhoe Park, COLCHESTER CO4 3SQ, England

a Mutations altering the organisation of the embryo. Drosophila melanogaster (Diptera)

b Attempts to experimentally induce polarity reversals in embryos using techniques of centrifugation and UV irradiation. Same species as a

c Experiments on the mechanism of regeneration in imaginal discs. Same species as a
d Developmental effects of exposing embryos to ether vapour. Same species as a


a Relative duration of development and normal table. Ambystoma mexicanum (Urodela)

BRACHT, J. L. A.; M.D., D.Sc., Prof. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-STERGENÈSE, Belgium

a Synthesis of DNA, RNA and protein, and energy production during maturation. Xenopus laevis (Anura)

b Concanavalin A binding to cell membranes during development. Same species as a

c Induction of maturation by organomercurials. Same species as a
d Role of ions and SH groups in the induction of maturation and in differentiation without cleavage. Chaetopterus spec. (Polychaeta)

e Role of polyanimes in egg development (Echinoidae)

BRADAMANTE, Z.; 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. KOSTOVIC)

b Differentiation of the intercellular matrix during ontogenesis (histology, histochemistry, electron microscopy). Same species as a (with A. ŠVAJGER and Lj. KOSTOVIC)

BRAGT, J. van; Dr., Jr. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O. Box 30, WAGENINGEN, Netherlands

a Endogenous hormone levels and parthenocarpic fruit set. Pyrus spec., Malus spec. (Rosaceae)

b Endogenous cytokinins and regeneration of sprouts on leaf cuttings. ornamental spp. (Angiospermae)


a Biosynthesis of soluble proteins in early development (isoelectric focusing, autoradiography). (Amphibia) (with P. T. v. d. SAAG, Hubrecht Lab.,)

b Biosynthesis of soluble lens crystallins in early and late development (isoelectric focusing, autoradiography). Anas platyrhynchos (Aves) (with H. van der STARRE)

c Isoelectric focusing of some enzymes during lens development. Same species as b, and Gallus
domesticus (Aves) (with H. van der STARRE)

d Ontogeny and localisation of the gamma-crystallins (immunofluorescence). (Anura, Uroidea) (with D. S. McDEVITT, Philadelphia)


a Nonsurgical recovery, transplantation and storage of embryos, domestic species (Mammalia)


b 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. (Uroidea)

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 (Uroidea), Xenopus laevis (Anura)

c Development of retinotectal connections (surgery); electrophysiological mapping of the optic projections. Same species as b

BRAUM, E.; Dr. – Inst. für Hydrobiol. und Fisch.wiss., Univ. Hamburg, Olbersweg 24, 2 HAMBURG Altona I, B.R.D. (Germany)

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

b The relation of external oxygen deficiency and embryogenesis. Clupea harengus (Teleostei)

BREATNACH, A. S.; M.D., Prof. – Dept. of Anat., St. Mary’s Hosp. Med. School, Paddington, LONDON W2 1PQ, England

a Freeze-fracture replication of early blastoderm, Gallus domesticus (Aves)

b Transmission electron microscopy and freeze fracture of fetal skin. Homo sapiens (Primates)


a Developmental genetics of the nervous system. Caenorhabditis elegans (Nematoda)

BRUGEL, F. M. A. van; Dr. – Genet. Lab., State Univ., Kaiserstr. 63, LEIDEN, Netherlands

a Differentiation in white-motted and Notch mutants. Drosophila spec. (Diptera)

BRIARTY, L. G.; Ph.D. – Bot. Dept., Nottingham Univ., University Park, NOTTINGHAM NG7 2RD, England

BRICHOVÁ (MÜLLEROVÁ), Ms. H. M.: M.D. – Inst. of Embryol., Fac. of Med., Charles Univ., Albertov 4, 12800 PRAHA 2, Czechoslovakia

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

a Développement embryonnaire de la glande uropygienne. Anas platyrhynchos (Aves) (avec L. GOMOT)

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

a Le développement in vivo et in vitro du cœur. Rana temporaria, Xenopus laevis (Anura) (avec L. GOMOT)

BRIEGLEB, W.; Dr. rer.nat. – Inst. für Flugmedizin der DFVLR, Kölnerstr. 70, 53 BONN-Bad Godesberg, B.R.D. (Germany)

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

b Teratogenetic and genetic anomalies induced by simulated weightlessness (fast running clinostat). Tribolum confusion (Coleoptera) (with J. NEUBERT)

c Effect of simulated weightlessness on ultrastructure of the embryonic vestibular organ. (Anura) (with J. NEUBERT)

BRINKMANN, A. O.; M.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnburgerweg 10, LEIDEN, Netherlands

a Steroid production in testes during fetal development; sensitivity for luteinizing hormone (LH), chorionic gonadotropin (HCG), and the steroid biosynthesis inhibitor aminogluthetimide phosphate (AGP); relation with differentiation of genital ducts. Cavia porcellus (Rodentia)

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

BROWNYES, Ms. E. – Serv. de Biol. Anim., Univ., des Sc. et Techn. de Lille, B.P. 36, 59650 Villeneuve d'Ascq, France

a Wing morphogenesis and regeneration (experimental study, ultrastructure). Sipylloidea sipylus (Phasmda)


BRUEL, Ms. M. Th.; Dr.3e cycle – Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUßIERE, 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 (chalone) involved in the regulation of cell proliferation during embryonic development. Pleurodeles waltl (Uroidea)

b Autoradiography and cytophotometry of the relations between proliferation and differentiation in embryonic cell populations. Same species as a

BRUIN, J. P. C. de; Drs. – Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands

da Development and correctibility of behaviour. Rattus norvegicus (Rodentia)

BRUINSMA, J.; Dr., Prof. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands

BRUN, B. – Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

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Embryonic Fertilization
Morphogenesis
Interactions
Enzymes
Development
Activity
Experiments
Developmental changes in activity of liver carbamylphosphate synthetase. Ambystoma mexicanum. (Urodela)

Histones in early embryonic development. Xenopus laevis (Anura)

CHARNIAUX-COTTON, M. H.; D. Sc., Prof. - Lab. Sex. et Repr. des Invertébrés, Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France


Description and control of oogenesis and maturation. Same species as a

CHÂTEAUREYNAUD-DUPRAT, M. P.; D. Sc. - Lab. de Zoöl. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France

Immune reactions against embryos in pregnant females. Salamandra salamandra (Urodela), Rattus spec. (Rodentia)

CHAUVIN, G. R.; Dr. 3ème cycle - Lab. de Biol. Anim. 1er Cycle, Univ. de Rennes, Av. du Gén. Leclerc, 35031 RENNES Cedex, France

Anatomy and cytology of the genital tract and its glands; egg formation. Monopis spec., Galleria mellonella, Korscheltellus spec. (Lepidoptera)

Anatomical and physiological patterns allowing larval development in dry conditions. Monopis spec., Finea spec., Tineola spec. (Lepidoptera)

Development of the central nervous system. Gallus domesticus (Aves)

Development of cerebral vesicles. Same species as a

CHECIU, M.; Biol. - Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMISOARA, Romania

Experimental teratology of the central nervous system. Gallus domesticus (Aves)

Development of cerebral vesicles. Same species as a


Experimental teratology; transfer of embryos. Mus musculus, Rattus norvegicus (Rodentia)

CHEN, P. S.; Dr. phil., Prof. - Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland

Paragonal substance, amino acids and peptides. Drosophila melanogaster, D. spec. (Diptera)

CHEVALLIER, A. D.; Dr. spéc. - Lab. de Zool., Dépt. de Biol., Univ. Sci. et Méd. de Grenoble, B.P. 53, 38041 GRENOBLE, France

Development of axial skeleton, rib basket and girdles in homo- and xenoplastic transplantation experiments. Gallus domesticus, Coturnix japonica (Aves)

CHEVREAU, J. P.; Dr. Méd., Prof. - Dépt. d’Histol.-Embryol., Univ. de Paris XII, 6 rue du Gén.Sarrail, 94000 CRETEIL, France

CHIBON, P.; D. Sc., Prof. - Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, Centre de Tri, 38041 GRENOBLE, France

Nuclear labelling of embryonic cells (autoradiography). Pleurodeles waltl, Triturus alpestris (Urodela)

Morphogenetic abilities and differentiation of neural crest cells. Same species as a

Origin and differentiation of teeth. Rana spec., Bufo spec. (Anura), Pleurodeles waltl (Urodela)

Cellular proliferation in the embryo: kinetics and differentiation. Pleurodeles waltl (Urodela)

CHIEFFI, G.; M.D., Prof. - Ist. e Museo di Zool., Univ. di Napoli, Via Mezzocannone 8, 80134 NAPOLI, Italy


Surface changes during muscle cell differentiation. Gallus domesticus (Aves)


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

CHOFFEL, M. C. - Lab. d’Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

Développement de la langue et du larynx. Homo sapiens (Primates) (avec A. DOLLANDER et R. SEMBA (Japan))

CHOROSZEWSKA-LELCIŃSKA, M.; Dr. biol. - Lab. of Exp. Embryol., Inst. of Obstet. and Gynecol., Med. Acad. Karowa 2, 00-315 WARSZAWA, Poland

Effect of different proportions of amino acids in maternal blood and of single amino acid excess on the embryo. Rattus spec. (Rodentia)

Analysis of kininogenetic substances (kallikrein, kininogen, kininase, biologically active polypeptides) in endometrial secretions. Same species as a

CHOURAQI, M. J. - Lab. de Zool. et d’Embryol. Exp., Univ. Louis-Pasteur, 12 rue de l’Université, 67000 STRASBOURG, France

The role of the hypophysis in hormonal activity of embryonic gonads. Gallus domesticus, Anas platyrhynchos (Aves), Mus musculus, Rattus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

CHRIST, B.; Dr.med., Prof. - Lehrst. für Anat.I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)

Differentiation of somites, Gallus domesticus, Coturnix c. japonica (Aves)

Ultrastructure of connective tissue differentiation. Gallus domesticus (Aves)

Scanning and transmission electron microscopy of prelaying stages. Same species as a

Origin and development of musculature. Same species as a

Development of the embryonic kidney. Same species as a, and Homo sapiens (Primates)

Migration of embryonic cells. Same species as b

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a Regularities of the oocyte maturation process. (Acipenseridae; Chondrostei; Amphibia) (with T. A. DETTLAFFF, F. E. FEULGENGUER AND A. S. STEPHANOV)

CLOVER, R. M.; D.D., Ph.D., Prof. – Dept. of Anat., Charles Univ., U nemoence 3, 12800 PRAGA 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 polyclone chromosomes in the prenatal suspensor cells. Phaseolus coccineus (Papilionaceae)

CIPPEPOTTINI, Ms. M. CONTI; Dr. rer. nat. – Lab. Antropol., Univ. di Camerino, Via Filippo Camerini 5, 62032 CAMERINO, Italy

CLAIRAMBAULT, P.; D.Sc. – Équipe de Neuroembryol., Lab. d’Anat. Comp., Univ. Paris VII, 2 place Jussieu, 75221 PARIS Cedex 05, France

a Morphogenesis of primary and secondary optic centres and pathways. (Teleosti; Crossopterygi; Amphibia; Aves; Mammalia)

CLAVERT, A. J. J.; Dr. méd. – Inst. d’Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

a Eye development and lens differentiation. Oryctolagus cuniculus (Lagomorpha)
b Teratogenicity of glucose injection into the amniotic cavity. Same species as a

CLAVERT, J. J.; D.Sc., Prof. – Inst. d’Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

a Déterminisme de la symétrie bilatérale. Gallus domesticus, Anas platyrhychos (Aves)
b Chimiotorégénèse (venoms), Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

a Properties of lens mRNAs: regulation of stability. Gallus domesticus (Aves) (with D. E. S. TRUMAN, J. JACKSON, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))
b Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. Gallus domesticus (Aves), Mus musculus (Rodentia) (with D. E. S. TRUMAN, D. J. PRITCHARD, J. C. CAMPBELL (Edinburgh), and D. S. Mc DEVLITT (Philadelphia))
c Ultrastructure, immunology, and cell properties of lenses with normal and genetically modified cell membranes. Same species as b (with D. J. PRITCHARD and D. I. DE POMERAI)
d Standardisation of lens antibodies. Many species (with all lens immunochemists willing to collaborate)
e Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as b (with D. J. PRITCHARD and D. I. DE POMERAI)
f In vitro analysis of transdifferentiation of neural and pigmented retina. Same species as a (with D. J. PRITCHARD and D. I. DE POMERAI)
g In vitro analysis of teratogens (with D. J. PRITCHARD and D. I. DE POMERAI)

CLEGG, E. J.; M.D., Ph.D., Prof. – Dept. of Anat., Marischal Coll., Univ. of Aberdeen, ABERDEEN AB9 1AS, Scotland, U.K.
a Effect of hypoxia on preimplantation stages. Mus musculus (Rodentia)

CLEMEN, G.; Dr. – Lehrstuhl für spez. Zool., Zool. Inst. der Univ., Hüfferstr. 1, 4400 MÜNSTER, B.R.D. (Germany)
a Light and scanning electron microscopy of the teeth in the upper jaw and the palate of the larval, neotene, and metamorphosed Ambystoma mexicanum (Urodela)
b Ultrastructural changes of the skin of metamorphosed animals transplanted in larvae. Salamandra salamandra (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)

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, C.; D.Phil., Ph.D. – Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain

a Embryology of the caecum and veriform appendix (organ culture). Rattus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

COCHARD, P.; Dr.spec. – Inst. d’Embryol, du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

a Experiments on the differentiation of the parasympathetic enteric ganglia, especially tissue interactions. Gallus gallus, Coturnix c. japonica (Aves)
b Retrograde influence of the target organs innervated by sympathetic ganglia on the development of presynaptic cholinergic terminals. Mus musculus (Rodentia)

COCK, A. W. A. M. de; Drs. – Dept. of Bot., Sect. Molec. Developm. Biol., Cathol. Univ., Toernooiveld, NIMJEGEN, 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
a Preimplantation development in vivo and in vitro. Mus musculus (Rodentia)

DABAGIAN (ERAMICHEVA), Ms. N. V.; Cand. Biol. - Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, Moscow 117212, U.S.S.R.
a Autoradiography of cell populations in regeneracion of the retina. Rana temporaria (Anura)
b Development of the ciliary body (scanning and transmission electron microscopy). Same species as a, and Rattus spec. (Rodentia)

DAUGERRE de HUREAUX (PIGEAULT), Ms. N.; D.Sc. - Lab. de Zool. Exp., Univ. de Bordeaux 1, Av. des Facultés, 33405 TALENCE, France
a Embryology. Sphaeraeuma spec. (Isopoda, Crustacea) (With M. LASSÈGUES)
b Embryonic development of brain and cephalic glands. Same species as a

DAMERO, Ms. F.; D.Sc. - Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
a Morphogenèse du poumon: 1. déterminisme de la maturation des structures spécifiques de l'épithélium (ultrastructure); 2. évolution du métabolisme du tissu pulmonaire (biosynthèse des lipides, activité enzymatique). Gallus gallus (Aves), Rattus spec. (Rodentia) (avec L. MARIN)

DAMJANOV, I.; M.D., D.Sc. - Inst. de Pathol., Fac. de Med., Univ. of Zagreb, Salata 10, P.O.Box 936, 41001 ZAGREB, Yugoslavia

DANIELI, G. A.; Dr.biol. - Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
a Differentiation of salivary glands during larval development. Drosophila hydei (Diptera)


D'ANNA, T.; Dr.nat.sci. - Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Enzyme activity in embryonic development. (Ascidiae)
b Respiratory metabolism during embryonic development. (Ascidiae)
c Ultrastructure of dermal chromatophores. Discoglossus pictus (Anura)
d Glycogen in growing oocytes and developing eggs. (Ascidiae)

a Control of protein and nucleic acid synthesis during oogenesis and embryogenesis, especially mRNA, poly(A) processing. Xenopus laevis (Anura)

DAVID (BÖGLI), Ms. D.; D.Sc. - Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIÈRE, France
a Action du DDT sur le développement de l’embryon; analyse des résidus. (Aves)

a Influence of environmental conditions and thyroxine on the reaction of the follicle to hormones. (Acipenseridae, Chondrostei) (with T. A. DETTLAFF)

DAWES, C. M.; Ph.D. - Dept. of Physiol., Royal Vet. Coll., Royal College St., LONDON NW1 0TU, England
a Respiration and acid-base regulation. Gallus domesticus (Aves)
b The physiological basis of hatching. Same species as a

DECROY (BRIERS), Ms. M.; D.Sc.Chim. - Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 ROUEN-ST-GENÈSE, Belgium
a Rôle éventuel des lysosomes dans l’utilisation du vitellus au cours du développement embryonnaire. (Amphibia)

DEGENHARDT, K.-H.; Dr.med., Prof. - Inst. für Humangenet. der Univ., Paul-Ehrlich St. 41, 6 FRANKFURT/Main 70, B.R.D. (Germany)
a Environmental influences on chromosomal mosaicism; correlations between chromosomal aberrations and special malformations. Mus musculus (Rodentia)

DELARUE, M.; Dr.3e Cycle - Lab. d’ImmunoL., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France
a Nuclear and cytoplasmic transplantation. Bufonidae (Anura)

DELAY, B. - Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France
a Influence des facteurs abiotiques (température) sur le développement embryonnaire des espèces souterraines. Bathysciola spec., Sponeonoma spec., Antocharis spec. (Coleoptera)
b Influence des facteurs abiotiques sur la reproduction. Sponeonoma longicornis (Bathysciinae, Coleoptera)

DELEANU, M.; Dr.med. - Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMISOARA, Romania
a Tissue culture; embryo culture. Gallus domesticus (Aves)

DE LEO, G.; Dr.nat.sci. - Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy
a Embryonic development. Sepiolida rondeletii (Cephalopoda)
b Ultrastructure of eggs. Sabellaria spec., Hydroidea norvegica (Polychacta), Bolina spec. (Ctenophora)
c Ultrastructure of the oocyte. Amphioxus lanceolatus (Cephalochordata)
d Characterization of mitochondrial DNA of unfertilized, fertilized, and cleaving egg. Ciona intestinalis (Ascidiae)

DELLA CROCE, N.; Dr.nat.sci., Prof. - Ist. di Zool., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
a Embryonic development of a parthenogenetic marine form. Penilia avirostris (Cladocera, Crustacea) (with S. BETTANIN)
Growth mechanisms

DENIS, H. A.; Dr.ès Sci. – Centre de Génét. Moléc. du CNRS, 91190 GIF-sur-YVETTE, France

a Mécanismes biochimiques de l’oogénèse. Xenopus laevis (Anura)

DENKER, H.-W.; Dr.zzt.nat., Dr.med. – Abt. Anat. der Rhein.-Westf. Techn. Hochschule, Melatener Str. 211, 54 AACHEN, B.R.D. (Germany)

b Implantation: dissolution of blastocyst coverings, attachment, invasion (morphology, histochefy, 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)

c Determination of trophoblast and inner cell mass during cleavage and blastocyst formation. Oryctolagus cuniculus (Lagomorpha), Mus musculus, Mesocricetus auratus (Rodentia), Felis sylvestris sylvestris catus (Carnivora)

DENNE, M. P.; Ph.D. – Dept. of Forest. and Wood Sci., Univ. Coll. of North Wales, BANGOR, Gwynedd LL57 2UW, Wales, U.K.

a Environmental control of xylem development. Pinus sylvestris, Picea sitchensis (Gymnospermae)

DENNHÖFER, M. L.; Dr.zzt.nat. – Inst. für Entw.physiol., Univ. zu Köln, Gyrhofstr. 17, 5 KÖLN 41, B.R.D. (Germany)

a In vitro study of the relation between puffing and development of salivary gland chromosomes. Drosophila melanogaster (Diptera)

b Development (growth) of salivary gland chromosomes in vitro. Same species as a

DENOULET, Ph.; M.Sc. – Lab. de Génét. du Dév., Univ. Pet M. Curie, Ctr. de Rech. d’Ivy, 67 rue M. Günzburg, 94200 IVRY-sur-SEINE, France

a Biosynthesis of RNA during oogenesis. Pleurodeles poireti (Urodele)

DENUCÉ, J. M.; Dr., Prof. – Dept. of Zool., Cathol. Univ., Toernooiowed, NIJMEGEN, Netherlands

a Morphology, physiology, and biochemistry of the hatching glands. Oryzias latipes, Brachydanio rerio (Teleostei), Xenopus laevis (Anura), Ciona intestinalis (Ascidiaeces)

b Changes in protein pattern during development. Ephedratis fluviatilis (Porifera), Bombyx mori (Lepidoptera), Oryzias latipes, Brachydanio rerio (Teleostei)


a Developmental genetics of mutants with abnormalities of the inner ear. Mus musculus (Rodentia)

b Developmental genetics of mutants with abnormalities of pigmentation. Same species as a

c Mosaicism. Same species as a

DEPARIS, P.; D.Sc., Prof. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France

a Hematopoiesis. (Amphibia)

b Tissue transplantation. Pleurodeles waltl (Urodele)

c Hemoglobin switch (immunofluorescence; in vitro culture). (Urodele) (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 (Echinidea)


a Ultrastructure, immunology, and cell properties of lenses with normal and genetically modified cell membranes. Gallus domesticus (Aves), Mus musculus (Rodentia) (with R. M. CLAYTON and D. J. PRITCHARD)

b Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with R. M. CLAYTON and D. J. PRITCHARD)

c In vitro analysis of transdifferentiation of neural and pigmented retina. Gallus domesticus (Aves) (with R. M. CLAYTON and D. J. PRITCHARD)

d In vitro analysis of teratogens. (with R. M. CLAYTON and D. J. PRITCHARD)

DERAY, A.; Dr.3e Cycle – Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France

a Différenciation sexuelle des hybrides femelles et des individus des espèces parentes. (Aves) (avec L. GOMOT)

DERI, P.; Dr.Biol. – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy

a Chromosomal aspects of regeneration and development. Dugesia benazzii (Turbellaria)

b Ultrastructural and electrophoretic aspects of oogenesis. (Nudibranchia, Gastropoda)

DERKSEN, J.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiowed, NIJMEGEN, Netherlands

a Biochemistry and ultrastructure of specific nuclear ribonucleoprotein fractions. Drosophila hydei (Diptera)

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

a Physiology of fertilization. Ciona intestinalis, Ascidia macula, Phallusia mammillata (Asciidiae)

DESBINSI, D. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D’ASCOQ, France

a Limb morphogenesis. Mus musculus (Rodentia) (with A. BART)

DESSER-WIEST, Ms. L; Dr. – Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, WIEN, Austria

a Growth regulation. (Rodentia)
b Influence of hormones on liver regeneration. (Rodentia)

DESSERTÉ, O. H. J.; Dts. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTER-

DAM-O., Netherlands

a Histones in early embryonic development. Xenopus laevis (Anura)

DISVAUX, 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)


av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

b Biochemical and electronmicrographic study of RNA metabolism in embryonic skin, lung and

erythroblasts. Gallus domesticus (Aves)

DETTLAFF, Ms. T. A.; Dr.biol., Prof. – Inst. de Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.

26, MOSCOW 117334, U.S.S.R.

a Effect of maternal diabetes on embryonic development in vivo and in vitro. Rattus norvegicus

(Rodentia)

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,

B.R.D. (Germany)

b Postembryonic differentiation and regeneration of imaginal discs in vivo and in vitro. Euphylla

kühnii (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)

DHAINAUT, A.; D.Sc. – Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P. 36, 59650

VILLENEUVE D’ASCO, France

a Oogenesis in the absence of brain hormone. (Nereidae, Polychaeta)

b Golgi complex evolution and poly saccharide secretion in the oocyte. Nereis kühnii (Polychaeta)


Cuvier, 75005 PARIS, France

a Anatomy, histology, cytology and ultrastructure of larva, metamorphosis, and postlarva.

Aleyoidium polyoom, Bowerbankia imbricata, Flustridella hispida (Ctenostomata, Ectoprocta)

b Larva and metamorphosis. Various spp. (Cleistostomata; Cyclostomata, Ectoprocta)


Centre de Tri, 38041 GRENOBLE, France

a Formation of larval ridges in feather filaments. Gallus gallus. Anas platyrhynchos (Aves)

b Fine structure and composition of developing keratin. Same species as a, and Mus musculus

(Rodentia), Lacerta muralis (Lacertilia)


DD1 4HN, Scotland, U.K.

a Distribution of tons in oocytes (electron microscope analysis; stereology). Bufo bufo (Anura)

DIDIFR (MARTIN), Ms. L.; D.Sc. – Lab. de Biol. Anim., Univ. de Clermont. B.P.45, 63170

AUBIÈRE, France

a Experiments on germ cell population and gonad organogenesis. Gallus domesticus, Coturnix

coturnix (Aves)

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

a Action of the herbicides 2,4,5-T and simazine on the embryon. (Aves)


de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

b 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 GRANDI, Ms. F.; Dr. – Inst. of Zool., Univ. of Bologna, Via S.Giacomo 9, 40126 BOLOGNA, Italy

a X-ray destruction of germ cells, sterile gonad development and sex differentiation. Bufo bufo,

Rana dalmatina (Anura)

b Descriptive and experimental study of development and sex differentiation of genital apparatus.

Sepia officinalis (Cephalopoda)

c Regeneration and origin of germ cells. Mercierella enigmatica (Scrupulidae, 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)
Ribosomal RNA synthesis during ocpuerellar regeneration. Hydrodides norvegica (Polychaeta)
Cyclic nucleotides during embryonic development. Ciona intestinalis (Asciidea)
Endocrine control of gametogenesis and metamorphosis. (Polychaeta)

Localization of enzymes within the embryo and in subcellular fractions. Acheta domesticus (Orthoptera), Dysdcerus intermedius (Heteroptera)
Protein differentiation, ontogeny of enzyme patterns. Same species as a
Energy metabolism and metabolism of nucleic acids, nucleotides, and cofactors during development. Same species as a
Nucleic acids in oogenesis. Dysdcerus intermedius (Heteroptera)

Developmental biochemistry of “detoxicating” enzymes in embryonic, fetal, and neonatal tissues (tissue culture). Gallus domesticus (Aves), Mus musculus, Rattus spec. (Rodentia), Homo sapiens (Primates)
Xenobiotic and endocrinological factors affecting development of detoxicating and carbohydrate-metabolising enzymes. Some species as a

The effects of hyperglycaemia and insulin on embryonic tissues grown in vitro. Gallus gallus (Aves)

The differentiation of adipose tissue in vitro. Some species as a

Prenatal development of muscles and connective tissue. Homo sapiens (Primates)
Mechanism and effect of ultrasonically induced red cell stasis on development. Gallus domesticus (Aves)
Stimulation of tissue regeneration by ultrasound: 1. protein synthesis; 2. cell mobility. Rattus spec. (Rodentia)

Factors influencing neuron differentiation in embryonic ganglia in culture. Gallus domesticus (Aves)
Oriental mechanisms in migrating cells and extending axons in vitro and in vivo

Mode of action of intra-uterine devices: 1. hormone concentrations in blood at critical stages of cycle and gestation; 2. enzymic and hormonal composition of uterine secretions; 3. tissue reactions to intra-uterine materials. Mus musculus (Rodentia); Macaca mulatta, Papio papio (Primates)

Recovery and attempted transfer of eggs. Macaca mulatta (Primates)

The cellular basis of morphogenesis using embryological mutants. Gallus domesticus (Aves), Mus musculus (Rodentia)

Formation of adhesions in reaggregating cells: embryonic cells, Gallus domesticus (Aves), cultured cell lines, various species

Conception. (Mammalia)

Changes in ultrastructure, protein and RNA synthesis of salivary glands during pauripar formation in relation to the action of ecdysterone. Drosophila lebanonensis (Diptera)
The influence of controlling factors provided by the physiological clock on timing of pauripar formation. Same species as a

Regeneration of skin. Erinaceus europeaus (Insectivora), Martes zibellina, Vulpes vulpes, Alopex lagopus, Felis catus, Mustela lutreola (Carnivora), Gallus gallus, Columba livia (Aves)
Microcinematography of the embryo sac before and shortly after fertilization. Galanthus nivalis (Amaryllidaceae), Torenia fournieri (Scrophulariaceae) 
b) Embryogenesis in situ and the development of embryos in culture. Linum usitatissimum (Linaceae), Jasione montana (Campanulaceae)

EVANGELISTI, M. R.; Dr.Sci.Biol. - Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy 
Induction of yolk protein synthesis in cultured embryonic liver cells. Gallus domesticus (Aves)
Yolk transport mechanism in ovarian follicle, Gallus domesticus (Aves)
EVANS, C. W.; Ph.D. - Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K.
Measurement of cell adhesion of lymphocytes and its role in circulation, disease and development. Mus musculus (Rodentia) 
Effect of immune recognition on reproduction, development and colony formation. Various spp. (Demospongiae, Porifera)
In vitro and in vivo growth, determination, and differentiation of teratoma cells, Mus musculus (Rodentia)
EVANS, P. M.; Ph.D. - Zool. Dept., Univ. Coll. of Wales, Penglais, ABERYSTWYTH SY23 3DA, Wales, U.K.
Sorting out in mixed aggregates of embryonic tissue cells. Gallus domesticus (Aves) 
Role of surface carbohydrates in cellular adhesiveness, Same species as a 
FABER, J.; Ph.D. - Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalan 8, 3584 CT UTRECHT, Netherlands

FACCIO (DOLFINI), Ms. S.; D.Sc. - Ist. di Genet., Univ. di Milano, via Celoria 10, 20133 MILANO, Italy
Development and cytology of cultured cells. Drosophila melanogaster (Diptera) 
Cytological aspects of heterochromatin. Same species as a 
FACHBACH, G.; Dr.phil. - Zool. Inst. der Univ., Universitätspitzen 2, A 8010 GRAZ, Austria

Effect of X-irradiation on gametogenesis. (Chondrostei; Teleostei) 
FALUGI, F.; Dr.Biol. - Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy
Effects of cholinesterase inhibitors on development (Ascidiacea; Echinoidea) 
Acetycholine receptors in eggs and early embryos. Same species as a 
Naphthylamidase activities in eggs and embryos. (Cirripedia & Branchiopoda: Crustacea)
FANGHANEL, J.; Dr.sc.med. - Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr.9, 25 ROSTOCK 1, D.D.R. (Germany)

FARGEIX, N.; D.Sc. - Lab. de Biol. Anim., Univ. de Clermont, B.P.45, 63170 AUBIERE, France
Lignée germinale et morphogénèse gonadique (Aves)
FARINA, Ms. E.; Dr. - Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
FARINELLA (FERRUZZA), Ms. N.; D.Sc., Prof. - Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy
Hybridization. (Asciidea) 
Embryonic and post-larval development. Molgula impura (Asciidea) 
Action of hydrostatic pressure on embryonic development. Ascidia malaca, Clavellina lepadiiformis (Asciidea) 
Embryonic and larval development. Embryonic action. 
DNA synthesis in egg development. Ciona intestinalis, Ascidia malaca, Clavellina lepadiiformis (Asciidea)
Embryonic and larval development. Molgula impura (Asciidea) 
Action of hydrostatic pressure on embryonic development. Ascidia malaca, Ciona intestinalis, Asciidea aspersa (Asciidea) 
Hybrids from fused gigantic eggs. Same species as e 
FARNESI, Ms. R. M.; Dr. - Ist. di Anat. Comp., Univ. di Perugia, via A. Pascoli, 06100 PERUGIA, Italy
Spermiogenesis. Dugesia lugubris (Turbellaria) 
Histochemistry and ultrastructure of the cocoon. Branchiobdella pentodonta (Oligochaeta) 
Histochemistry and ultrastructure of the frontal structure present in larva and adult. Trissolcus spp. (Hymenoptera)

FAUCOUNAU, Ms. N.; Lic.Sc. - Lab. d’Histol. et d’Embryol., Univ. de Bordeaux II, 146 rue Leo-Saignat, 33076 BORDEAUX Cedex, France
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 
FEZAKES-TODEA, Ms. I.; M.D. - Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMISOARA, Rumania
Experimental teratology. Gallus domesticus (Aves)
Embryonic and embryonic axial organs (somitogenesis). Same species as a 
FEDECKA (BRUNER), Ms. B.; D.Sc. - Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
Enzyme synthesis and activation during development. Gallus gallus (Aves) 
FEIERTAG (KOPPEN), Ms. C. C. M.; Drs. - Vakgroep Genetica, State Univ. of Groningen, Biol. Ctr., Vleugel A, HAREN 8045, Netherlands
Oogenesis and fertilisation; parthenogenesis. Tetranychus urticae (Acari, Arachnida)
FEJERSKOV, O.; Dr.lit.odont., Prof. – Dept. of Dent. Pathol. and Operat. Dent., Royal Dent. Coll., Vennelyst Blvd., 8000 ARHUS C, Denmark

a Migrating epithelial cells in palatal wounds: cytology; scanning electron microscopy; morphometry; treatment with anti-neutrophilic serum. Cavia porcellus (Rodentia) (with L. ANDERSEN)
b Electron microscopy of tooth development in vitro. Mus musculus (Rodentia) (with J. THESLIEFF and K. JOSEPHSEN)

FELBER, M. S.; cand.phil. – Div. of Cell and Devi. Biol., Zool. Inst., Univ. of Bern, Sahliistr.8, 3012 BERN, Switzerland

a Estrogen-dependent synthesis of vitellogenin in vitro. Xenopus laevis (Anura)

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

a Pre- and postnatal functional maturation of the hepatocyte. Rattus norvegicus (Rodentia) (with R. L. JACQUOT and C. LEGRELE)


a Develop enzyme systems before and after birth. Homo sapiens (Primates)

FERNANDEZ, M. M.; Dr.Biol. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France

a The recessive semi-lethal factor ac: temperature-sensitivity of homozygous mutants; maternal effect in the progeny of mutant females. Pleurodeles waltli (Urodela) (with J. C. BEETSCHE)

FERNHOLM, B.; Dr., Prof. – Roskilde Univ. Ctr., Nat. Box 260, 4000 ROSKILDE, Denmark

a Embryology of endocrine organs. Eptatretus burgeri, E. stouti, Myxine glutinosa (Cyclostoma)


FERRIER, V.; Licèes Sci. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Route de Narbonne, 31077 TOULOUSE Cedex, France

a Experimental gynogenesis. Pleurodeles waltli (Urodela) (with A. JAYLET)
b Chemical mutagenesis. Same species as a (with J. C. BEETSCHE and A. JAYLET)

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

– Biophys. Lab., Canc. Inst. Regina Elena, Viale Regina Elena 291/295, 00161 ROMA (7), Italy


a Morphogenetic mutants in the wing disc. Drosophila spec. (Diptera)

b Developmental genetics of the nervous system. Same species as a


a Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DETTLAFF, E. V. CHULITZKAYA and A. S. STEPANOV)

FICKENTSCHER, K.; Dr.reer.nat.; Prof. – Pharmaceut. Inst., Univ. of Bonn, An der Immenburg 4, 5300 BONN-Endenich, B.R.D. (Germany)

Intercalation of thalidomide analogues into the DNA of Escherichia coli

b Placental passage of dibromo-maleimide. Mus musculus (Rodentia)

FIQ, Ms. A. A.; D.Sc.; Prof. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHÔDE-ST-GENÈSE, Belgium

a Observations autoradiographiques sur l’oogénèse et la morphogénèse. (Anura)
b DNA synthesis during early oogenesis. Xenopus laevis (Anura)
c Template activities of chromatin in meiotic cells. Same species as b

b Protein metabolism in early oogenesis. Xenopus laevis (Anura), Ambystoma mexicanum (Urodela)
c DNA, RNA, and protein metabolism in pachyten 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 pachyten chromatin at metamorphosis. 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 The formation of “en plaque” synaptic structures. Same species as a

FILONI, S.; Dr.Biol. – Ist. di Anat. Comp. “Battista Grassi”, Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy

FILOSAA PARIIS, Ms. S.; Dr. – Ist. di Istol. ed Embriol., Univ. di Napoli, Via Mezzocanne 8, 80134 NAPOLI, Italy


a Larval development (laboratory rearing). (Natantia, Decapoda, Crustacea)

FIORONI, P.; Dr.phil.; Prof. – Zool. Inst. der Univ., Lehrr. für spez. Zool., Hüfferstr. 1, 44 MÜNSTER, B.R.D. (Germany)

a Ultrastructure of early cell differentiation. Nassarius spec., Lymnaea spec. and others (Gastropoda)
b Comparative histology, ultrastructure, and biology of embryonic nutrition (yolk, albumen, food-eggs). Many genera (Gastropoda)
Ribosomal proteins during development. Antheraea pernyi (Lepidoptera)

FRANCE, V. M.; Pd.- Dep. of Physiol., King's Coll., LONDON WC2R 2LS, England

a Causative factors for gallstone formation in fetus; steroid action on fluid transport in gallbladders in vitro; analysis of bile for pancreatic enzymes. Cavia porcellus (Rodentia), Ovis aries (Artiodactyla)

b Effects of prolactin, theophylline, ethacrynic acid and vasopressin on amnion conductance, chloride fluxes and on fluid movement across amnion in vitro. Ovis aries, Sus scrofa domesticus (Artiodactyla)

FRANCHI, L. L.; Ph.D. — Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

a Fine structure of normal and irradiated male and female germ cells. (Rodentia; Primates)

b Structure and function of chromosomes in oocytes in relation to radiosensitivity. (Rodentia; Carnivora; Primates and others)

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

a Cytogenèse de l'adénohypophyse. Gallus domesticus (Aves)


a Effect of increasing scrotal temperature on testicular morphology in neonate. Sus scrofa domesticus (Artiodactyla)

b Effect of decreasing the temperature of the abdominal testis in cryptorchids on initiation of spermatogenesis. Same species as a

FRANQUINET, R.; Dr.3e Cycle — Lab. de Biol. Anim., Univ. Paris XII (Val de Marne), av. du Gén. de Gaulle, CRÉTEIL, France

a Membrane mediators (cyclic AMP, cyclic GMP) during regeneration; role of hormones and neurotransmitters. Planariidae (Turbellaria)

FRANZÉN, A. S.; Ph.D. — Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

a Comparative studies of spermatoozoon and spermatogenesis. (Invertebrata)

b Larval development. (Brachiopoda; Entoprocta)

FRASCHINI, Ms. A.; Ph.D., Prof. — Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). Rattus rattus (Rodentia)

b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)


a In vitro fertilization: effects of gamete age, culture conditions, etc., on developmental potential and on chromosomal complements. Mus musculus (Rodentia)

FRETTER, Ms. V.; Ph.D., D.Sc. — Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England

a Veliger larvae: structure, feeding, food requirements, digestion, structural changes at metamorphic, coastal spp. (Prosobranchia, Gastropoda)

FRÜDEND, Ms. E.; Dr.agr. — Anat. Inst., Wilhelm-Pieck Univ., Gertrudensstr. 9, 25 ROSTOCK 1, D.D.R. (Germany)


a Electron microscopy of giant chromosomes. Chironomus spec. (Diptera)

FREYSSINET, G.; Dr.spec. — Dépt. de Biol. Génér. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France

a Analysis and synthesis of ribosomal proteins. Euglena gracilis (Euglenophyceae)

b Nutritional requirements for chloroplast formation. Same species as a

FRIED (MONTAUFER), Ms. M. C.; D.E.S. — Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France

FULCRAND, J.; Dr.Sci. — Lab. de Neurophysiol., Univ. des Sci. et Techn. du Languedoc, Place E. Bataillon, 34060 MONTPELLIER Cedex, France

a Ontogenèse et dégénérescence expérimentale des voies visuelles (radioautographie). Rattus norvegicus (Rodentia)

GABAJEVA, Ms. N. S.; Cand.biol. — Dept. of Embryol., Leningrad State Univ., Mendelevsky St. 5, LENINGRAD 199164, U.S.S.R.

a Follicular epithelium morphology during oogenesis. Hemichromis multiclor (Teleostei)

b Comparative study of structure and functions of follicular epithelium in oogenesis. Lampetra fluviatilis (Cyclostomata), Xiphophorus spec. (Teleostei), Agama caucasia (Lacertilia), Testudo horsfieldi (Chelonia), Gallus domesticus (Aves)

GABRIEL-ROBEZ (KREMER), Ms. O.; Dr.méd. — Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

a Teratogenic effects of venoms and oestrogens. (Aves; Mammalia)

b Urogenital system abnormalities. Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

c Fractionation of Vipera aspis venom by gradient chromatography; teratogenic activity of the separated proteins compared to that of the whole venom
d 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
a Origin of polarity in thyroid cells cultured in vitro (microtubules, microfilaments; cytochemistry).

GAILLARD, J. A.; M.D. – Lab. d'Histo-Pathol., Inst. Pasteur, 25 rue du Docteur Roux, 75015 PARIS, France

b Embryonic tumors; germ cell tumors; dysembryomas of ovary and testis; blastemal tumors. Homo sapiens (Primates)

c Comparative developmental morphology of embryos and first stages of normal ova. Same species as a

d Extra-embryonic structures in embryos. Same species as a

e Experimental teratomas. Mus musculus (Rodentia)

f Odontogenesis as a model of organogenesis in an ovarian teratoma (serial sections). Same species as a

GARCIA-PORRERO, a
GARCIA-BELLIDO, a
GALLO, a
GALLIEN, a
GAIXO, a
GAINO, a
GAILLARD, a
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GARDNER, R.; D.Phil. – Zool. Dept., Oxford Univ., South Parks Rd, OXFORD OX1 3PS, England
a Determination during early development. Mus musculus (Rodentia)
b Mechanism of X-chromosome inactivation. Same species as a

GAREL, J.-M.; Dr. – Lab. de Physiol. du Dével., Univ. P. et M. Curie, 9 quai Saint-Bernard, 75230 PARIS Cedex 05, France
a Parathyroid hormone and calcitonin: secretion, metabolism, and physiological role, especially in Ca, Mg, and P metabolism, before and after birth. Rattus spec. (Rodentia), Ovis aries, Bos taurus (Artiodactyla), Equus caballus (Perissodactyla)

GARGOUILLY, M.; D.Sc., Prof. – Lab. de Physiol. Anim., Univ. de Poitiers, Bât.P, 40 av. du Recteur Pineau, 86022 POITIERS, France
no work on developmental biology in progress

GARROD, D. R.; Ph.D. – Dept. of Biol., Univ., SOUTHAMPTON SO9 5NH, England
a Morphogenetic movement and cell adhesion. Dictyostelium discoideum (Acrasiales)
b Tissue-specific sorting-out of embryonic cells. Gallus domesticus (Aves)

GASC, J. M.; D.Sc. – Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
a Cortico-steroid binding protein (CBG) in the embryo. Gallus domesticus (Aves)
b Regression of mesonephros and differentiation of epididymis: an autoradiographic study of DNA synthesis. Same species as a
c Localization of steroid hormone receptors in gonads and genital ducts of the embryo. Same species as a

GASSER, F.; D.Sc. – Lab. de Biol. Gén., Univ. Paul-Sabatier, 118 Rte de Narbonne, 31077 TOULOUSE Cedex, France
a Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. Pleurodeles walti (Urodela) (with J. C. BEETSCHEN and A. JAYLET)

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

GATHMANN, H. A.; Dr.med. – Pathol. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 8-10, 8520 ERLangen, B.R.D. (Germany)
a Embryology and teratology of the liver, especially of the bile ducts. Homo sapiens (Primates)
b Embryology and teratology of the skeleton, especially of the chondro- and neurocranium. Same species as a

GAUDECKER, Ms. B. von; Dr.reer.nat. – Anat. Inst. der Univ., Olshausenstr.40-60, 23 KIEL, B.R.D. (Germany)
a Ultrastructure and histochemistry of prepupal and pupal salivary glands. Drosophila melanogaster (Diptera)
b Thymus ultrastructure in the embryo. Homo sapiens (Primates)

GAZARYAN, K. G.; Dr.biol., Prof. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
a Role of chromosomal proteins in regulation of transcription in erythroid cells. Columba livia (Aves)

a Amniotic fluid analysis. Homo sapiens (Primates)
b Analysis of urinary estrogens during pregnancy. Same species as a

GEHRING, W. J.; Ph.D., Prof. – Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
a Cell determination and differentiation in embryos and imaginal discs. Drosophila spec. (Diptera)

GEILENKIRCHEN, W. L. M.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitionior III, Univ. centrum “De Uithof”, UTRECHT, Netherlands
a Metabolism and respiration of egg and embryo. Lymnaea stagnalis (Gastropoda)
b Influence of various kations on development. Same species as a
c Mechanisms of cytodifferentiation in cleaving eggs. Same species as a
d Germinol localization in eggs. Dentalium spec. (Scaphopoda), Patella spec. (Gastropoda)

GENDEREN, H. H. van; Drs. – Bot. Lab., State Univ. of Utrecht, Lange Nieuwstr. 106, UTRECHT, Netherlands
no work on developmental biology in progress

GENEIX, A.; Ph.D., Sc.D. – Lab. d’Histol-Embryol-Cytogénét., Fac. de Méd., B.P. 38, 63001 CLERMONT-FERRAND Cedex, France
a Chromosome ultrastructure. Homo sapiens (Primates)

GÉNIS-GÀLVEZ, J. M.; Med.Dr., Ph.D., Prof. – Lab. of Exp. Embryol., Dept. of Anat., Fac. of Med. Univ. de Sevilla, SEVILLA, Spain

GENNSER, G.; M.D., Assoc. Prof. – Dept. of Obstet. & Gynecol., Kvinnoklinikken, 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

GEORGES, Ms. D.; Dr.spec. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P. 53, 40
Electron Pathology

Yolk Development

Isoprenaline

Descriptive

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DNA Effect

Physico-chemical

Comparison

Control

Role

Cell

Histochemistry

fitude

Development

Immunochemical

Ultrastructure

Somatic (Aves)

GEUSKENS, a b

GERARD, a

GIANNETTI, b

GERACI, a

GILBERT, a b

GIESE, a

GINSBURG, c

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V. (blockade
treatment (Urodela)
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FELICE, C.P.

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of cell differentiation. Same species as

c Generation and recognition of periodic cyclic-AMP signals. Same species as a

GERZELI, G.; Prof. – Ist. of Comp. Anat., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Isoprenaline induced modifications of liver cells (plodisty, structure, metabolism) during postnatal development. Rattus spec. (Rodentia)

effect of lathryogenic substances on larvae. Xenopus laevis (Anura), Salamandra salamandra (Urodela)

GEUSKENS, M; D.Sc.Zool. – Dept. of Molec. Biol., Free Univ. of Brussels, 66 rue des Chevaux, 1640 RHODE-ST-GENESE, Belgium

a The influence of cytoplasmic constituents on genetic transcription during embryonic development (electron microscopy, autoradiography). (Amphibia)

b Cell coat and microfilament organisation during cleavage (concanavalin A- peroxidase staining; treatment with wheat germ and soybean agglutinins; electron microscopy). Xenopus laevis (Anura), Pleurodeles waltli (Urodela)

GEZELIUS, N. G. B.; Ph.D. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

a Role of sulphate in transport of RNA during development. (Echinodermata)

GHIARDELLI, E.; Prof. – Inst. of Zool. and Comp. Anat., Univ. of Trieste, via A. Valerio 32, 34127 TRIESTE, Italy

GIACOBINI, C.; 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

GIANGUZZA, M.; Dr. – Ist. di Biol. Gen., Univ. di Palermo, Via Divisi 83, 90133 PALERMO, Italy

a Histochemistry and ultrastructure of oogenesis and embryology. (Ascidiae) (with V. MANCUSO and G. DOLCEMASCO)


a Somatic cell fusion, especially in metabolic disorders. Homo sapiens (Primates)

b DNA repair systems. Same species as a

GIANNELLI, 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)


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 OSTERMUNDIGENBE, 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)


a Yolk transport mechanism in ovarian follicle. Gallus domesticus (Aves)

GINSBURG, Ms. A. S.; Dr.biol. – Inst. of Development. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.

a Sperm ultrastructure and acrosome reaction. Acipenser stellatus, A. gardenstdrdi (Chondrostei)

b Development of the capacity for the cortical reaction during egg maturation. Same species as a, and Misgurnus fossilis (Teleostei)

GINSBURGER-VOGEL, T.; Agr. – Lab. de Génét. Evolut. et de Biomét., C.N.R.S., 91190 GIF-sur-YVETTE, France

GINTER, E. K.; Dr. – Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye C. nassec 6a, 115478 MOSCOW, U.S.S.R.
Effect

Yolk fusion genetic study. Course ultrastructure attempt at giant development differentiation behavior vitellogenesis.

Erythrocyte genetic incompatibilities immunochemical modalities.

Giolitti, G.; Prof. Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
a Effect of chloro-organic solvents on embryos. Xenopus laevis (Anura)

GiorGi, F.; Dr. Biol. Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy
a Yolk formation and the Golgi apparatus in oogenesis. Drosophila melanogaster (Diptera)
b Vitellogenesis. Same species as a and various spp. (Urodela)
c Immunohemochromogenic study 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 yolk from laid eggs and their biochemical characterization and comparison with yolk platelets formed during vitellogenesis. Same species as a

GipouloUX, J. D.; Dr. Lab. de Biol. Anim. A, Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE Cedex, France
a Étude expérimentale de la morphogénèse 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’utérète primaire. Rana spec., Bufo bufo, Discoglossus spec., Xenopus spec. (Anura)

Girard (DECHAMBRE), M.S.; 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 Modalité 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)

a Effect of thyroxine on cell proliferation in embryo larva. Pleurodeles waltl (Urodela)

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 (Echinoidae)
b “Capping” of RNA. Same species as a
c Giant RNA in the cytoplasm of embryos. Same species as a

Glasc, P.; Ph.D. Dept. of Anat. and Embryol., State Univ. of Groningen, Oostersingel 69, GRÖNINGEN, Netherlands
a Fusion of the septum walls of the fissure longitudinalis cerebi in the telencephalon and the contribution of commissure hippocampi and corpus callosum to this process. Mus musculus (Rodentia)

Glätzzer, K. H.; Dr. rer. nat. Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, Gebäude 26.02, Ebene 2, 4000 DÜSSELDORF B.R.D. (Germany)
a Gene physiologic, Y chromosome. Drosophila spp. (Diptera)
b Genetic regulation of differentiation; male germ line cells. Same species as a

Glenister, T. W.; D.Sc., Ph.D., Prof. Dept. of Anat., Charing Cross Hosp. Med. School, Lab. Block, Fulham Palace Road, LONDON W6 8RF, England
a Reaction of genic tract tissues to hormones in vitro. (Rodentia; Lagomorpha; Primates)
b Blastocyst implantation in vitro. Same species as a
c Behaviour of trophoblasts in vitro. Same species as a
d Development of embryos in vitro. Same species as a
e Ultrastructure of embryomaternial relationships during implantation. Same species as a

a Ultrastructure of imaginal disc cells. Drosophila melanogaster (Diptera)

Godelt (NONNEMACHER), M.S. J. Dept. 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)

a Differentiation of germ cells in early oogenesis (quantitative and stereological analysis). Tetrodontophora bielansiana (Collembola)

a Development of dermal melanocytes, their structure, biochemistry, physiological regulatory mechanisms, and behavior. Rana temporaria, Xenopus laevis (Anura)

Golinska, M.K.; Dr.nat.sc. Dept. of Cell Biol., M. Nencki Inst. of Exper. Biol., Polish Acad. of Sci., Pasteur St. 3, 02-093 WARSZAWA, Poland
a Course of shape regulation (“French-Flag” type): microsurgery, morphometry, electron and light microscopy, and the effect of high temperature and some inhibitors of protein synthesis (puromycin, cycloheximide) thereon. Dileptus anser, D. cygnus (Ciliata)

Gomot, L.; D.Sc., Prof. Lab. de Zool. et Embryol., Univ. de Besançon, place Maréchal Leclerc, 25030 BESANÇON Cedex, France
a Développement embryonnaire de la glande urophygienne. Anas platyrhynchos (Aves) (avec J. BRIDIE)
b Différenciation sexuelle des hybrides femelles. (Aves) (avec A. DERAY)
c Organogénese de la glande mammaire (culture in vitro). Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha) (avec A. BIÉTRY et C. COLARD)
d Fonctionnement de l'appareil génital (culture d'organes), Helix aspersa (Gastropoda)

le Développement in vitro et in vivo du coeur. Rana temporaria, Xenopus laevis (Anura) (avec M. BRIDE-VUILLET)

f Histophysiologie des testicules et de l'hypophyse des hybrides intergénératifs stériles comparée à celle des canards fertiles. Cairina moschata, Anas platyrhynchos (Aves) (avec C. R. MARCHAND)

g Déterminisme de la sexualité. Viviparus viviparbus (Gastropoda) (avec B. GRIFFOND)


a Changes of physiological state of follicles during oogenesis and mechanism of hormonal induction of oocyte maturation. Aciensper stellatus, A, grüdenstädti (Chondrostre), Rana temporaria, Bufo bufo (Anura)


a Developmental regulation of genetic expression: mechanism of protein synthesis and its control in the liver. Rattus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

b Genetic transcription and translation of the transcribed messages as affected by hormones. Rattus spec. (Rodentia)


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

b Viviparity. Zoarcus viviparbus (Teleostei)

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

a Cytoplasmic DNA synthesis in fibroblasts cultivated in vitro. Gallus domesticus (Aves)

GOTZOS, V.; Dr.Vet. - Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 1700 Fribourg, Switzerland

a 1. Culture of embryonic fibroblasts; 2. culture of macrophages; 3. cell proliferation in vitro; 4. cytoplasmic DNA and its role in the cell cycle. Gallus domesticus (Aves), Homo sapiens (Primates)

GOUNON, P.; Dr.3è Cycle - Lab. d'Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günsburg, 94200 IVRY-sur-SEINE, France

a L'expression des gènes liés à la "léthality" et à l'"ulcération" (microchirurgie, cytologie ultrastructurale, analyse biochimique des protéines microtubulaires). Pleurodeles walti (Urodèle)

GOVAERE, Ms. M. C.; Dr.3e Cycle - Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France

GRAHAM, C. F.; D.Phil. - Dept. of Zool., Univ. of Oxford, South Parks Rd., OXFORD OX1 3PS, England

a Experimental parthenogenesis, Mus musculus (Rodentia)

b Development of teratomas in vitro. Mus musculus (Rodentia), Homo sapiens (Primates)

c Differentiation of teratoma cells in vitro. Same species as b

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

a Biochemistry of germ cell determination and body pattern formation in early embryos.

b Drosophila melanogaster (Diptera)

c Antigens and protein analysis of embryological mutants. Same species as a

GRIBNAU, Ms. A. A. M.; Dr. - Dept. of Anat. and Embryol., Cathol. Univ., Geert Grootplein N.21, NIJMEGEN, Netherlands.

a Development of the prosencephalon. Macaca mulatta (Primates)

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

a Déterminisme de la sexualité. Viviparus viviparus (Gastropoda) (avec L. GOMOT)

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

a Maturation of the complexe hypothalamo-hypophysaire. Gallus domesticus (Aves), Rattus norvegicus (Rodentia)

b Différenciation du tube séminifère. Rattus norvegicus (Rodentia)

GRUENEMIJK, M.; M.Dr. - Dept. of Anat., Charles Univ., Un němcnice 3, 12800 PRAHA 2, Czechoslovakia

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

GRIPOPO, 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)

GROZDZNISKI, Z.; D.Sc., Prof. (Emer.) - Dept. of Comp. Anat., Jagellonian Univ., ul. Krupnicza 50, 30-060 KRAKOW, Poland

a Ultrastructure and some physico-chemical properties of yolk platelets. Sphenodon punctatus (Rhynchocephalia, Reptilia)

GROENENDIJK (HUIJBERS), Ms. M. M.; M.D., D.Sc. - Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands

a Müllerian duct inhibiting capability of young testes, after administration of cyproterone-acetate or estradiolbenzoate, as studied by implantation in 4-day old female embryos. Gallus domesticus (Aves)

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

HARRIS, J. W. S.; Ph.D., Prof. – Dept. of Anat., Royal Free Hosp. Sch. of Med., 8 Hunter St., LONDON WC1N 1BP, England
a Morphogenesis of nose and palate. Mus musculus, Rattus spec., Mesocricetus auratus (Rodentia), Homo sapiens (Primates)
b Effect of trophoblast on uteroplacental blood vessels. Mesocricetus auratus (Rodentia), Homo sapiens (Primates)


HARRISON, 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)

HARRISON, F. – Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2020 ANTWERPEN, Belgium
a Biogenic amines in the hypothalamo-hypophyseal system, especially ontogenesis. (Aves; Mammalia)
b Role of neural crest cells in embryogenesis, possible neural crest origin of APUD-cells. (Aves; Mammalia)

HARRY, M. E. – Lab. de Biol. Cell., Fac. de Pharm., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France
a Cellular differentiation in callus cultures; embryoid differentiation. (Angiospermae)

HARTE, M. C.; Dr., Prof. – Inst. fär Entw. physiol., Univ. Köln, Gyrhofstr. 17, 5 KÖLN 41, B.R.D. (Germany)
a Interactions between genes and environment in controlling morphogenesis of leaves. Antirrhinum majus (Scrophulariaceae)
b Growth of callus and differentiation in tissue cultures of different mutants. Oenothera hookeri (Onagraceae), Antirrhinum majus (Scrophulariaceae)
c Models for mitosis in cell populations. (with A. LINDENMAYER, Univ. of Utrecht)

HARTMANN, R.; Dr.rer.nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
a Light and electron microscopy of spermatheca development in connection with endocrine ablations. Gomphocerus rufus, Schistocerca gregaria (Acridinae, Orthoptera)

HARTWIG, H.; Dr.phil., Prof. – Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
a Wirkungsmechanismus von Schilddrüsenhormonen. Salamandra spec., Triturus spec., Ambystoma spec. (Urodela)
b Epithelcysten. Same species as a
c Geweihbildung. Capreolus capreolus (Artiodactyla)


HATIER (AUTELIN), M. S.; D.Sc. – Lab. de Biol. Méd., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France
a Différenciation des tubes séminifères. Rattus norvegicus (Rodentia)

HAUENSCHILD, C.; Dr.rer.nat., Prof. – Zool. Inst. der Tech. Univ., Pockelstr. 10a, 3300 BRAUNSCHWEIG, B.R.D. (Germany)
a Reproduction, sex differentiation, endocrinology, and periodicity. Platynereis spec., Syllis spec. and other spp. (Polychaeta)
b Endocrinology of stolonisation and sex differentiation. Syllis prolifera (Polychaeta)

HAUSER, R. F.; Ph.D., Prof. – Div. of Cell and Developm. Biol., Zool. Inst., Univ. of Bern, Sahlist. 8, 3012 BERN, Switzerland
a The role of the subcommissural organ in normal development and regeneration of axial structures. Xenopus laevis (Anura), various spp. (Vertebrata)

HAY, M. S. F.; Dr. – A.R.C. Unit of Reprod. Physiol. and Biochem., Anim. Res. Stat., 307 Huntington Rd., CAMBRIDGE CB3 0JQ, England

HEATH, J. P.; M.Sc. – Strangeways Res. Lab., Worts Causeway, CAMBRIDGE CB1 4RN, England
a Cell- relations in tissue culture. Gallus gallus (Aves), Mus musculus (Rodentia) with M. ABERCROMBIE and G. A. DUNN

a Cellular interaction in tissue culture

HEDLUND, K. O.; Fil.kand. – Inst. of Zool.; Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Ultrastructure of differentiating embryonic ganglia. Gallus domesticus (Aves)

HEESEN, D. te; Dr. – Emschergenossenschaft, Kronprinzenstr. 24, 41 ESSEN, B.R.D. (Germany)
a Development of freshwater species as a test for pollution. (Teleostei)
b Female specificity of the yolk proteins and oestrogen induced vitellogenin synthesis in males. Brachydanio rerio (Teleostei)
c Immunology of exo- and endogenous yolk proteins. Same species as b and other spp. (Teleostei)


a Comparative embryology of coelom. Lanicoe conchilega (Polychaeta)

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Differenciation
Sviluppo
Biometrie
Changes
Ultrastructure
Biochemical Changes
Gene Development
Lignee
Embryonic Relative RNA
Fluor Maturation

INEICHEN, INMERS,
HUBERT-VAN
IMAIZUMI,
HURST,
ILIES,
HOUSSAINT,
ZURICH,

Paracentrotus domestica
electron 95124 species Chevaux,
St.
(Urodela)

PARIS
England

a Ultrastructure of the chorion layer and decidua. Homo sapiens (Primates)
b Ultrastructure of haematopoiesis in the liver and bone marrow. Same species as a

HUBER, W.; D.Sc., Prof. - Naturhist. Museum, und Zool. Inst. der Univ., Abt. für Morphol. und Biol. der Wirbeltiere, Bernastr. 15, 3005 BERN, Switzerland
a Biometrie des Schädels, Canis familiaris (Carnivora), Rupicapra rupicapra (Artiodactyla)
b Postembryonales Wachstum, Canis familiaris (Carnivora)
c Geschlechtszyklus, Rupicapra rupicapra (Artiodactyla)
d Fortpflanzung und Geschlechtszyklus, Scissors vulgaris (Rodentia)
e. Fortpflanzung und Reproduktionsleistung. Lepus europaeus (Lagomorpha), Canis familiaris (Carnivora)

HUBERT, Ms. C.; - Lab. de Chim. Horm., Maternité de Port Royal, 123 Bd. de Port Royal, 75014 PARIS, France

HUBERT, J.; D.Sc. - Lab. de Biol. Anim., Univ. de Clermont, B.P. 45, 63170 AUBIÈRE, France
a Légume Seminal chez l'embryon, le jeune et l'adulte; étude descriptive et expérimentale, ultrastructure. Lacerta vivipara, L. muralis, L. viridis, Anguis fragilis (Lacertilia)

HUBERT-VAN STEVENS, Ms. E. M. C. - Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHÔDE-ST-GENÈSE, Belgium
a Maturation of oocytes. Xenopus laevis (Anura)

HUCHON, Ms. D. E.; D.Sc. - Lab. d'Embryol., Univ. Paris VI, 4 place Jussieu, 75230 PARIS Cedex 05, France


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 (Anosttra, Crustacea), (Echinoidea)

HURLLE 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 (stages 9–34 H.H.; optic and electron microscopy), Gallus domesticus (Aves)
b Development and role of cardiac jelly (microsurgery, optic and electron microscopy). Same species as a

HURST, P. R.; Ph.D. - Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
a Development of embryos in normal and IUD (intra-uterine device) treated animals. Mus musculus (Rodentia), Homo sapiens and other spp. (Primates)

IANNELLO, Ms. A.; Dr rer. nat. - Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy
a Sviluppo delle ossa interparietali e preinterparietali. Homo sapiens (Primates)

a Relative duration of embryonic periods in connection with the morphogenetic function of nuclei and yolk. Miguwarn fossils, Esox lucius and other spp. (Teleosteii), 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)

a Changes in synapses and glia after partial denervation of the central nervous system, and the factors which influence the time course of its regeneration. Rattus spec. (Rodentia), Felis domestica (Carnivora)
b Changes following repetitive stimulation of the central nervous system. Same species as a

IMAIZUMI, Ms. M. T.; M.D. - Inst. de Rech. en Biol. Mol. du C.N.R.S., Univ. Paris VII, 2 place Jussieu (Tour 43), 75221 PARIS Cedex 05, France
a Gene transcription in oocytes. Gallus domesticus, Coturnix c. japonica (Aves)

IMMERS, J.; Fil.Dr. - Wenner-Gren Inst., Norrtullsgatan 16, 113 45 STOCKHOLM, Sweden
a Biochemical factors in embryonic and larval development, particularly the role of mucopoly-saccharides. Paracentrotus lividus (Echinoidea)
b Changes in interaction between proteins and nucleic acids in the course of early development. Paracentrotus lividus, Psammechinus miliaris (Echinoidea)
c Interaction of animal-vegetal morphogenes with respect to double gradient concept. (Echinoidea)

a RNA metabolism. (Chironomidae, Diptera)
Dormancy.

Origin

Ultrastructural Control

Histogenese

Hemopoietic Scanning Ultrastructure Orientational Interaction Comparative Asexual Pleiotropy Properties Larval Development Pre-


a Larval development. (Brachyura, Decapoda, Crustacea)


a Genetics of heat-shock proteins. Drosophila melanogaster (Diptera)

IVANOFF-GERARD, Ms. A. – Lab. d’Embryol., Univ. de Nancy I, B.P. 1080, 54019 NANCY Cedex, France

a Histogenèse des systèmes aminérgiques diéchéphaliques à partir du 6e jour de la vie embryonnaire jusqu’à la quatrième semaine postnatale. Gallus domesticus (Aves)

IVANOY, E. A.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.

a Experiments on the segmentation of the axial mesoderm. Rana temporaria (Anura), Gallus domesticus (Aves)

IVANOY, J. A.; Dr. – Dept. of Embryol., Univ. of Moscow, Lenin Hills, Moscow 117234, U.S.S.R.

a Determination of imaginal disc cells in normal and mutant strains. Drosophila melanogaster (Diptera)

b Interaction of homoecotic and non-homoecotic genes during development. Same species as a

c Temperature sensitivity of homoecotic and non-homoecotic mutants. Same species as a
d Pleiotropy of homoecotic genes. Same species as a

IVANOVA (KASAS), Ms. O. M.; Dr.biol., Prof. – Dept. of Embryol., Leningrad State Univ., Mendeleevsky St. 5, LENINGRAD 199164, U.S.S.R.

a Comparative embryology. Synoicum pulmonaria (Ascidiae)

b Asexual reproduction. Same species as a

IZMAILOW, Ms. R.; Dr. – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka 52, 31–044 KRAKOW, Poland

a Control of apomixis (cytology, embryology). Alchemilla spec. (Rosaceae), Ranunculus auricomus (Ranunculaceae)


a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, D. E. S. TRUMAN, I. THOMSON (Edinburgh), and R. WILLIAMSON (London))

JACOB, H. J.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univers., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)

a Differentiation of somites. Gallus domesticus, Coturnix c. japonica (Aves)
b Ultrastructure of connective tissue differentiation. Gallus domesticus (Aves)
c Scanning and transmission electron microscopy of prelaying stages. Same species as a

d Origin and development of musculature. Same species as a

de Development of the embryonic kidney. Same species as a, and Homo sapiens (Primates)

f Migration of embryonic cells. Same species as b


a Ultrastructural changes and patterns of DNA, RNA, and protein synthesis in differentiating cells as studied by E.M. autoradiography. Xenopus laevis (Anura), Homo sapiens (Primates)

b Characterization of DNA by in situ hybridization of labelled RNA with ultrathin sections of cells and tissues, Xenopus laevis (Anura), mouse L cells, HeLa cells (Mammalia)

JACOB (LOES), Ms. M.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univers., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM, B.R.D. (Germany)

a Differentiation of somites. Gallus domesticus, Coturnix c. japonica (Aves)
b Ultrastructure of connective tissue differentiation. Gallus domesticus (Aves)
c Scanning and transmission electron microscopy of prelaying stages. Same species as a

d Origin and development of musculature. Same species as a

de 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 Orientalational mechanisms of the outgrowing nerve fibre studied in vivo and in vitro

b Factors stimulating nerve fibre outgrowth

JACQUOT, R. L.; D.Sc., Prof. – Lab. de Physiol. Anim., Univ. de Reims, B.P. 347, 51062 REIMS Cedex, France

a Pre- and postnatal functional maturation of the hepatocyte. Rattus norvegicus (Rodentia) (with J. M. FELIX and C. LEGRELE)

b Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. Same species as a (with M. D. NAGEL and C. BILLAT)

c Endocrine functions of the foetus. Same species as a

JACUNSKI, L.; Dr. – Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87–100 TORUN, Poland

a Teratogenesis and regeneration. Tegernaria atrica (Araneae, Arachnida)

CLERMONT-FERRAND Cedex, France

a Chromosome ultrastructure. Homo sapiens (Primates)

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

a Larval development. (Pogonophora)
b Comparative studies of larval development. (Invertebrata)

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

JAMM'S, D. A.; D.Phil. – Dept. of Pathol., Wellcome Res. Labs., Langley Court, BECKENHAM, Kent BR3 3BS, England

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


a Participation of nuclear and cytoplasmic substances in control of state of DNA in chromatin.

Gallus domesticus (Aves), Rattus norvegicus (Rodentia)

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

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

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

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

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

a Synthesis of soluble proteins in the whole embryo and in the cultured eye cup (disc electrophoresis, isoelectric focusing, autoradiography). Gallus domesticus (Aves) (with H. van der STARE)
b Biosynthesis and localization of alpha-fetoprotein in early development (immunofluorescence). Same species as a

c Legs proteins in early development. Same species as a

JANTOŠOVICÍV, 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, B.R.D. (Germany)

a Synthesis of new RNA populations needed for encystment. Acanthamoeba castellanii (Rhizopoda)
b Informational value of new transcription products during development. Same species as a
c Translation products in cell free synthesizing systems of stage specific poly-A RNA. Same species as a
d Phosphorylation of histones during development. Same species as a
e Characterization of ribonuclease(s); their activity(ies) during development. Same species as a
f Length of transcribed DNA during development. Same species as a


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

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

a Effects of X-rays on the progeny of irradiated animals; chromosomal anomalies; chromosomal markers in homozygous strains. (Urodela)
b Experimental gynogenesis. (Urodela) (with V. FERRIER)
c Chemical mutagenesis. (Urodela) (with J. C. BEETSCHEN and V. FERRIER)
d Genetical aspects of protein and enzyme differentiation in embryonic and larval stages. (Urodela) (with F. GASSER and J. C. BEETSCHEN)

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

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


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

JELINEK, R.; MUDR., CSc. – Inst. of Exp. Med., Dept. of Teratol., Czech. Acad. of Sci., Legerova 61, 120 00 PRAHA 2, Czechoslovakia

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

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

a Immunology of reproduction. Mus musculus (Rodentia), Homo sapiens (Primates)
A. Biological of the trophoblast. Same species as a
B. Early embryonic development. Mus musculus (Rodentia)
C. Ultrastructural changes in metamorphosing hearts. Calliphora erythrocephala (Diptera)
D. DNA amount and DNA synthesis in the individual cells of the metamorphosing heart. Same species a
E. Peroxidase secreting epidermal cells in the pharate adult. Same species as a

JERKA-DZIALEWSKA, M.; Dr. nat. sci. - Dept. of Cell Biol., M. Nencki Inst. of Exper. Biol., Polish Acad. of Sci., Pasteur St. 3, 02-093 WARSZAWA, Poland
a Surface organelle pattern regulation. Urostylidae (Ciliata)
b Genetically determined mirror-image inversion of the morphogenetic field. Tetrahymena thermophila (Ciliata)

JIRICKA, 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
C. 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)

JOHANNISSEN, R.; Dr. - Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätsstr. 1, 4000 DÜSSELDORF, B.R.D. (Germany)
a Synthetic capacity and structure of oocytes and nurse cells; deposition of yolk protein in the oocyte. Daphnia magna (Cladocera, Crustacea)
b Gene physiology, Y chromosome. Drosophila spp. (Diptera)
c Genetic regulation of differentiation; male germ line cells. Drosophila spp. (Diptera)

a Biosynthesis of contractile proteins during myogenesis in vivo and in vitro. Mus musculus, Rattus spec. (Rodentia), Homo sapiens (Primates)

JOHNNEN, Ms. A. G.; Dr.phil., Prof. - Zool. Inst. der Univ., Weyertal 119, 5 KÖLN 41, B.R.D. (Germany)
a Die Wirkungsspezifität abnormer Induktoren in der Entwicklung. Triturus vulgaris, Ambystoma mexicanum (Urodela)
b Die Bedeutung des Zeitfaktors beim Induktionsvorgang. Dieselben Arten a

JOHNSEN, M. H.; Ph.D. - Dept. of Anat., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
a Electron microscopy of abnormal tissues, and neuroendocrinology of animals carrying mutant genes. Mus musculus (Rodentia)
b Biochemistry of achondroplastic mutants. Same species as a

JOHNSON, W. 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

a Differentiation of primordial germ cells (qualitative and stereological analysis). Tetrodontophora bielanensis (Collombelia)

JONES (HOLT), Ms. E. C.; Ph.D. - Dept. of Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England
a The effect of maternal age on morphology and development of fertilized eggs. Mus musculus (Rodentia)

JONES, G. E.; Ph.D. - Dept. of Biol., Queen Elisabeth Coll., Univ. of London, LONDON W8 7AH, England
a Control of cellular movement and adhesion in haemocytes. Patella vulgata (Gastropoda)
b Adhesive specificity between cells of developing neural retina. Gallus gallus (Aves)

a Location and function of reiterated DNA sequences in nuclei and chromosomes studied by in situ hybridisation of complementary RNA. (Metazoa)
b Ultrastructure, biochemistry, and differentiation of myogenic cells, especially processes of transcription and translation

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Location of polyadenylated messenger RNAs by in situ hybridization of poly-U(H3) and mRNA complementary cDNAs. (Insecta), Rattus spec., Mus musculus (Rodentia), Homo sapiens and other spp. (Primates)

d Cloning of cDNA of myogenic cells in E.coli plasmid systems


JONIL, H. de; D.Sc. - Dept. of Anat. and Embryol., Univ. of Groningen, Oostersingel 69, GRONINGEN, Netherlands

a Functional morphology of the head with special reference to larval life and metamorphosis. (Anura)
b Ultrastructural aspects of metamorphosis of cranial muscles. (Anura)

JOSEPH, J.; D.Sc., M.D., Prof. - Dept. of Anat., Guy's Hosp. Med. School, LONDON SE1 9RT, England

a Regeneration: 1. epithelium; 2. whole thickness of adult ear; 3. effects of steroids and drugs. Oryctolagus cuniculus (Lagomorpha)

JOSEPHSEN, J.; D.Sc., M.D.(h.c.), Prof. - Lab. de Physiol. du Dével., Coll. de France, place Marcelin Berthelot, 75231 PARIS Cedex 05, France

a Development of gonads. (Mammalia)
b Freemârtins. Bos taurus (Artiodactyla)
c Glycogen deposition in fetal liver and its hormonal control
d Perinatal endocrinology

JOTEREAU, Ms. F. J. - Lab. d'Embryol., Univ. de Nantes, 38 Bd. Michelet, B.P. 1044, 44037 NANTES Cedex, France

a Thymus ontogeny; origin, renewal, fate and functional differentiation of thymic lymphocytes in interspecific chimeras. Gallus domesticus, Coturnix c. japonica (Aves)

JUBERTHÈ, C.; D.Sc. - Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France

a Développement. Phrymus spec. (Arachnida)
b Influence des facteurs abiotiques (température) sur le développement embryonnaire des espèces souterraines. Bathysciola spec., Sponemus spec., Anotrichus spec. (Coleoptera)

JUBERTHÈ-JUPEAU, Ms. L.; D.Sc. - Lab. Souterrain, Centre Natl. Rech. Scient., 09410 MOULIS, France

JUCHAULT, P.; Dr. - Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POTTIERS Cedex, France

a Contrôle neurohumoral de la différenciation sexuelle chez des espèces gonochoriques et hermaphrodites. (Isopoda, Crustacea)
b Interspecific and monogenic. Same species as a

JUNERA, Ms. H. - Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France

a Electrophoresis and immunochemistry of a female protein; vitellogenin. Orchestia gammarellus (Amphipoda, Crustacea) (with Y. CROISILLE (Nogent), H. CHARNIAUX-COTTON and J. J. MEUSY)

JUNG, E.; Dr.rec.nat. - Zool. Inst. I der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)


a Early developmental stages. Tetrodontophora bielanensis (Collembole)
b First cleavage, studied with UV micro-beam. Succinca putris (Gastropoda)

a Teratogenic activity of neurotropic drugs. Gallus domesticus (Aves), Mus musculus (Rodentia)
b Mechanism of preventing activity of papaverine hydrochloride on neural tube closure. Same species as a

c Partial neoteny. Xenopus laevis (Anura)

KACZANOWSKA (DOBRAŃSKA), Ms. J.; Dr.es Sci. - Lab. of Protozoool., Inst. of Zool., Warsaw Univ., Krakowskie Przedmieście 26/28, 00-927 WARSAW, Poland

KACZANOWSKI, A.; D.Sc. - Lab. of Protozoool., Inst. of Zool., Warsaw Univ., Krakowski Przedmieście 26/28, 00-927 WARSAW, Poland

KAFIANI, C. A. - Inst. of Molec. Biol., USSR Acad. of Sci., Vavilov St. 32, MOSCOW 117312, U.S.S.R.
a Transcription in isolated nuclei of the early embryo. Misgurnus fossilis (Teleostei) (with A. A. KOSTOMAROVA)

KAKEBEEKE, P. I. J.; Drs. - Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaisersr. 63, LEIDEN, Netherlands

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


KALETA, Ms. E. W.; Ph.D. - Dept. of Genet. and Evolut., Jagellonian Univ., Krupnicza 50, 30-060 KRAKOW, Poland

a Fertilization in vitro of eggs from inbred and crossbred animals. Mus musculus (Rodentia)
Developmental mechanism and ultrastructure: Photoreactivation (Zool.)

Effects of epithelial-mesenchymal nonenzymatic factors on reproductive anterior larval development (KLEPP, K. A.; et al.)


Källén, A. J. B.; M.D. - Prof. - Tornblad-Inst. for Comp. Embryol., Biskopsgatan 7, 223 62 LUND, Sweden

Kallus, P.; Dr. Phil. - Dept. of Bot., Univ. of Turku, 20500 TURKU 50, Finland

Kæmæn, G.; Ph. M. - Dept. of Anat., Univ. Med. Sch., Kossuth Lajos út 40, P.O. Box 512, 6701 SZEGER, Hungary

Developmental histochemistry and electron microscopy of the autonomic ground plexus. Rattus rattus (Rodentia) (with B. Cisslik, M. Gajo and E. Knyihar)

Kalthoff, K.: Dr. rer. nat. - Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG/Br., B.R.D. (Germany)

Anterior morphogenetic determinant. Smitta spec. (Chironomidae, Diptera)

Photoreactivation of UV irradiated cells. Same species as a

Kaluza, J. S.; M.D. - Dept. of Neuropathol., Inst. of Pharmacol., Polish Acad. of Sci., Botaniczna-str. 3, KRAKÓW, Poland

Nonenzymatic oxidation-reduction systems in fiber membranes of the central nervous system in ontogenetic development. Felis domesticus (Carnivora), Rattus norvegicus (Rodentia)

Kamlér, M. E.; Dr. - Dept. of Ecol. Bioenerget., Inst. of Ecol., Polish Acad. of Sci., Pasteura 3, P.O. Box 64, 00–973 WARSZAWA, Poland

Eccological and physiological reasons of variability of egg endowment with energy reserves. Coregonus alburnus (Teleostei)


Kaprio, E. A.; B.Sc.(hons.), B.M., B.Ch. - Lab. of Exp. Embryol., Dept. of Zool., Univ. of Helsinki, Arkadiakatu 7, 00100 HELSINKI 10, Finland

Ultrastructure of the limb bud. Gallus domesticus (Aves)

Karcher (Djuricic), Ms. V.; D.Sc. - Inst. d'Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

Epithelial-mesenchymal interactions, mitosis and differentiation in teeth. Mus musculus (Rodentia)

Karkin-Lääskäinen, Ms. M.; M.D. - Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

Mechanism of lens induction. Gallus gallus (Aves)

Karlinsson, B.; Fil.Dr. - Zoophysiol. Inst., Univ. of Lund, Helgonavägen 3b, 223 62 LUND, Sweden


Effects of pollutants on reproduction. (Teleostei)

Karris, C. M.; Dr. - Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands

Kassner, J.; Ph.D. - Inst. of Zool., Univ. of Wrocław, ul. Scienkiewicza 21, 50–335 WROCŁAW, Poland

Ultrastructure of ova and the fertilization process. Mus musculus (Rodentia)


Reproductive cycle. marine spp. (Lamellibranchia; Echinoidea; Asteroidea)

Origin of germ cells. (Mollusca; Echinodermata)

Larval development. (Asteroidea)

Kaufman, M. H.; Ph.D. - Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England

Parthenogenetic activation and the factors which influence pre- and post-implantation development of haploid and diploid parthenogenomes; biochemical examination of macromolecular synthesis and its regulation during early development in parthenogenetic compared with fertilized eggs and embryos. Mus musculus (Rodentia)

Factors which influence oocyte maturation and steroidogenesis in Graafian follicles in culture; effects of various agents on gametogenesis and embryo genesis. Mus musculus, Rattus spec. (Rodentia)

Kaufmann, P.; Dr. med. - Anat. Inst., Abt. für Neuroanat., Univ. Krankenhaus Eppendorf, Martinistr. 52, 2 HAMBURG 20, B.R.D. (Germany)

Development and chemodifferentiation of the placenta (electron microscopy, enzyme histochemistry). Covia porcellus (Rodentia), Homo sapiens (Primates)

Development and chemodifferentiation of the cortex cerebri and cerebelli (light microscopy, electron microscopy, enzyme histochemistry). Mus musculus, Rattus norvegicus (Rodentia)

Kaurow, B. A.; Dr. - Lab. of Exp. Genet., Inst. of Med. Genet., Kashirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.

Pattern formation in aggregates of imaginal disc cells. Drosophila melanogaster (Diptera)

Plieotropy of homeotic genes. Same species as a


Possible role of neural crest in craniofacial malformations. Gallus domesticus (Aves), Callithrix jacchus (Primates)

Hyperthermia, thalidomide and bleighted potatoes (extracts and possible contaminants) as teratogenic agents; collection of normal data; techniques required. Rattus norvegicus (Rodentia), Macaca irus, Callithrix jacchus (Primates)

Characteristics of microphthalmic and white mutants with a view to relating the phenotypic effects to developmental events and elucidating the specific action of the mutation. Mus musculus (Rodentia)

Kelly, W. A.; Ph.D. - Anat. Dept., Bristol Univ., University Walk, BRISTOL BS8 1TD, England
Role
Differentiation
Interactions
Development
Morphogenesis
Cell
Dedifferentiation
Somitic
Histology
Regulation
Virus-induced
Differences
Nucleoh...
Extrachromosomal DNA and its role in oogenesis. (Staphylinidae, Coleoptera)

KNEGT, E., Dr. - Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands

KNESE, K.-H.; Dr.med., Dr.phil., Prof. - Inst. für Histol. und Embryol., Univ. Hohenheim (LH), Frwirthstr. 16, 7000 STUTTGART 70, B.R.D. (Germany)

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)

KONIJN, b; RNDr., Ph.D. - Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia

Genetics and cytology of muscle growth. Gallus domesticus (Aves), Bos taurus, Sus domesticus (Artiodactyla) (with H. KNÍZETOVÁ)

KNÍZETOVÁ (MYSLIVEČKOVÁ), Ms. H.; RNDr. - Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia

Genetics and cytology of muscle growth. Gallus domesticus (Aves), Bos taurus, Sus domesticus (Artiodactyla) (with K. KNÍZE)

KNOCHEL, W.; Dr rer. nat., Dr.med. - Inst. für Molek. Biol. und Biochem., Freie Univ., Arnimallee 22, 1000 BERLIN 33, B.R.D. (Germany)

Regulation of information transfer from DNA to protein with special interest in globin mRNA precursor molecules. Gallus gallus (Aves)

KNOWLAND, J. S.; D.Phil. - Dept. of Anat., Med. School, Bristol Univ., University Walk, BRISTOL BS8 1TD, England

KNUDSEN, P. A.; M.D., D.D.S., Ph.D., Prof. - Dept. of Anat., Royal Dent. Coll., Vennelysst Blvd., 8000 ARIHUS C, Denmark

Malformations of the vascular system of brain and head. Mus musculus, Rattus norvegicus (Rodentia) (with J. BUGGE)


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

KNYIHÁR, Ms. E.; M.D. - Dept. of Anat., Univ. Med. Sch., Kosuth Lajos út 40, P.O. Box 512, 6701 SZEGED, Hungary

Developmental histochemistry and electron microscopy of the autonomic ground plexus. Rattus rattus (Rodentia) (with B. CSILLIK, M. GAJÓ and G. KALMAN)

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

KOCHER, W.; Dr., Prof. - Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)

KOČOVA (PECHÁČKOVÁ), Ms. J.; Dr.med. - Inst. of Histol. and Embryol., Charles Univ., Karlovarska 48, 30167 PLZEŇ, Czechoslovakia

The development of the venous system. Homo sapiens (Primates)


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

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

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

Expériences (homogreffes) sur l'hématopoïèse embryonnaire. Gallus domesticus (Aves) (avec H. GERARD)


Comparative embryology. Lernaeocera spec. (Copepoda), Triops cancriciformis, Lepidurus apus (Notostraca, Crustacea)

KOMAR, Ms. A.; Mgr. - Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Med. Acad., Karowa 2, 00–315 WARSAW, Poland

Influence of the relative age of gametes on embryonic development. Mus musculus (Rodentia)

Experimental parthenogenesis. Same species as a

Physiology of fertilization. Same species as a

KONDO, M.; Ph.D., D.Sc. - Lab. of Microbiol., Dept. of Cell Biol., Univ. of Antwerpen, Universiteitsplein I, 2610 WILRIJK, Belgium

Transcriptional regulation of cryptobiotic process during early embryonic development. Artemia salina (Anostraca, Crustacea)

Regulatory mechanism on gene expression of the extracellular haemoglobin. Same species as a

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, LEIDEN, Netherlands

Chemotaxis, cell aggregation and differentiation. (Acrasiales)
b Distribution of non-histone proteins, synthesized during maturation, between nucleus and cytoplasm of early embryo. Same species as a.

KOSTOVIC, I.; D.Sc., M.D. - Inst. of Anat. "Drago Perovic", Fac. of Med., Univ. of Zagreb, Salata 11, 41001 ZAGREB, Yugoslavia

a Morphogenesis of the mesenchyme-neuroepithelial interface (including vascularization) in the telencephalon. Rattus norvegicus (Rodentia), Homo sapiens (Primates) (with Lj. KOSTOVIC, Inst. of Histol. and Embryol.)

KOSTOVIC (KNEZEVIC), Ms. Lj.; M.D. - Inst. of Histol. and Embryol., Fac. of Med., Univ. of Zagreb, Salata 3, P.O. Box 166, 41001 ZAGREB, Yugoslavia

a Chondrogenesis in the external ear (histology, histochemistry, electron microscopy). Rattus norvegicus (Rodentia) (with A. SVAJGER and Z. BRADAMANTE)

b Differentiation of the intercellular matrix during ontogenesis (histology, histochemistry, electron microscopy). Same species as a (with A. SVAJGER and Z. BRADAMANTE)

c Morphogenesis of the mesenchyme-neuroepithelial interface (including vascularization) in the telencephalon. Rattus norvegicus (Rodentia), Homo sapiens (Primates) (with I. KOSTOVIC, Inst. of Anat.)

KOTOMIN, A. V. - Inst. of Devl. Biol., USSR Acad. of Sci., Vavilov St.26, MOSCOW 117334, USSR

KROZIK, M.; M.D. - Inst. of Neurol. and Sensory Organs, Med. Acad., 49 Przybyszewskiego St., 60-355 Poznan, Poland

a Histochemistry of glia cells in the developing nervous system. Rattus norvegicus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

b Histochemical mapping of the developing brain. Rattus norvegicus (Rodentia)

KROZOWSKA, Ms. M.; mgr.of sci. - Dept. of Comp. Anat., Jagellonian Univ., ul.Krupnicza 50, 30-060 KRAKOW, Poland

a Early development of muscle fibres. Salmo trutta (Teleosti)

KRAL, B.; RNDr. - Dept. of Morphol., Inst. of Vertebr. Zool., Czechosl. Acad. of Sci., Kvetna 8, 60365 BRNO, Czechoslovakia

a Comparative study of chromosomes. (Insectivora; Rodentia)

KRALJ, N.: Ph.D. - Dept. of Zool., Univ. of Zagreb, Rooseveltov trg 6, 41000 ZAGREB, Yugoslavia

KRATCHIWIL, K.; Dr.phil. - Inst. für Molekularbiol., Abt. Biol., Österreich. Akad. der Wissensch., Bilrothstr. 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. M. C.; Dr.phil. - Brain Anat. Inst., Untere Zollgasse 71, (Waldua), 3072 OSTER-MUNDIGEN-BE, Switzerland

a Descriptive and comparative ontogenesis of the brain. (Cetacea)

KRAUS, R.; M.D. - Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia

KRAUSE, G.; Dr.phil., Prof. (Emer.) - Zool. Inst.I der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)

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

KRESS, Ms. A.; Ph.D. - Anat. Inst. der Univ., Pestaloizzistr. 20, 4056 BASEL, Switzerland

a Oogenesis. (Amphibia)

b Variability of egg-capsule volumes during development. (Opisthobranchia, Gastropoda)

KRITCHINSKA, Ms. E. B.; Cand.biol.sci. - Dept. of Embryol., Leningrad State Univ., Mendelejewsky St. 5, LENINGRAD 199164, U.S.S.R.

a Asexual reproduction, regeneration, and somatic embryogenesis. Dugesia tigrina (Turbellaria), Aeolosoma spec. (Oligochaeta)

KRMPOTIC-NEMANIC, Ms. J.; Prof. - Inst. of Anat. "Drago Perovic", Fac. of Med., Univ. of Zagreb, Salata 11, 41001 ZAGREB, Yugoslavia

KRAMBERGER, H.; Dr.renat., Prof. - Inst. für Genet., Univ. des Saarlandes, 66 SAARBÜCKEN 11, B.R.D. (Germany)

a Puffing patterns in giant chromosomes and the mechanism by which they are evoked and controlled. Chironomus thummi, Ch. tentans (Diptera)

b Embryology and genetics of pattern formation. Drosophila melanogaster (Diptera)

KRUCHKOVA, Ms. K.; prof. - Dept. of Embryol., Fac. of Biol., Charles Univ., 28 Vavilovova, 30365 BRNO, Czechoslovakia

a New evidence regarding the development of the nervous system of Drosophila melanogaster (Diptera)


a Oogenesis and embryonic development. Tetrodontophora bielanensis (Collembo1a)

KUBLI, E.; Dr.Phil. - Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland

a Nucleic acids of various mutants. Drosophila melanogaster (Diptera)

b tRNA gene localization, mechanisms of suppression. tRNA precursors. Same species as a.


a Negentropy and physical entropy during cell differentiation. Rattus norvegicus (Rodentia), Hydra vulgaris, H. viridissima (Hydrozoa)
b Ecdysone and juvenile hormone levels during development. Same species as a
c In vitro ecdysone binding and action. Same species as a


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.; Dr.Sc. – Station Zool., Univ. de Paris VI, 06230 VILLEFRANCHE SUR MER, France

a Biochemical aspects of embryonic determination (studies of animalizing and vegetalizing agents), Paracentrotus lividus (Echinoidae)

LAMERS, W. H. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands

a Developmental changes in activity of liver carbamylphosphate synthase. Ambystoma mexicanum (Urodela)

LANDAUER, W.; Ph.D., Prof. – Dept. of Human Genet. and Biometry, Univ. Coll. London, Wolfson House, 4 Stephenson Way, LONDON NW1 2HE, England

a A causal analysis of teratogenic action of various chemical compounds. Gallus domesticus (Aves)
b Cholinomimetic substances and other compounds interfering with neuromuscular development. Same species as a

LANDSTRÖM, U. – Dept. of Zoophysiol., Univ. of Umeå S 901 87 UMEÅ, Sweden

a Cell transformation and cell differentiation. Xenopus laevis (Anura), Ambystoma mexicanum (Urodela) (with S. and H. LOVTRUP)


a In vitro mutations. Drosophila spec. (Diptera)

LANOT, R.; Dr.Sc. – Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France

a Axial malformations: causal analysis of the teratogenic action of trypan blue and RNAs. Gallus gallus (Aves)
b Causal analysis of somitogenesis. Same species as a
c Morphology of normal and experimentally produced cell degeneration in the axial organs. Same species as a
d Causal analysis of early angiogenesis. Same species as a


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

a Development of inferior vena cava. Homo sapiens (Primates)

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

a Descriptive study of postembryonic development, especially moulting, ultrastructural changes of sensilla. Lepismatidae, Machilidae (Thysanura, Insecta)

LA SPINA (D’ANNA), Ms. R.; D.Sci. – Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Fine structure of unfertilized eggs and egg fragments. Ascidia malaca, Phallusia mammillata (Ascidia)
b Analysis of colour pattern; ultrastructure of chromatophores. Discoglossus pictus (Anura)


a Isolation and characterization of messenger RNA, messenger ribonucleoproteins and polyribo- somes. Drosophila hydei (Diptera), Locusta migratoria (Orthoptera)

LASSÈGUES (FLAMAND), Ms. M.; Dr.Biol.Nanim. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France

a Embryology. Sphaeroma spec. (Isopoda, Crustacea) (with N. DAGUERRE de HUREAUX)
b Cytophotometry of cell cycle during the first embryonic stages. Same species as a

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

a Control of sex determination and gametogenesis (organ culture). Eisenia foetida (Oligochaeta)
b Effects of inhibition of protein synthesis by cycloheximide in sexually active animals. Same species as a

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

LAUTHIER, M.; Dr.3e cycle – Lab. d’Embryol. Exp., Centre de Rech. du CNRS, 67 rue Maurice Günzburg, 94200 IVRY-sur-SEINE, France
Organogenèse des membres (histochemie, microchirurgie, cytologie ultrastructurale, tétarogénèse expérimentale). Pleurodeles waltl (Urodela).


LAWRENCE, A. J.; Ph.D. - Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NU, Scotland, U.K

a Control and temperature dependence of phospholipase activity in cell membranes; role of lipid degradation in membrane fusion; lipid segregation in membranes. Oretyloagus cuniculus (Lagomorpha).


a Compartiments in insect development. Drosophila melanogaster (Diptera), Oncopeltus fasciatus (Heteroptera).
b Developmental genetics of homoeotic mutants. Same species as a

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


LAZARD (HAUBEN), Ms. L.; D.Sc. - Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, NOGENT-sur-MARNE, France

a Degeneration of male germ cells in some t mutants; their possible transformation in tumorigenic cells; growth in vitro, transplantation in vitro, antigenic affinity with embryocarcinomal cell lines originating from germ cells (as F9 from mouse 129). Mus musculus (Rodentia).
b Retro-transformation of a teratocarcinomal cell line of germinal origin, grown in vitro, into cells having recovered spermatogénèse abilities. Same species as a

LE DOUARIN (CHAUVAC), Ms. N. M.; D.Sc., Prof. - Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

a Migration and differentiation of neural crest cells (interspecific grafts). Gallus gallus, Coturnix c. japonica (Aves).
b Differentiation of the autonomic nervous system studied in chimeric embryos. Same species as a
c Development of primary lymphoid organs. Same species as a

d Migration and homing of lymphoid stem cells studied in embryos by interspecific chimeras. Same species as a

e Experiments on liver development. Same species as a

LEENDERS, H. J.; Dr. - Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands

a The mechanism of gene activation by factors involved in respiratory metabolism; experimental puff induction. Drosophila hydei (Diptera).

LEES, A. D.; Sc.D., Prof. - Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks: SL5 7DE, England

a Control of polymorphic development with specific reference to environmental factors and hormones. Megoura vicie (Aphididae, Homoptera).

LEEUWEN, F. W. van; Dts.; - Netherl. Inst. for Brain Res., Uldijk 28, AMSTERDAM, Netherlands

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

LEFFORD (FERNANDO), Ms. F.; Ph.D. - Dept. of Anat. and Embryol., Univ. Coll. London, Gower St., LONDON WC1 E6BT, 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

Etude 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 malphigian system during larval life and metamorphosis: normal development; nutritional factor; transplantation; culture in vitro. Galleria mellonella (Lepidoptera).
b Comparative research of the development of malphigian system. Tineidae and other families (Lepidoptera).

LEGAY, J. M.; D.Sc., Prof. - Dept. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France

a Morphogenèse, Bombbyx mori (Lepidoptera).

LEGENDRE, R.; Drerrer, nat., D.Sc., Prof. - Lab. de Zool. II (Morphol. et Écol.), Univ. des Sci. et Techn. du Languedoc, place E. Bataillon, 34060 MONTPELLIER, France

a Embryonic and post-embryonic development. (Araneida, Arachnida)

LEGRAND, C.; D.Sc. - Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât. A, 7ème étage, 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

LEGRAND (HAMELIN), Ms. E.; Dr., Prof. - Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France

a Contrôle génétique et humoral du sexe. Idotea balthica (Isopoda, Crustacea).
b Effect of temperature, photoperiod and salinity on inversion of sex and intersexuality. Same species as a

LEGRAND, J. J.; Dr., Prof. - Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France

b Action at cellular and organic level of infectious agents (bacteroids, virus) and of external factors (temperature, photoperiod) on invasion of sex and intersexuality. Same species as a

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

a Pre- and postnatal functional maturation of the hepatocyte. Rattus norvegicus (Rodentia) (with J. M. FELIX and R. L. JACQUOT)


a Structural and biochemical aspects of flight muscle protein development and z-disc during metamorphosis. Ephesia kühniella, Galleria mellonella (Lepidoptera)

LEHTONEN, E. I.; M.D. – Dept. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with L. O. SAXÉN, J. J. WARTIOVAARA, A. NORDLING, P. EKBLOM and J. SALONEN)

LEHTONEN, J. – Dept. of Bot., Univ. of Turku, 20500 TURKU 50, Finland

LEIBENGUTH, F.; Dr rer. nat., Prof. – Inst. für Genet., Univ. des Saarlandes, 66 SAARBRÜCKEN 11, B.R.D. (Germany)

a Mechanisms controlling ontogeny and tissue distribution of isoenzyme patterns by differential allele activity. Ephesia (= Anagasta) kühniella (Lepidoptera)

b Onset of embryonic gene expression in vivo and in vitro. Drosopha sahenogaster (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)

LEMEZ, L.; MUDr., Doc. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia

a Experimental topogenesis and morphology of the pneumogastric system. Gallus domesticus (Aves)

b Thrombocyte development. Same species as a

c Erythrocyte life span in the embryo. Same species as a

LE MOIGNE, A.; Prof. – Lab. de Biol. Anim., Univ. Paris XII (Val de Marne), av. du Gén. de Gaulle, 94000 CRÉTEIL, France

a Développement embryonnaire (microscopie électronique). (Planariidae, Turbellaria)

b RNA and protein synthesis, and cellular differentiation in regeneration (electron microscopy, biochemistry). Same species as a


a Architecture of the fetal and maternal placental blood vessels (corrosion preparations), and correlation of abnormal placental circulation with congenital malformations. Homo sapiens (Primates)

LENDER, Th.; Prof. – Lab. de Biol. Anim. A, Fac. des Sci., Univ. Paris-Sud, Bât. 445, 91405 ORSAY, France


a Embryogenesis of trypan blue induced spina bifida, exencephalus and facial abnormalities. Rattus norvegicus (Rodentia)

b Effect of vitamin deficiency on the incidence of congenital malformations. Same species as a


a Control of regeneration by some first messengers (neurohormones, polypeptides) and second messengers (nucleotides), Dugesia tigrina (Turbellaria), Metridium senile (Actinozoa)

LENZ, W.; Dr.med., Prof. – Inst. für Humangenet., Westf. Wilhelms Univ., Vezalissuweg 12–14, 4400 MUNSTER, B.R.D. (Germany)

a Classification problems of asymmetrical limb malformations. Homo sapiens (Primates)

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

a Laboratory rearing of larvae and juveniles. Various spp. (Lamellibranchia)

b Morphogenesis of the hinge in larvae. Veneridae, Pectinidae, Mytilidae, Ostreidae, Anomiidae and others (Lamellibranchia)

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

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

a Larval growth: 1. effect of feeding unicellular algae; 2. effect of hydrocarbons. Mytilus edulis, Pecten maximus (Lamellibranchia)

b Reproduction, life cycle, and postembryonic development, especially of hypogeous species: Specocyphes spp., Graetleriella spp., Diacyclops spp., Eucyclops spp. (Copepoda, Crustacea)
a Extracellular matrix fibrils as substrata for migrating neural crest cells and extending neurites in embryos (SEM, TEM). (Amphibia)

LOHMANN, K.; Dr. rer. nat. – Zool. Inst. der Univ., Weyertal 119, 5000 KÖLN 41, B.R.D. (Germany)
a Cytochemistry and biochemistry of gene activation during gastrulation and neurulation, especially gene nucleic acid synthesis and Triturus vulgaris (Urodele)
b DNA, RNA and protein synthesis in the cell cycle of embryonic cells. Same species as a

LOMBARD (DES GOUTTES), Ms. M. N.; D.Sc. – Unité de Physiol. Cell., U 22 INSERM, Inst. du Radium, Bât. 110, 91405 ORSAY, France
a Stereogenetic cells in developing ovary (cytology, light and electron microscopy, histochemistry of delta-5-3-beta-hydroxysteroid dehydrogenase). Mus musculus (Rodentia)
b Factors affecting in vitro 3H-thymidine uptake by embryonic and post-embryonic hepatic cells. Rattus norvegicus (Rodentia)
c Serum and liver cytosol factors affecting cell cycle frequency of hepatocytes during postnatal development. Same species as b
d Sex-related responses to in vivo stimulation of cell proliferation in the liver. Same species as b
e Postnatal plasmatic hormone level variations in relation with experimental induction of a wave of synchronized hepatocytes entering a cell cycle (S-phase). Same species as b

LONNING (VADE R), Ms. S.; Dr.phil. – Inst. of Biol. and Geol., Univ. of Tromsö, 9001 TROMSO, Norway
a Synthetic ovary; (with E. Rindorf) Prochilodus lineatus and P. nigricans (Cichlidae)
b Differentiation of blastodermoderm as a function of the vitellogenesis. (Amphibia)
c Differentiation of yolk cells; (with H. Jonsson) Heteropoda longifilis, H. oculata, H. balcanica and H. magnifica (Araneae)

differentiation; (with S. Welander) (Urodele)

LOON, L. C. van; Dr., Jr. – Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands

LOONES, Ms. M. T.; Dr.3e Cycle – Lab. de Génét. du Dévé, Univ. P. et M. Curie, Ctr. de Rech. d’Ivry, 67 rue M. Glinansburg, 94200 IVRY-sur-SEINE, France
a Spontaneous and induced mutations detected on lampbrush chromosomes and their relationship with embryogenesis. Pleurodeles poireti, P. wallii (Urodele)

LOPASHOV, G. V.; Dr.biol., Prof. – Inst. of Developm. Biol., Acad. of Sci. of the U.S.S.R., Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Inductive interactions of the cells in differentiating retina by means of combinations of cells of the eye rudiment and the gastrula ectoderm. Rana temporaria, Xenopus laevis (Anura)
b Stimulation of metaplasia of the pure pigmented epithelium of adults into retina by means of agents from newly differentiated retina. (Rodentia) (with A. A. SOLOGUB)
c Inductive transformation of iris and pigment epithelium into lens tissue by agents from lens epithelium. Rana temporaria (Anura) (with O. A. HOPERSKAYA)
d Artificial transformation of nucleo-cytoplasmic fragments under the action of living retina. Same species as c

LOS, J. A.; M.D. – Anat-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands
a Light microscopy, electron microscopy, histochemistry, physiology, and experimental teratogenesis of heart development in the embryo. Gallus domesticus (Aves), Mus musculus (Rodentia) (with H. M. LAANE and J. A. ROEST)
b Cell interactions in the embryonic heart. Gallus domesticus (Aves) (with J. A. ROEST)

LOUZET, J. P.; Dr.Biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Ultrastructure of the differentiation of ectodermal derivatives of the germ band. Carausius spec. (Phasmida)
b Segment morphogenesis and neurogenesis. Same species as a
c Comparative ultrastructural study of the pleuropodium. Carausius spec. (Phasmida), Locusta spec. (Orthoptera), Rhizotrogus spec. (Coleoptera), Pyrrhocoris spec. (Heteroptera)

LOVTRUP (REIN), Ms. H.; Fil.Dr. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEÅ, Sweden
a Mitochondrial differentiation during early ontogenesis. Xenopus laevis (Anura)
b Cell transformation and cell differentiation. Same species as a and Ambystoma mexicanum (Urodele) (with S. LOVTRUP and U. LANDSTRÖM)
c Metabolic processes during early development (glycolysis, pentose phosphate shunt and oxidative metabolism). Same species as a

LOVTRUP, S.; Dr.phil., Prof. – Dept. of Zoophysiol., Univ. of Umeå, 90187 UMEÅ, Sweden
a Cell transformation and cell differentiation. Xenopus laevis (Anura), Ambystoma mexicanum (Urodele) (with H. LOVTRUP and U. LANDSTRÖM)
b Differentiation of mitochondria. Xenopus laevis (Anura) (with H. LOVTRUP)

LUBSEN, Ms. N. H.; Dr. – Dept. of Genet., Cathol. Univ., Toernooiveld, Nijmegen, Netherlands
a Composition and function of primary gene products from newly activated puffs. Drosophila hydei (Diptera)

LUCAS, A.; Dr.Sci., Prof. – Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorgeu, 29283 BREST Cedex, France
a Experimental rearing of larvae; effect of pollutants and nutrition on growth and mortality. Mytilus edulis, Pectinidae, Veneridae (Lamellibranchia)
b Morphogenesis of reproductive apparatus; gonad differentiation; juvenile sexuality. (Lamellibranchia)

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)

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immunology of the maternal-foetal relationship. (Mammalia)
MacLEAN, N.; Ph.D.  – Dept. of Biol., Univ., SOUTHAMPTON S09 5NH, England
a Developmental changes in haemoglobin, and the control of its synthesis. Xenopus laevis (Anura),
Mus musculus, Rattus spec. (Rodentia), Gallus domesticus (Aves)
b Chromatin activation and repression during development.
ch.Boveresses, 1066 EPALINGES, Switzerland
a Quantitation of total DNA, RNA and proteins, and characterization of cytoplasmic polyadeny-
lated mRNAs in stage I-13 blastoderm. Gallus gallus (Aves) (with S. P. MODAK)
MacMILLAN, G.; Ph.D.  – Dept. of Devl. Biol., Marischal Coll., Univ. of Aberdeen, ABERDEEN
AB9 IAS, Scotland, U.K.
b Control of pigment pattern formation: interactions among chromatoplasts and between these
cells and their surrounding tissues (transplantation; tissue culture; wild-type and mutant albino
periodical). Xenopus laevis (Anura)
b Determination of neural crest cells. Same species as a
MADEL, M.; B.Sc.  – Devl. Biol. Group, Sch. of Biol. Sci., Univ. of Sussex, BRIGHTON BN1 9QG,
England
MÄDER, M.; Dr.  – Bot. Inst., Univ. Heidelberg, Hofmeisterweg 4, 69 HEIDELBERG, B.R.D.
(a) Enzymic differentiation of tissue in whole plants, tissue cultures and protoplasts; localisation of
peroxidases during cell development. Nicotiana tabacum (Solanaceae)
MADJEREK, Z. S.; Dr., Prof.  – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61,
AMSTERDAM-O., Netherlands
a Experimental studies on genito-urinary tract development. Mus spec. (Rodentia)
b Influence of fetotoxic and teratogenic agents on decidual reaction. Rattus spec. (Rodentia)
MAEHR, R.; M.Sc.  – Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH,
Switzerland
a Characterization of chromatin. Chironomus spec. (Diptera)
ib Ion sensitive gene activation of polytene salivary gland nuclei determined by RNA and protein
synthesis. Chironomus thummi, C. tentans (Diptera)
MAISONHAUTE, C.  – Lab. de Zool., Univ. de Paris XI, Centre d’Orsay, 91405 ORSAY, France
a Effect of alpha-aminatin in early embryogenesis (cleavage till early gastrula). Leptinotarsa
decemlineata (Coleoptera)
MAJORCA (MONTELEONE), Ms. A.; Dr.Sci.  – Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123
PALERMO, Italy
MÄKENEN (LÖNNBERG), Ms. P.-L.; M.Sc.  – Dept. of Forensic Med., Univ. of Turku, Kiinamyl-
lykatu 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
a Fonction hypophysaire somatotrope au cours de la vie foetale et neonatale. Homo sapiens
(Primates)
MALCHOW, D. W. H.; Ph.D.  – Biozentrum der Univ. Basel, Klingelbergstr. 70, 4056 BASEL, Switzerland
a Chemotaxis and aggregation; solubilization and function of receptor. Dictyostelium discoideum
(Acrasiales)
MALĘCKA, Ms. J.  – Dept. of Plant Cytol. and Embryol., Inst. of Bot., Jagellonian Univ., Grodzka
St.52, 31-044 KRAKÓW, Poland
MALET, P.; M.D.; Prof.  – Lab. d’Histol.-Embryol.-Cytagénét., Fac. de Méd., B.P.38, 63001
CLERMONT-FERRAND Cedex, France
a Morphogenesis and cytochemistry of perinatal and adult myocardium in cell culture; pharma-
cological study. Rattus spec. (Rodentia)
b Chromosome ultrastructure. Homo sapiens (Primates)
MALIKOVA, Ms. I. G.  – Dept. of Embryol., Leningrad State Univ., Mendelevsky St.5, LENINGRAD
199164, U.S.S.R.
a Restoration processes at different stages of ontogenesis. Dinophilus spec. (Archannelida),
Pygospio elegans (Polychaeta)
MALININA, Ms. N. A.; Cand.biol.sci.  – Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of
USSR, Profsojuznya St.7 (I), MOSCOW 117312, U.S.S.R.
a Developmental study of mutant gene effects on lens crystallins. Mus musculus (Rodentia)
MANCINO, G.; Dr.Biol., Prof.  – Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100
PIA, 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
Mechanisms of evagination and differentiation of imaginal discs in different culture media. 
Drosophila melanogaster (Diptera) 

Effect of ecdysteroids on DNA, RNA, and protein synthesis in in vitro cultured imaginal discs. 
Same species as a 

Cell culture of imaginal discs. Same species as a 

Scanning electron microscopy of cell surface modifications during in vitro evagination of imaginal discs. 
Same species as a 

Microcinematography of in vitro evagination of the discs. Same species as a 

Protein synthesis during in vitro development of imaginal discs (electrophoresis). Same species as a 

MANDEL, P.; Prof. - Ctr. de Neurochim., C.N.R.S., 11 rue Humann, 67085 STRASBOURG Cedex, France 

MANDYSOVÁ, Ms. E.; M.D. - Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia 

a Differentiation of small intestine epithelium during the last days of fetal development (electron microscopy). Rattus spec. (Rodentia) 

MANELLI, H.; Ph.D., Prof. - Ist. di Zool. "F. Raffaele", Univ. di Roma, Viale dell'Università 32, 00161 ROMA, Italy 

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

a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). Rattus rattus (Rodentia) 

b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia) 

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

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

b The effect of two free amino acids on pregnancy. Same species as a 


a Cell population and dynamics of developing nucleus habenularis (diencephalon). (Rodentia) 


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

a Maturation of immunocompetence correlated with development of the lymphoid tissues: removal of the thymus and exposure to antigenic stimulation (allografts, protein antigens, etc.) at different larval stages; in vitro studies of the immunological capabilities of lymphocytes. Xenopus laevis (Anura) 

b Investigations on embryonic development by use of radio-isotopes. Ciona intestinalis (Asciidiacea) 

b RNA synthesis in egg development. Ciona intestinalis, Ascidia malaca, Clavelina lepadiformis (Asciidiacea) 

c Egg stimulation by ionophore. Same species as a 

MANUKHIN, B. N.; Dr.biol. - Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St.26, MOSCOW 117334, U.S.S.R. 

a Uptake of neurotransmitters by early embryos. (Echinodermata) 

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 

MARCÉL, 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 fetida (Oligochaeta) 

b Ultrastructure of nerve cells during regeneration. Same species as a 

c Immuno-fluorescence of factors governing morphogenesis. Same species as a 

MARCHAL-SEGUALT, Ms. D. - Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d'Orsay, Bât.442, 91405 ORSAY, France 

a Effects of organochlorine and organophosphorus insecticides on development and metamorphosis. Bufo bufo, Xenopus laevis (Anura) 

B. MARCHAL, L.; Biol.CNRS - Lab. de Biol. Méd., Univ. de Nancy I, B.P.1080, 54019 NANCY Cedex, France 

a Histogenèse des cellules B du pancréas. Rattus norvegicus (Rodentia) 

MARCHAND, C. R.; Dr. 3e Cycle - Lab. de Zool. et Embryol., Univ. de Besançon, Place Maréchal Leclerc, 25030 BESANÇON Cedex, France 

a 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) 

MARILLY, Ms. M. - Lab. d'Histol. et Morphogen. Anim., Dépt. de Biol., Centre Univ. de Marseille-Luminy, 70 rue Léon Lachamp, 13288 MARSEILLE Cedex 2, France 

a DNA synthesis in regenerating tissue: 1. control; 2. release in previously quiescent cells; 3. variations in DNA polymerase activity during regeneration. Owenia fusiformis (Polychaeta) 

MARIN (LEWIN), Ms. L.; D.Sc. - Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49 bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
Embryotoxic effect of parathion on bovine amines (catecholamines) and glycogen (histochemistry, electron microscopy) Gallus domesticus (Aves)

Biochemistry of cholinesterases during induction and prevention of axonal teratogenesis. (Aves)

MEISTER, Ms. G.; Dr. – Zool. Inst. der Westf. Wilhelms Univ., Hüfferstr. 1, 4400 MÜNSTER, B.R.D. (Germany)
a Ultrastructure of embryonic blood cells (vacuolized round cells). Loligo vulgaris (Cephalopoda)
b Scanning electron microscopy on the radula of late embryo and newly hatched larvae. Loligo vulgaris, Sepia officinalis, Eledone cirrosa (Cephalopoda)

MELEHOVA, Ms. O. P.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
a Processes involving free radicals in normal and pathological development. Rana temporaria, R. esculenta (Anura) and other Vertebrae

a Development of retina and central nervous system, especially cerebral cortex and cerebellum (electron microscopy, autoradiography, tissue culture). Gallus domesticus (Aves), Mus musculus (Rodentia)
b Protein synthesis of differentiated nerve cells (autoradiography). Gallus domesticus (Aves)
c Cell aggregation, cell differentiation, and synaptogenesis in the central nervous system (tissue culture, transmission and scanning electron microscopy, freeze-etching, autoradiography). Same species as a

a The role of normal and experimentally induced necrosis in teratogenesis
b Cinematographical studies on growth and differentiation processes of the embryonic axial organs. Gallus domesticus (Aves)
c The influence of exogenous factors on embryonic development; prenatal pathology. Same species as b

Development of cerebral vesicles. Same species as b

MERCIER (PAROT), Ms. L.; Dr.Sci. – Lab. d’Embryol., U.E.R. Biomédi., 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France
a Tératogenèse par sulfamides hypoglycémiant, antimitabolites. 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 alcaloïdes du Rauwolfia, de la résépine et de la désépirdine 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)

Diabète expérimental et grossesse. (Mammalia)
f Influence des antimitotiques, des anticonvulsants et de la prostaglandine F2α sur la gestation. Même espèce comme d (avec H. TUCHMANN-DUPLESSIS)
g Mécanismes d’action de substances embryotoxiques (transfert d’œufs). (Rodentia) (avec C. ROUSSEL)

MERKER, H.-J.; Dr.med., Prof. – Anat. Inst. der Freien Univ. Berlin, Kön.-Luise-Str. 15, 1 BERLIN 33, B.R.D. (Germany)
MERKLE, U.; Dr.med., Prof. – Anat. Inst. der Univ. Erlangen-Nürnberg, Krankenhausstr. 91, 8520 ERLANGEN, B.R.D. (Germany)
a Spermatogenese und Sertoli-Zellen. Rattus spec. (Rodentia)

MESHCHER'YAKOV, V. N.; Cand.sci. – Chair of Embryol., Biol. Fac., State Univ. of Moscow, Lenin Hills, MOSCOW 117234, U.S.S.R.
a Spatial organization of spiral cleavage: symmetry; nature of cell contacts; spindle-cortex interactions. Lymnaea stagnalis, Physa spp., Aplexa hypnumor, Radix peregra (Gastropoda)
b Shell morphogenesis: correlation with cleavage asymmetry. Lymnaea stagnalis, Physa acuta (Gastropoda)
c Long-term culture of embryos with vitelline membranes removed. Lymnaea stagnalis (Gastropoda)
d Glycerinated models of eggs. Same species as c

MESSAGE, M. A.; Ph.D. – Anat. School, Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3DY, England
a Development of muscle, primarily with histochemical techniques. Xenopus laevis (Anura), Mus musculus, Rattus norvegicus (Rodentia)
b Development of tissue culture techniques for study of myogenesis.
c Computer simulation of organogenesis with particular reference to limbs

MESTRE, J.-C.; Prof. – Lab. de Biol. Cell. Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France
a Morphology and physiology of embryoids originating from callus. (Angiospermae)
b Physiological and morphological relations of the embryo with its surroundings during development in situ. (Angiospermae)

MESTRES, P.; Dr.med. – Lehrst. für Anat. I, Ruhr-Univ., Universitätsstr. 150, Postfach 102148, 4630 BOCHUM 1, B.R.D. (Germany)
a Development of the pituitary. Rattus norvegicus (Rodentia)
b Influences of hormones and drugs on neurogenesis and sexual differentiation of the hypothalamus (transmission and scanning electron microscopy, histochemistry). Same species as a
c Cell arrangement and cell contacts in early stages of development; cytchemistry of the cell surface. Gallus gallus (Aves)

METAFORA, S.; Dr. - Lab. of Molec. Embryol., Consiglio Naz. delle Ricerche, Via Toiano 2, 80072 ARCO FELICE (Napoli), Italy

MEUSY, J. J.; Dr. - Lab. Sex. et Reprod. des Invertebr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France

a Electrotransphoresis and immunocytochemistry of the female specific protein: vitellogenin. Orchestra gammadreus (Amphipoda, Crustacea)
b Androgenic hormone (Crustacea)

MGLINETZ, V. A.; Dr. - Lab. of Exp. Genet., Inst. of Med. Genet., Kaskirskoye Chaussee 6a, 115478 MOSCOW, U.S.S.R.

d Determination of imaginal disc cells in normal and mutant strains. Drosophila melanogaster (Diptera)
b Interaction of homoecotic and non-homoecotic genes during development. Same species as a
temperature sensitivity of homoecotic and non-homoecotic mutants. Same species as a

MICHAEL, Ms. P.; B.Sc., M. (phil) - Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands

a Origin and migration of primordial germ cells studied in xenoplasic recombinates of urodelen and anuran blastulae. Triturus alpestris, Ambystoma mexicanum (Urodela), Xenopus laevis, Bombina orientalis, Discoglossus pictus, Rana lessonae, R. pipiens (Anura)


a Locomotion and behaviour of epithelial cells in tissue culture. Gallus gallus (Aves), Mus musculus (Rodentia)


a Developmental and biochemical studies on the inductive capacities of the retina during embryogenesis. Rana temporaria (Anura), Gallus domesticus (Aves)

b Biochemistry and immunocytochemistry of the retinal protein structure during optic cup formation. Gallus domesticus (Aves)

b Immunocytochemistry of certain lens proteins in adults and embryos. Scylliorhinus canicula (E lambranchii), Rana temporaria (Anura), Gallus domesticus (Aves)

MIKLUSKA, M.; I.; D.Sc., Prof. - Dept. of Zool., Inst. of Biol., Univ. of N. Copernicus, Gagarina 9, 87-100 TORUN, Poland

a Teratogenesis caused by abnormal temperature. (Araneae, Arachnida)

b Gametogenesis. Tegeneria atrica (Araneae, Arachnida)

MILAIRE, J.; M.D., Prof. - Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 rue aux Laines, 1000 BRUXELLES, Belgium

MILANO-GRASSI, Ms. E.; Dr.biol.sci. - Ist. di Zool. “Federico Raffaele”, Viale dell’Universitá 32, 00161 ROMA (7), Italy

MILKOVIC (ZULI), Ms. K.; Ph.D., Prof. - Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia

a Development and function of the pituitary-adrenocortical system in foetus and neonate (biochemistry, histology, histochemistry). Rattus norvegicus (Rodentia) (with R. KLEPAC, M. PERUZOVIĆ and J. PAUNOVIĆ)
b Effects of perinatal influences, especially adrenocorticoïds, on emotionality, active and passive avoidance conditioning. Same species as a (with M. PERUZOVIĆ and J. PAUNOVIĆ)

MINGANTI, A.; Dr., Prof. - Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy

a Effects of cholestherase inhibitors on development (Ascidiaceae; Echinoidae)

b Acetylcholine receptors in eggs and early embryos. Same species as a

MIRCOW, Ms. O.; M.D. - Dept. of Med. Biol., Med. School, P-ja 23 August 1, 1900 TIMISOARA, Rumania

a Development of facial primordia. Gallus domesticus (Aves)
b Teratogenesis

a Isolation and characterization of chromosome-sized Y DNA from eye-antenna-discs. Drosophila hydei (Diptera)
b Processing of ribosomal RNA from testes. Same species as a


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 L. I. KOROCHKIN and S. M. SVIRIDOV, Novosibirsk)
c Differences of regional differences in neural retina and pigment epithelium (synthesis of DNA, RNA). Acipenser stellatus, A. gueldenstädtii (Chondrostei) (with O.G. STROEVA and E.A. BABURINA)
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

a Hypothalamic control of thyroid function in fetus and neonate. Oryctolagus cuniculus (Lagomorpha), Cavia porcellus, Rattus spec. (Rodentia)
b Influence of encephalometry on adrenocortical and thyroid function in the fetus. Same species as a

MOCQUARD, J.-P.; Dr. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France
a Etude statistique de la croissance et de la mue; action des facteurs externes sur les systèmes neuro-sécrétoryes. Porcellio dilatatus, Ligia oceanica (Isopoda, Crustacea)
b Recherches sur l'expression mathématique des lois de la croissance relative, plus particulièrement des organes soumis aux hormones sexuelles. Same species as a

MOCZAR, Ms. M.; Ph.D. – Lab. de Biochim. du Tissu Conjonct., Univ. de Paris XII, 6 rue du Gén.Sarrail, 94000 CRÉTIL, 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)

a Isolation and characterization of the nuclear and cytoplasmic non-mitochondrial DNA, synthesized during erythropoiesis. Anas platyrhynchos (Aves)
b Qualitative and quantitative changes in the genome during lens fiber cell differentiation
c Factors controlling de- and redifferentiation of cultured iris epithelial cells, studied by cell injection combined with immunofluorescence for gamma crystallin. Notophthalmus viridescens (Urodela) (with T. YAMADA)
d Quantification of total DNA, RNA and proteins, and characterization of cytoplasmic polyadenylated mRNAs in stage 1-13 blastoderm, Gallus gallus (Aves) (with G. McMASTER)

MODLINSKI, J. A.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak. Przedmiescie 26/28, 00-927 WARSZAWA, Poland
a Microsurgery of early embryos. Mus musculus (Rodentia)
b Fertilization and early development. Same species as a

MOFFAT, D. B.; M.D., Prof. – Dept. of Anat., Univ. Coll., P.O.Box 78, CARDIFF CF1 1XL, Wales, U.K.
a Postnatal development of kidney. Rattus spec. (Rodentia), Homo sapiens (Primates)

MOHALLAL, M. E. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 7 quai Saint-Bernard, 75230 PARIS Cedex 05, France
a Enzyme histochemistry and ultrastructure of the placenta during development and effect of fetectomy and prostaglandins on placenta development. Rattus norvegicus (Rodentia)

a Mechanism of phytochrome action at the level of phytochrome-mediated enzyme induction and enzyme repression, and its relation to development. Sinapis alba (Cruciferae)

MOLEN, Ms. L.G. van der; Dr. – Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaisrerstr. 63, LEIDEN, the Netherlands
a Changes in populations of organelles during cellular differentiation (E. M., cytochemistry, biochemistry). Calliphora erythrocephala (Insecta)


MONESI, V.; M.D., Prof. – Inst. di Istol. ed Embriol. Gen., Univ. di Roma, Via A. Borelli 50, 00161 ROMA, Italy
a RNA and protein synthesis in differentiating spermatooza. Mus musculus (Rodentia)
b Somatic-germ cell interaction in spermatogenesis: biochemistry and function of Sertoli cells; germ cell-Sertoli cell culture. Same species as a

a Simultaneous measurement of the activity of enzymes coded for by genes on the X-chromosome and on autosomes to determine whether or not both X-chromosomes are active during pre-implantation development. Mus musculus (Rodentia)
b Factors involved in the regulation of implantation, studied in a culture system. Same species as a

MONNER, M.; Dr. – Lab. d’Histophysiol. Végét., 12 rue Cuvier, 75005 PARIS, France
a Development of the immature embryo cultivated in vitro. Capsella bursa pastoris ( Cruciferae)
b Development of the mature embryo cultivated in vitro. Phaseolus vulgaris (Papilionaceae)

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

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a Physiology of fertilization. Ciona intestinalis, Ascidia malacea, Phallusia mammillata (Ascidiae).
b Control of cell division in the embryo; role of cell interactions. Paracentrotus lividus, Sphaerechinus granularis (Echinoidea).

MOOLENAAR, W. H.; Drs. - Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalaalan 8, 3584 CT UTRECHT, Netherlands also: Physiol. Lab., State Univ., Wassenaarseweg 62, LEIDEN, Netherlands
Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, Mus musculus (Rodentia) (with J. G. BLUMINK, S. W. de LAAT, P. T. van der SAAG and S. A. NELEMANS)

MOOR, R. M.; Ph.D. - A.R.C. Unit of Reprod. Physiol. and Biochem., Univ. of Cambridge, 307 Huntingdon Rd., CAMBRIDGE, CB3 0JQ, England

MOORE, D.; Ph.D. - Dept. of Bot., Univ., MANCHESTER M1 3 PL, England
a Metabolic and enzymological studies of sporophore development, especially nitrogen metabolism and identification of enzyme regulatory events which can be related to specific aspects of morphogenesis. Coprinus cinereus (Fungi)
b Mutants in genes determining enzymes known to be involved in sporophore morphogenesis (polymorphic variants and electrophoretic mapping). Same species as a

MOORES, G. R.; Ph.D. - Dept. of Cell Biol., Univ. of Glasgow, GLASGOW G11 6NQ, Scotland, U.K.
a Surface properties and behaviour of embryonic cells. Gallus gallus (Aves)
b


a Biophysical and biochemical membrane changes during meiosis reinitiation; analysis of maturation promoting factor (microinjection). Xenopus laevis (Anura), Marthasterias glacialis (Asteroidea)
b Cell contacts during early embryogenesis. Sphaerechinus granularis (Echinoidea), Patella vulgata (Gastropoda), Dentalium dentale (Scaphopoda)

MOREAU, M. N.; Dr. 3e Cycle - Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivy, 67 rue M. Günzburg, 94200 IVRY-sur-SEINE, France

MOREAU, M. N.; Dr. 3e Cycle - Lab. de Génét. du Dévl., Univ. P. et M. Curie, Ctr. de Rech. d'Ivy, 67 rue M. Günzburg, 94200 IVRY-sur-SEINE, France
a Biosynthesis of endogenous proteins during oogenesis. Pleurodeles poireti (Urodela)
MORGAN (WRIGHT), M. M.; Ph.D. - Dept. of Environm. Sci., Plymouth Polytechnic, Drake's Circus, PLYMOUTH PL4 8AA, England
a Morphology and normal table from fertilization to hatching. Salmo gairdneri (Teleostei)
b Effect of temperature on early development. Same species as a
a Ultrastructure of the developing palate and early cleft palate. Rattus spec. (Rodentia)

MORIN, J. - Lab. d'Histol-Embryol., Fac. de Médi., Bd.Winston Churchill, B.P.38, 63001 CLERMONT-FERRAND Cedex, France
a Light and electron microscopic studies of chromosomes after different treatments. (Mammalia)
MORRIS, B.; Ph.D. - Dept. of Zool., Univ. of Nottingham, NOTTINGHAM, England
a Antibody absorption by neonates. Rattus norvegicus (Rodentia)
b Electron microscopy and physiology of postnatal gastric and intestinal development. Same species as a
MORRIS, I. G.; Ph.D. - Dept. of Zool., Univ. Coll. of N. Wales, BANGOR, Caerns., Wales, U.K.
a Transmission of serum proteins across foetal membranes and neonate gut. Mus musculus, Rattus norvegicus (Rodentia)

MORRIS, M. G. M.; Ph.D. - Dept. of Human Anat., Univ. of Oxford, South Parks Rd., OXFORD OX1 3QJ, England
a Mechanisms of normal and abnormal development in early postimplantation embryos in vivo and in vitro. Rattus spec. (Rodentia)
b Normal and abnormal development of neural tube, face and ear. Same species as a
MOSNA, M. G.; Dr. - Ist. di Genet., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy
a Attempts to obtain cells growing in a defined medium. Drosophila melanogaster (Diptera)
b Cloning of established cells. Same species as a
cytological aspects of postnatal pregnancy, autoradiography of DNA synthesis. Allolobophora citrica (Oligochaeta)
MOUZE, M. - Serv. de Biol. Anim., Univ. des Sci. et Techn. de Lille, B.P.36, 59650 VILLENEUVE D'ASCO, France
a Étude descriptive de la croissance de l'œuf; étude expérimentale des facteurs morphogénétiques et hormonaux qui contrôlent cette croissance. Aeshna cyanea, Anax imperator (Odonata)
MOYSE, J.; Ph.D. - Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.

MRAŽKOVÁ (SEVČÍKOVÁ), M. O.; MUDr. - Dept. of Anat., Charles Univ., U nemojnice 3, 12800 PRAHA 2, Czechoslovakia

a Prenatal development of limb vasculisation. Homo sapiens (Primates)
a Time and place (organ) of origin of cell types involved in the immune response (plaque-test of Jerne, scale-transplantation, immuno-electrophoresis, histology, immunofluorescence, etc.).
Cyprinus carpio, Barbus conchoonius (Teleostei)

MULAREK, Ms. O.; M.D. - Inst. of Neuroul. and Sensory Organs, Med. Acad., Przybyszewskiego St. 49, 60-355 POZNAŃ, Poland

a Histochemistry of glia cells in the developing nervous system. Rattus norvegicus (Rodentia)

MÜLLER, Ms. F.; Dr rer. nat. - Anat. Inst. der Univ., Pestalozzi str. 20, 4056 BASEL, Switzerland

a Effect of LSD on development of the embryonic nervous system. Mesocricetus auratus (Rodentia)

b Development of the dural arteries. Homo sapiens (Primates)

MULLER, J. P.; M.Sc. - Lab. de Génét. du Dév., Univ. P. et M. Curie, Ctr. de Rech. d'Ivy, 67 rue M. Günzburg, 94200 IVRY-sur-SEINE, France

a Nuclear ribonucleoprotein particles in oocytes. Pleurodeles poireti (Urodelia)

MULLER, 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)

MULLER, W. A.; Dr. rer. nat.; Prof. Zoöl. Inst. der Univ., Im Neuenheimer Feld 230, 6900 HEIDELBERG, B.R.D. (Germany)

a Role of morphons and neuroid functions in morphogenesis (metamorphosis, regeneration).

Hydractinia spec., Hydra spec. (Hydroidoa), Cassiopea spec. (Scyphozoa)

b Polar morphogenesis and RNA metabolism in early development. Hydractinia spec. (Hydroidoa)

Membrane ATPases and ion exchange in development (embryogenesis, metamorphosis).

Same species as b

d Factors releasing settlement and metamorphosis. (lower Invertebrata, especially Coeleterata)

MULNARD, M.; MS. - Lab. d'Anat. et d'Embryol. Hum., Univ. Libre de Bruxelles, 97 rue aux Laines, 1000 BRUXELLES, Belgium

MUNOZ CUEVAS, A. - Lab. Souterrain du C.N.R.S., 09410 MOULIS, France

a Différenciation, régression et ultrastructure des yeux. Ichthyopsalis spec. (Phalangida, Arachnida)

MUNTZ (REID), Ms. L.; Ph.D. - Dept. of Zool., Univ. of Reading, Whiteknights Park, READING RG6 2AJ, England

a Comparative studies on the structural development of nerves and muscles. Xenopus laevis, Eleutherodactylus martincensis, Rana temporaria (Anura), Triturus spec. (Urodelia)

b Electron microscopy of muscle development and degeneration. Same species as a


MURBACH, Ms. V. E.; Lic.Phil.II - Zahnräztli. Inst., Abt. Orale Strukturbiol., Univ. Zürich, Plattenstrasse 11, 8028 ZURICH, Switzerland

a Development of oral tissues, especially tooth papilla, pulp and mucous membrane (microscopy, stereomicroscopy, 3-dimensional reconstructions). Homo sapiens (Primates)

MUSY, J. P.; M.D. - Inst. d'Histol. et d'Embryol. Gén., Univ. de Fribourg, Pérolles, 1700 Fribourg, Switzerland

c Cytophotometry on embryonic fibroblasts: DNA content as a function of oxygen concentration. Gallus domesticus (Aves)

MUTOLO, V.; M.D., Prof. - Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

a Cell interactions in embryos. Paracentrotus lividus (Echinoida)

b Ribosomal and mitochondrial RNA synthesis in embryogenesis. Same species as a

c RNA synthesis in regenerative liver, especially mitochondrial RNA. Rattus spec. (Rodentia)


a Immunological aspects of insulin therapy in diabetic pregnancies. Cavia porcellus (Rodentia), Homo sapiens (Primates)

MYSTKOWSKA-BAZCZKOWSKA, Ms. E. T.; Dr. biol. - Lab. of Exper. Embryol., Inst. of Obstet. and Gynecol., Medical Academy, Karowa 2, 00-315 WARSZAWA, Poland

a Embryonic development. Clethrionomys glareolus (Rodentia)

b Interspecific chimaeric embryos. Mus musculus, Clethrionomys glareolus (Rodentia)

NAAKTGBOREN, C.; Dr. - Dept. of Obstet. and Gynecol., Wilhelmina Gasthuis, 1e Helmerstra. 104, AMSTELDAM, Netherlands

a Electrophysiology of the uterus in the perinatal period, studied in vivo. Canis familiaris (Carnivora), Ovis aries, Sus scrofa (Artiodactyla), Oryctolagus cuniculus (Lagomorpha)

b Psychogenen influences on uterine physiology and fetal development. Same species as a

NADAL, CI.; 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. Sus spec.

NAGEL, Ms. M. D.; Dr. 3e cycle - Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France

a Hemopoietic function of the foetal liver; factors controlling its progressive disappearance. Rattus norvegicus (Rodentia) (with R. L. JACQUOT, M. D. NAGEL and C. BILLAT)

NAGEL, Ms. M. D.; Dr. 3e cycle - Lab. de Physiol. Anim., Univ. de Reims, B.P.347, 51062 REIMS Cedex, France
b Apical dominance and growth correlations between buds. Same species as a
c Vascular histogenesis: 1. working of normal cambium; 2. neoformation of cambium. Same species as a
d Determination of flowering and flower morphogenesis (microsurgical method) Pismum sativum (Leguminosae)
e Seed dormancy and germination. Olea europaea (Oleaceae), Quercus ilex (Fagaceae)
f Root morphogenesis: 1. regeneration; 2. tropism control. Quercus ilex (Fagaceae)

NEW, D. A. T.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England

a Development of methods for growing embryos in culture. Rattus spec., Mus musculus (Rodentia)
b Growth and differentiation of the placenta. (Rodentia)
c Teratogenic effects of hyperthermia, excess glucose and steroid hormones

NEWTH, D. R.; Ph.D. – Dept. of Zool., Univ. of Glasgow, GLASGOW G12 8QC, Scotland, U.K.
a Properties of primordial germ cells. Xenopus laevis (Anura)

b Transplantation immunobiology. Same species as a

NEYFAKH, A. A.; Dr.biol., Prof. – Lab. of Biochem. Embryol., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.

NGOC-HO, Ms. N.; Dr. 3e cycle – Dept. of Zool., Brit. Museum (Nat.Hist.), Cromwell Rd., LONDON SW7 5BD, England

a Larval development. (Thalassiniidea, 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

Geneticin and chromosome development mutants. Euglena gracilis (Euglenophyceae)


NICOTRA, Ms. A.; Dr.biol.sci. – Ist. di Zool. “Federico Raffaele”, Viale dell’Università 32, 00161 ROMA (7), Italy

NIE, C. J. van; D.V.M. – Lab. of Anat. and Embryol., Free Univ., v.d. Boechorststr. 7, AMSTERDAM-Z., Netherlands

a Ontogenetic malformations of the heart. Sus scrofa, Bos taurus (Artiodactyla)
b Pathological development of heart and vessels. Same species as a
c Pathological development of bone. Sus scrofa (Artiodactyla)
d Teratology. (Mammalia), Homo sapiens (Primates)
e Development of the subneural apparatus. Rattus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

Regeneration of terminal nerves and motor end plates. Same species as e

NIELSEN, Cl.; Dr.phil. – Marine Biol. Lab., Univ. of Copenhagen, Strandpromadenen, 3000 HELSINGØR, Denmark


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 mesodermon formation, and phylogenetic implications. (lower Vertebrata incl. Reptilia) (with L.A. SUTASURYA and co-workers, Bandung, Indonesia)
b Analysis of dorso-ventral and cranio-caudal polarity in mesoderm induction. Ambystoma mexicanum (Urodela) (with E. C. BOTERENBRÖÖD and K. HARA)
c Origin of dorso-ventral polarity of the egg. Discoglossus pictus, Xenopus laevis (Anura) (with K. HARA and G. A. UBBÉLS)

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 Bryophyte differentiation. Gallus domesticus (Aves)


NIJWEIDE, P. J.; Dr. – Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands

a Calcium and strontium metabolism of embryonic calvarium periost. Gallus domesticus (Aves), Rattus spec. (Rodentia)
b Metabolism and hormonal sensitivity of cultured bone cells derived from embryonic calvaria. Gallus domesticus (Aves)
c Effects of gamma-irradiation on bone and cartilage. Mus musculus (Rodentia)

NIKIFIR, N. V.; Cand.biolog. – Vet. Inst., Nijegorodjky St., LENINGRAD, U.S.S.R.


NORDLING, S.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with J. J. WARTIOVAARA, L. O. SAXÉN, E. LEHTONEN, P. EBLOM and J. SALONEN)

NORRÅGREN, G.; Fil.kand. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

a Factors stimulating axon outgrowth in vitro

NÖTHIGER, R.; Dr.phil., Prof. – Zool.-vergl. Anat. Inst., Univ. Zürich, Känslergasse 16, 8006 ZÜRICH, Switzerland

a Sex determining genes studied at the cellular level. Drosophila melanogaster (Diptera)
b Genetic analysis of determination by means of induced mitotic recombination. Same species as a

NOULIN, G. – Lab. de Physiol. et Génét. des Crustacés, Univ. de Poitiers, 40 av. du Recteur Pineau, 86022 POITIERS Cedex, France

a Controles endocrines de la formation et de l'évolution des régénérants d'appendices locomoteurs. (Isopoda, Crustacea)
b Etude expérimentale de la production d'appendices surnuméraires. (Isopoda, Crustacea)

NOWAKOWNA-SEMBRAT, M.S.; Ph.D. – Inst. of Zool., Univ. of Wroclaw, 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, M.S.; Dr.rer.nat. – Biol. Inst. I (Zool.) der Univ., Katharinenstr. 20, 78 FREIBURG, B. R. D. (Germany)
a Function of the intersegmental region in pattern reconstitution (transplantation). Dysdercus intermedius (Heteroptera)
b Pattern formation in imaginal discs (combination experiments). Drosophila hydei (Diptera)

NUSS, M.S.; Dr.rer.nat. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WURZBURG, B. R. D. (Germany)

NÜSSLEIN-VOLHARD, M.C.; Dr.rer.nat. – Biol. Inst. I. (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B. R. D. (Germany)
a Pattern formation in early embryogenesis: maternal effect mutants (bicaudal etc.). Drosophila melanogaster (Diptera)


a Developmental histochemistry and electron microscopy of the autonomic ground plexus. Rattus rattus (Rodentia) (with B. CSILLIK, E. KNYIHÁR, M. GÁJO and G. KÁLMAN, Dept. of Anat.)

NYITRAY, M.S.; M. – Res. Inst. for Pharm. Chem., P.O.Box 82, 1325 BUDAPEST, Hungary

a Effect of clofibrate and phenobarbital Na administered to pregnant and lactating mothers on offspring: mortality, hepatochemealy; study of critical time and liver histology. Rattus norvegicus (Rodentia)


a Biochemistry of the transitions between the amoeboid and the flagellate stages. Naegleria gruberi (Rhizopoda)
b Cell surface membranes: changes after fertilization and during early development. Paracentrotus lividus (Echinidea); various spp. (Asciidea)

c Developmental biology. Various spp. (Mesozaos)

OGORZALEK, A.; Ph.D. – Inst. of Zool., Univ. of Wroclaw, ul.Sienkiewicza 21, 50-335 WROCŁAW, Poland

a Oogenesis (autoradiography). Drosophila melanogaster (Diptera)
b Cytogenesis of oogenesis. Nnpa cinerea, Ranatra linearis, Naucoris cinicoidea (Heteroptera)

OJEDA SAHAGUN, J. L.; Dr. Med., Prof. – Serv. de Embriol. Exper., Dept. de Anat., Fac. de Med., SANTANDER, Spain

a Biochemical and ultrastructural effects of barbituric compounds on the embryo. Gallus domesticus (Aves)
b Cell death in the developing central nervous system (stage 7-20 H.H.; electron and optic microscopy). Same species as a

OKKER-REITSMAN, Ms. G. H.; Ph.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands

a Steroid production of placenta and embryo of different ages. Mus musculus, Cavia porcellus (Rodentia)

OKSCH, A.; Dr.med., Prof. – Zentrum für Anat. und Cytobiol., Justus Liebig Univ., Alwug 123, 6300 GIENESS, B. R. D. (Germany)

a Development of neuroendocrine cell complexes (units) in the hypothalamus (neurohistology, electron microscopy, cytochemistry). (Aves, Mammalia)
b Development of photo-neuro-endocrine systems: retino-hypothalamic connections; deep hypothalamic photoreceptor, pineal photoreceptor organs. (Vertebrata)

OLIVERÉAU, Ms. M. M. A.; D.Sc. – Lab. de Physiol., Inst. Oceanographique, 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 Morphology and histology of the thyroid gland. (Chondrichthyes)

OPAS, Ms. J.; M.Sc. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przezmięcie 26/28, 20-927 WARSAWA, Poland
A.-G.; Development of the proximo-distal 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)

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

Pavic, Ms. D.; B.C. – Lab. of Molec. Biol. and Endocrinol., Inst. of Nucl. Sci. “Boris Kidrič”, P.O.Box 522, 11001 BEOGRAD, Yugoslavia

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

Prenatal diagnosis of genetic defects. Homo sapiens (Primates)

Malformation syndromes; delimitation and genetic counseling. Same species as a


effects of inhibitors and inducers on oocyte maturation. (Amphibia; Teleostei)

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)

Reinitiation of meiosis by protolytic enzymes: purification of proteases; early cytological and physiological changes. Same species as a
Tissue culture; embryo culture. Gallus domesticus (Aves)

PRELICEANU, M. O.; ing. - Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bv. Mihai Viteazul 24, 1900 TIMISOARA, Romania

d Development of cranial structures: comparative correlation between embryology and palaeontology. (Vertebrata)

PRESLICKOVÁ, Ms. M. - Inst. of Pharmacol., Czech. Acad. of Sci., Albertov 4, 120 00 PRAHA 2, Czechoslovakia

t 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 EH9 8AG, Scotland, U.K.


a Morphogenesis. Naegleria gruberi (Rhizopoda)


b Function of green pigments in young embryos. Linum usitatissimum (Linaceae)

b Embryogenesis in vitro and effect of growth substances and other factors on embryogenesis in vitro. Same species as a

PRIESTER, W. de; Ph.D. - Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaiserstr. 63, LEIDEN, Netherlands

a Electron microscopy of developmental stages. Calliphora erythrocephala (Diptera)

b Morphological and functional alterations of organelles during metamorphosis. Same species as a

PRIEUR, D. M.; Dr. 3e Cycle - Lab. de Zool., Univ. de Bretagne Occidentale, 6 av. le Gorceu, 29283 BREST Cedex, France

a Pathology of larvae reared in laboratories and hatcheries. Various spp. (Lamellibranchia)


a Synthesis, ontogeny, location, and immunochemistry of lens proteins in normal animals and mutants. Gallus domesticus (Aves), Mus musculus (Rodentia) (with R. M. CLAYTON, J. C. CAMPBELL and D. E. S. TRUMAN (Edinburgh), and D. S. McDEVITT (Philadelphia)

b Ultrastructure, immunology and cell properties of lenses with normal and genetically modified cell membranes. Same species as a (with R. M. CLAYTON, and D. I. de POMERAI)

c Differentiation and cell interactions in vitro of normal and abnormal ocular epithelium. Same species as a (with R. M. CLAYTON, and D. I. de POMERAI)

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

e In vitro analysis of teratogens. (with R. M. CLAYTON and D. I. de POMERAI)

PROPPER, A. Y.; Dr.Sc. - Lab. de Zool, et Embryol., Fac. des Sci. et des Techn. de Besançon, place Maréchal Leclerc, 25030 BESANÇON Cedex, France

a Mammary gland embryogenesis: I. 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)

PROTAŞF (PÔPPER), Ms. A. - Chaire de Biol.-Histol., Inst. de Méd. et Pharm., Fac. de Méd., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumania

a Corréléation 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 Dipertex concernant l’appareil génital de l’embryon, Gallus spec. (Aves)

PRZYBYŁLOK, Th.; Dr.reer.nat. - Inst. für Entw.physiol., Univ. zu Köln, Gyroßt. 17, 5 KÖLN 41, B.R.D. (Germany)

a Interaction of plant hormones in leaf morphogenesis. Antirrhinum majus (Scrophulariaceae)

b Biochemistry and analytical chemistry of plant hormones and their enzymes. Same species as a

PUCCI (MINAFRA), Ms. I. - Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

a Characterization of embryonic collagen and identification of its possible precursor. Paracentrotus lividus (Echinoidea)

PUCCIA, E.; D.Sc. - Ist. di Zool., Univ. di Palermo, Via Archirafi 18, 90123 PALERMO, Italy

a Isolation of actin in eggs. Ciona intestinalis (Ascidiae)

b Ribosomal RNA synthesis during oocytic regeneration. Hydroidea norwegica (Polychaeta)

c Cyclic nucleotides during embryonic development. Discoglossus pictus (Anura)

PUELLES-LOPEZ, L.; M.D. - Dept. of Anat., Fac. de Med., BADAJOZ, Spain

a Light and electron microscopy of neuroblast migrations. Gallus gallus (Aves)

b Postmitotic neuroblast differentiation and migration patterns in optic tectum, retina and diencephalon. Same species as a

c Guidance mechanism of motor neuroblast migrations. Same species as a


a In vitro myogenesis. Gallus domesticus (Aves)

b Control of cell proliferation. Same species as a
PYLIO, Miss I. V.; Cand. biol. - Dept. of Embryol., Leningrad State Univ., Mandeleevskiy St. 5, 199164 LENINGRAD, U.S.S.R.

a Electron microscopy of regeneration. Bolinopsis infundibuliform, Mertensia ovum (Ctenophora)

b Influence of starvation on organization of the organism and on regeneration. Criodrillus lacuum (Lumbricomonophora, Aeolosoma variegatum (Naidomorpha, Oligochaeta)

RADZIKOWSKI, St.; M.Sc. - Inst. of Zool., Warsaw Univ., Krakowskie Przedmieście 26/28, 00-927 WARSZAWA, Poland


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, Kiinamyllykatu 10, 20520 TURKU 52, Finland

a Biochemical characterization of enzymes appearing in early wound healing. Rattus spec., Cavia spec. (Rodentia) (with P. L. MAKINEN)

b Biochemistry of vascular response in experimental wound healing. Same species as a, and Homo sapiens (Primates) (with P. L. MAKINEN)

c Effect of ageing on the enzymes in wound healing. Same species as b

d Biological sequences in regeneration of subcutaneous connective tissue, using "Cellistic" method: cells in the exudate are harvested in cellulose sponge, inserted in silastic tubing (histology, histochemistry, biochemistry, immunofluorescence). Homo sapiens (Primates)

RAEVEN, M. B. J. M.; Drs. - Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol.Ctr., Kerklaan 30, HAREN (Gr.), Netherlands

a Biochemistry of wall formation. Schizophyllum commune (Basidionymycetes, Fungi)

RAFFIN, J. P.; Dr. - Equipe 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)


a Immunohistochemical studies on the reappearance of fetal enzyme active membrane antigens in chemically (DMAB) induced hepatomas. Rattus spec. (Rodentia)

RAGGIANTI, Ms. M.; Dr.Biol. - Inst. of Histol. and Embryol., Univ. of Pisa, Via A.Volta 4, 56100 PISA, Italy

a Mitotic and lambrush chromosmes in hybrids. Triturus spec. (Urodela)

b Electrophoretic studies in embryos and larvae. Same species as a

c Immunohistochemical characterization of yolk precursors in blood and their role in yolk sphere formation. Same species as a


a Embryogenesis. Testudo graeca (Chelonia)

RAINERI, Ms. M.; Dr.Biol. - Ist. di Anat. Comp., Univ. di Genova, Via Balbi 5, 16126 GENOVA, Italy

a Histochemistry of biogenic amines in embryos. (Cirripedia & Branchiopoda: Crustacea)

b Cholinesterase and phosphatase isozymes in embryos and larvae. Same species as a

c Yolk metabolism in embryos and larvae. Same species as a

RAJTOVA, Ms. V.; M.V.Dr. - Dept. of Normal Anat., Sch. of Vet. Med., Komenskeho 73, 041 81 KOŠICE, Czechoslovakia

a Morphogenesis of the chondrocranium. Ovis aries, Capra hircus (Artiodactyla)

b Effect of single exposure to ionizing radiation on limb and chondrocranium development. Ovis aries (Artiodactyla)

RAMADE, F.; Prof. - Lab. de Zool., Univ. de Paris XI (Paris-Sud), Centre d'Orsay, Bât.442, 91405 ORSAY Cedex, France

a Effects of pesticides, especially organochlorine insecticides, on neuroendocrine system and on development and maturation of reproductive organs. Locusta migratoria (Orthoptera), Leucophaea maderae (Blattodea)

RAMIREZ, F.; Dr.Biol. - Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

a Regulation of hemoglobin synthesis. Homo sapiens (Primates)

RAMSAY (KUNZ), Ms. Y. W.; Dr.phil. - Unit Devl. Biol., Zool. Dept., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland

a Ultrastructure and histochemistry during development of 1) retinal photoreceptors and choroid, and 2) the pseudobranch. Pocelina reticulata (Teleostei)

b Development of retinal photoreceptors under different light conditions. Same species as a

c Ultrastructure of the urine bladder in the embryo. Same species as a

RANSOM, R. J.; Ph.D. - Inst. für Biol. III, Univ. Freiburg, Schänzlestr. 9-11, 7800 FREIBURG, B.R.D. (Germany)

a Development of the head imaginal disc: clonal analysis. Drosophila melanogaster, D. hydei (Diptera)

b Computer modelling of developing systems, both in specific instances (e.g. of subject a), and as more general abstract models

RANZI, S.; Ph.D., Prof. - Lab. di Zool., Univ. di Milano, Via Celoria 10, 20133 MILANO, Italy

RASHEDI, M.; D.Méd. - Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, Rue Leo-Saignat, 33076 BORDEAUX Cedex, France

a Role of testis in differentiation of genital duct. Gallus gallus (Aves)
RATCLIFFE, N. A.; Ph.D. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.

RAUNICH, L.; Ph.D., M.D., Prof. – Ist. di Anat. Comp., Univ. di Ferrara, via L. Borsari 46, 44100 FERRARA, Italy

a Experiments on skull morphogenesis. Rana esculenta, Bufo bufo (Anura)

RAVEN, Chr. P.; Ph.D., Prof. (Emer.) – Rembrandtlaan 19, DOORN, Netherlands

a Computer simulation of embryonic development. (with J. J. BEZEM, Zool. Lab., State Univ. of Utrecht)

RAYNAUD, A.; Dr.és Sci. – Serv. d’Embryol. Expér., Inst. Pasteur, 20 rue des Moulins, 95110 PAVIA, Italy

a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry).

b Rattus rattus (Rodentia)

b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)

REGARD, Ms. E.– Lab. de Biol.-Vertébr., Univ. Paris XI (Paris-Sud), Bât.441, 91405 ORSAY, France

RELEXSANS, J.C.; D.Sc. – Lab. de Zool. A, Inst. de Biol. Anim., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France

a Sexual differentiation in hermaphrodites. Eisenia spec. (Oligochaeta)

b Regeneration. Eisenia spec. (Oligochaeta), Salamandra spec., Triturus spec. (Urodela), Mus musculus (Rodentia)

REMBISZEWSKA, Ms. A.; B.Sc. – Dept. of Pathomorphol., Inst. of Obstet. and Gynecol., Med. School Warsaw, ul.Karowa 2, 00-315 WARSAWA, Poland

a Mitotic activity of thymocytes and number of PAS-positive reticular cells in thymus with reference to birth weight, gestational age, postnatal period of life and associated pathology of foetus and newborn. Homo sapiens (Primates)

REMBOLD, H.; Dr rer.nat., Prof. – Dept. of Insect Biochem., Max-Planck-Instit. für Biochem., 8033 MARTINSRIED b.München, B.R.D. (Germany)

a Isolation of the determining principle responsible for queen bee establishment from royal jelly and from pupae and adults. Apis mellifera (Hymenoptera)

b Biochemical aspects of queen determination; comparative studies on endocrinology, enzyme activities, mitochondria, protein and nucleic acid synthesis in queens and workers. Same species as a

c Biochemistry and histology of juvenile hormone action in caste formation. Same species as a

d Biochemical function of biopterin in development; metabolic studies with C14-pteridines. Same species as a


RESSOUCHESE (SELMES), Ms. A. P.; Dr.biol.anim. – Lab. de Zool. Exp., Univ. de Bordeaux I, av. des Facultés, 33405 TALENCE, France

a Embryonic development. Pisodose spec. (Coleoptera)

b Ultrastructure of intracellular bacteroids. Same species as a

REUVENI, O.; Ph.D. – Agric. Res. Org., Volcani Ctr., P.O.Box 6, BET-DAGAN, Israel

temporarily: Bot. Labs., Univ. of Leicester, Adrian Bldg., University Rd., LEICESTER LE1 7RH, England

a Asexual reproduction by aseptic techniques. Phoenix dactylifera (Palmae), Musa cavendish (Musaceae), Persea americana (Lauraceae)

b The role of atmosphere in tissue and cell cultures

REVERBERI, G.; D.Sc., Prof. – Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy

RÉVESZ-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 Études sur les relations entre soma et gérme. (Aves)

REYSS-BRION (DUCREAU), Ms. M.; D.Sc. – Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49 bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France

da Differenciation sexuelle; inversion du sexe après ovariectomie. Gallus gallus, Coturnix c. japonica (Aves)

RIBBERT, D.; Dr.rer.nat. – Zoo. Inst. der Univ., Badestr. 9, 44 MÜNSTER/Westf., B.R.D. (Germany)

a Karyology and RNA spectra in egg follicle development (radio-isotopes, electrophoresis). Calliphora erythrocephala (Diptera)

b Chromosome cytology of germ line cells (polytene chromosomes). Same species as a

c Chromosome cytology of developing macrochaetae (trichogene cells). (Calliphorinae; Muscidae, Diptera)

d Disproportionate DNA replication in nurse cell nuclei of meroistic ovaries (hybridization technique). Same species as c

RICHARD-MERCIER, Ms. N. – Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât. A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France
Changes of mitotic cycle in early embryogenesis as related to changes in ionic concentrations and intercellular communication. Missgurnus fossilis, Salmo gairdneri, Cynipus carpio (Teleostei), Ambystoma mexicanum (Urodela)

ROUSSEAU-MERCK, Ms. M. F.; Dr. 3e Cycle – Groupe de Rech. de Pathol. Pédiat., INSERM U77, Hôpital Necker Enfants Malades, 149 rue de Sèvres, 75730 PARIS Cedex 15, France

La différenciation et les potentialités de différenciation du néphroblastome, Homo sapiens (Primates): 1. associations in vitro avec des organes embryonnaires de Gallus domesticus (Aves) ou Mus musculus (Rodentia) inducteurs de l’organogénèse rénale normale; 2. mise en évidence d’antigènes particuliers aux tubules proximaux rénaux

ROUSSEL, C.; Dr.Méd. – Lab. d’Embryol., U.E.R. Bioméd., 45 rue des Sts.Pères, 75270 PARIS Cedex 06, France

a Mode d’action de certaines substances tératogènes (Triton WR 1339). (Mammalia)
b Mécanismes d’action de substances embryotoxiques (transfert d’œufs). (Rodentia) (avec L. MERCIER)

ROUSSEV, G. K.; Dr., Prof. – Med. Res. Inst., Ovtcha Koupel, SOFIA 18, Bulgaria

ROUX, Ch.; Dr.Méd., Prof. – Lab. d’Embryol. et de Cytogénétique, Fac. de Méd. Saint-Antoine, 27 rue Chalgrin, 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 11, Spain

a Development of neural retina and lens. Gallus domesticus (Aves)
b Development of the ureter
c Experiments on the development of the joints. Same species as a


a Electron microscopy of egg membrane structure. (Teleostei)

RUCH, J. V.; Dr.Méd., D.Sc., Prof. – Inst. d’Embryol., Univ. de Strasbourg, 4 rue Kirschleger, 67085 STRASBOURG Cedex, France

a Epithelial-mesenchymal interactions, mitosis, and differentiation in teeth. Mus musculus (Rodentia)

RUNN, P.; Fil.kand. – Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden

a Morphological aberrations in embryos exposed to pollutants. (Teleostei)

RUSSO-CAIA, S.; Prof. – II. Chair of Histol. and Embryol., Fac. of Sci., Univ. of Roma, Città Universitaria, 00100 ROMA, Italy

a Cytochemistry and autoradiography of mesonephros regression. (Aves: Mammalia)
b Mechanism of metamorphosis: histolysis, especially lysosomal enzymes. Musca domestica (Diptera)
c Ultrastructural observations on the presence of juxtaglomerular cells in the embryonic kidney. Same species as a
d Cytochemistry and autoradiography of oogenesis, especially nucleic acid metabolism in nurse cells. (Diptera; Coleoptera)
cyofmesenchymal organs. (lower Vertebrata)

RUSU, Ms. V. M. – Biol. Res. Ctr., Str. Republicii No. 48, 3400 CLUJ-Napoca, Rumunia

a Influence of unusual incubation temperature on development of antibody forming cells. Gallus spec. (Aves)

RYABININA, Ms. Z. A.; Cand.biol.sci. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsuruha St. 3, MOSCOW 117469, U.S.S.R.

a Regeneration of inner organs. Mus musculus, Rattus norvegicus (Rodentia)


a Histochemistry and histology of an impulse conducting system in the pleuros. Pseammechinus miliaris (Echinoidae)

RYCZKOWSKI, M.; Doc., Dr. – Lab. of Plant Physiol., Inst. of Molec. Biol., Jagellonian Univ., Grodzka 53, 31-001 KRAKÓW, Poland

a Respiration rate (Q02) of the developing fruit, ovule, embryo, coat and endosperm tissue in different environments. (Angiosperms)
b Quantitative and qualitative changes of the pigments in the developing embryo. (Angiosperms)
c Concentration gradients of low molecular compounds in the developing ovule. (Angiosperms)

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)

RYLAND, J. S.; Ph.D. – Dept. of Zool., Univ. Coll. of Swansea, Singleton Park, SWANSEA, Glamorgan, Wales, U.K.


a Movements of pigment and cytoplasm after fertilization. (Anura) (with G. A. UBBELS, Utrecht)
b Cytokinesis of cleaving eggs. (Amphibia)
c Teratogenic effects of insecticides. (Anura)
SAAG, P. T. van der; Ph.D. — Hubrecht Lab. (Intern. Embryol. Inst.), Uppsalalaan 8, 3584 CT UTRECHT, Netherlands
a Biosynthesis of soluble proteins in early development (isoelectric focusing, autoradiography). (Amphibia) (with S. K. BRAHMA, State Univ. of Utrecht)
b Regulation of the cell cycle and its significance for development and differentiation: the role of changes in membrane properties and structure, ion and cyclic nucleotide metabolism. Neuroblastoma cells, Mus musculus (Rodentia) (with J. G. BLUEMINK, S. W. de LAAT, W. H. MOOLE-NAAR and S. A. LEEMANS)

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 (Ascidacea)

SAPELLI, B.; Dr. — Inst. of Zool., Univ. of Bologna, Via S. Giacomo 9, 40126 BOLOGNA, Italy
a Oogenesis in parthenogenetic and amphigonic eggs. Daphnia spec. (Cladocera, Crustacea)
b Regeneration and origin of germ cells. Mercierella enigmatica (Serpulidae, Polychaeta)
c Origin of germ cells and sex differentiation. Sphaerium corneum (Lamellibranchia), Gonidiscus rotundatus (Gastropoda)

SACARRAO, G. da FONSECA; D.Sc., Prof. — Fac. de Ciênc., Museu Bocage, Ruada Escola Politécnica, LISBOA-2, Portugal
a no work on developmental biology in progress

ŠAFANDA, J.; ing.chem. — Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEŇ, Czechoslovakia
a Characteristics of the transport of 4-aminobutyric acid in developing brain. Rattus spec. (Rodentia)

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

SALA, M.; Dr.biol., Prof. — Ist. di Biol. Anim., Univ. di Padova, Via Loredan 10, 35100 PADOVA, Italy
a Embryonic and adult hemoglobin. (Anura; Urodela)
b Developmental variations in parabiologic twins. Rana dalmatina, R. esculenta (Anura)
c Molecular aspects of neural induction. (Urodela)
d Effect of some drugs on early embryonic development. (Amphibia)

a Role of chemical intercellular interactions in the regulation of the rate of cell multiplication and intracellular synthesis, studied in cell cultures and in vivo. Gallus domesticus (Aves), Rattus norvegicus, Mus musculus (Rodentia)
b Cyto genetics of aged persons. Homo sapiens (Primates)

SALAUÍN, 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 galus (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)

a The part played by impulsive activity in the late stage of differentiation of fast and slow skeletal muscle (electronic stimulators; physiology, biochemistry, and histochemistry). Oryctolagus cuniculus (Lagomorpha)

SALONEN, J. E. K.; B.M. — Lab. of Exp. Embryol., Hl.Depart. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with L. O. SAXÉN, J. J. WARTIOVAARA, E. LEHTONEN, S. NORDLING, and P. EKBLOM)

SALVADOR, G. F.; Dr.-Ing. — Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Control of delta-amino-lactic acid synthesis during chloro plast morphogenesis. Euglena gracilis (Euglenophyceae)

SALVATORELLI, G.; Ph.D., Prof. — Ist. di Anat. Comp., Univ. di Ferrara, via L. Borsari 46, 44100 FERRARA, Italy
a Factors in foetal erythropoiesis. Gallus domesticus (Aves)
b Erythropoiesis and leucopoiesis during metamorphosis. Bufo bufo (Anura)
c Embryonic and foetal erythropoiesis. Cavia porcellus (Rodentia)
d Purification and chemical identification of erythropoietic factor in embryonic liver extracts. Same species as a

SALZGEBER, Ms. B.; D.Sc. — Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle Gabrielle, 94130 NOGENT-sur-MARNE, France
a Étude des effets tératogènes (malformations de membres) obtenus 1) par l’hyper azote (chlor-ethylamine), 2) par la thalidomide (phthalimido-gutarilamide). Gallus spec. (Aves)
b Recherches sur la génèse des malformations de membres. Gallus domesticus (Aves)

SAMARUT, J., Dr.spéc. — Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 Novembre 1918, 69621 VILLEURBANNE, France
a Development of haemo poetic stem cells. Gallus domesticus (Aves)
a Early stages of embryogenesis: epigenetics of segment pattern, blastokinesis. Euscelis plebejus (Cicadina, Homoptera), (Chironomidae, Diptera)
b Developmental physiology of embryonic mycetomes. Euscelis plebejus and other spp. (Cicadina, Homoptera)

SANDOR, S.; Dr.med. — Lab. of Embryol., Ctr. of Hyg. and Publ. Health, Bw. Mihai Viteazul 24, 1900 TIMISOARA, Rumania
a Experimental teratology and teratological screening. Rattus norvegicus, Mus musculus (Rodentia)
b Development of embryonic axial organs (somitogenesis). Gallus domesticus (Aves)

SANTO, M.; M.Sc. — Lab. de Morphogen. Végét., Univ.d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
a Control of leaf growth and of leaf sensibility to various inhibitors according to developmental stage. Gleditsia triacanthos (Leguminosae)

SANTAMARIA, P.; Ph.D. — Biol. Inst. I (Zool.), Albertstr. 21a, 7800 FREIBURG, B.R.D. (Germany)
a Analysis of wing development in scolopendrous insects by means of somatic recombination: allele homozygosity at different times of development, and clonal analysis of the mutant wing. Drosophila melanogaster (Diptera)

SANFO, S.; M.Sc. — Lab. de Morphogen. Végét., Univ.d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France
a Analysis of embryonic development by means of nuclear transplantation. Drosophila melanogaster, D. simulans, D. erecta, D. subobscura (Diptera)

SANTORO, SANYAL, SAUER, SAUNDERS, SAUSSEY, SAX£N

SANTORO, M.; Ph.D. — Ist. di Biol. Gen., Univ. di Roma, Policlinico Umberto I, 00100 ROMA, Italy
a Effects of gravity acceleration during growth of primary root. Vicia faba (Papilionaceae)
b Effects of l-asparaginase, strychnin, and veratrum during embryonic development. Rana esculenta, Bufo vulgaris (Anura)
c Effect of food dyes on embryos. Xenopus laevis (Anura)

SANYAL, S.; Ph.D. — Dept. of Anat., Erasmus Univ., Postbox 1738, ROTTERDAM 3002, Netherlands

SAUER, H. W.; Dr rer. nat., Prof. — Zool. Inst. der Univ., Röntgenring 10, 8700 WURZBURG, B.R.D. (Germany)
a Activities of isolated and endogenous nuclear RNA polymerases in relation to differential transcription in the developmental cycle.Physarum polycephalum (Eumycetozoa)
b Replication-transcription coupling in the mitotic cycle. Same species as a

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

SAUSSEY, M. D.Sc., Prof. — Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France


SAUSSEY, M. D.Sc., Prof. — Lab. d'Embryol., U.E.R. de Sci., Univ. de Caen, 14032 CAEN, France
a Laboratoire de genèse et diapauser. Alulobophora icerita, A. spp. (Oligochaeta)


SAXÉN, L. O.; M.D., Phillic., Prof. — Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with J. J. WARTIOVAARA, E. LEHTONEN, S. NÖRDLING, P. EKBLOM and J. SALONEN)


a Experiments on the differentiation of cutaneous sensory corpuses. 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, M. V.; Cand.biolog. — Phenogenet. Lab., Inst. of Gen. Genet., Acad. of Sci. of the USSR, Profsoyuizna St. 7 (I) MOSCOW 117312, U.S.S.R.
a Developmental study of mutant gene effects on cell proliferation and differentiation. Mus domesticus (Rodentia)

SCARANO, F. — Lab. Intern. di Genet. e Biofis., Via G. Marconi 10, 80125 NAPOLI, Italy

a Gene physiology, Y chromosome. Drosophila spp. (Diptera)
b Genetic regulation of differentiation; male germ line cells. Drosophila hydei, D. neohydei (Diptera)
c Magnification of ribosomal RNA genes in the Y chromosome. Drosophila hydei (Diptera)


SCHEDL, P.; Ph.D. — Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland
a Determination of imaginal discs using Drosophila/Col E1 plasmid hybrids. Drosophila melanogaster (Diptera)

SCHEIB (PFE hugers), M. 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 ovarioctomy. Gallus domesticus, Coturnix c. japonica (Aves)
Radioimmunoassay of in vitro steroid biosynthesis by embryonic gonads; experimental control. Same species as a


a Changes in the developmental-physiological competence of fat body nuclei during postembryonic development; influence of ecdysteroids and juvenile hormone on the regulation of transcription; changes in gene expression during larval development. Calliphora erythrocephala (Diptera)

SCHERPFT, J. F.; M.D. — Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands

da Development and early stages of calcification of the diaphyseal bone collar of radii in 14-18-day-old embryos (electron microscopy). Mus musculus (Rodentia)

SCHERINI, Ms. E. — Inst. of Histol., Embryol. and Anthropol., Univ. of Pavia, Piazza Botta 10, 27100 PAVIA, Italy

a Maternal malnutrition as a cause of placental insufficiency and of abnormal fetal development, especially cerebellar pre- and post-natal histogenesis (qualitative and quantitative histochemistry). Rattus rattus (Rodentia)

b Normal and pathological spermatogenesis (quantitative cytochemistry). (Mammalia)

SCHERRER, K.; Dr., Prof. — Inst. de Rech. en Biol. Mol. du C.N.R.S., Univ. Paris VII, 2 place Jussieu (Tour 43), 75221 PARIS Cedex 05, France

a Transcription of the globin genes in early development. Gallus domesticus (Aves)

b Abortive transcription of globin genes in erythroleukaemic cells. Same species as a
c Gene transcription in oocytes. Gallus domesticus, Coturnix c. japonica (Aves)

SCHIEBLER, Th. H.; Dr.med., Prof. — Dept. of Anat., Univ. of Würzburg, Koellikerstr. 6, 87 WÜRZBURG, B.R.D. (Germany)

a Chemo-differentiation of different parts of the brain (e.g. nucleus ruber) by enzyme-histochemical and experimental methods. Rattus norvegicus (Rodentia)

b Development of the terminal vascular bed of the heart. Rattus norvegicus (Rodentia)

c Electron microscopy of the full-term placenta. Homo sapiens (Primates)

SCHILIT, J.; D.Sc. — Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France

a Role of nervous system in pharynx induction. Dugesia lugubris (Turbellaria)

b Roles of territory and nervous system in regeneration. Same species as a

SCHLOOT, W.; Dr.renat., Prof. — Inst. für Genet. und Humangenet., Univ. Bremen, Achterstr. NW2, 2800 BREMEN 33, B.R.D. (Germany)

da Developmental genetics of various enzymes; prenatal diagnosis; genetic counselling. Homo sapiens (Primates)
b Influence of psychotropic drugs and metabolism in embryogenesis. Oryctolagus cuniculus (Lagomorpha)

SCHMID, V. S.; Dr.phil. — Zool.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZURICH, Switzerland

da Differentiation potentialities of cells. (Hydrozoa)

b Tissue stability and metaplasia in the development of medusae bds. Podocoryne carnea (Hydrozoa)
c Factors controlling regeneration in medusae. (Hydrozoa)


a Substructure of chromatin by enzyme degradation techniques. Ephestia kuehniella and other spp. (Lepidoptera)

b DNA and nuclear RNA in chromatin fractions. Same species as a


a Embryology. Camelus bacterianus (Artiodactyla)
b Factors of ontogeny; evolution. Placentalia (Mammalia)

SCHMIDT, G. H.; Dr.renat., Prof. — Inst. für Pflanzenkrankh. und Pflanzenschutz, Tech. Univ., Herrenhäuser Str. 2, 3 HANNOVER-Herrenhausen, B.R.D. (Germany)

a Postembryonic development. several spp. (Orthoptera), Formica polyctena, F. pratensis (Hymenoptera) and others

b Caste determination. Formica spec. and others (Fornicoidea, Hymenoptera)

SCHNEDTER, W.; Dr.renat. — 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 Embryogenese de mutants lethaux. Drosophila spec. (Diptera)

SCHOPFER, P.; Dr.renat., Prof. — Biol. Inst.II der Univ., Lehrst. für Bot., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)

a Physiological and molecular study of the control mechanisms involved in photomorphogenesis of seedlings. Sinapis alba (Cruciferae)

Morphogenese du crâne et induction céphalique. Gallus gallus (Aves)

Action des alcaloïdes de liliacées sur la morphogenèse de la tête. Gallus gallus (Aves), Mus musculus (Rodentia)

Lésions par substances toxiques. Espèces comme b


Interaction processes after fusion of different strains. Physarum polyccephalum (Myxomycetes)

SCHROEDER, H. E.: Dr.med.dent., Prof. – Zahnärztl. Inst., Abt. Örale Strukturbiol., Univ. Zürich, Plattenstr. 11, 8028 ZURICH, Switzerland

Development of oral tissues, especially tooth papilla, pulp and mucous membrane (microscopy, stereology, 3-dimensional reconstructions). Homo sapiens (Primates)

SCHULTHEISS, H.; Dr. – Zool. Inst.H., Univ. (T.H.) Kaiserstr. 12, Postfach 6380, 75 KARLSRUHE 1, B.R.D. (Germany)

Regulation of nitrogen metabolism by hormones during metamorphosis. Ambystoma spec. (Urodela), Xenopus laevis (Anura)

Regulation of the skin diffusional permeability to water by hormones during metamorphosis. Same species as a

C. Hormonal regulation of thyroid activity. Ambystoma mexicanum (Urodela)

SCHUMACHER, G. H.; Dr.sc.med., Dr.med.dent., Prof. – Anat. Inst., Wilhelm-Pieck Univ., Gertrudenstr. 9, 25 ROSTOCK 1, D.D.R. (Germany)


Fate map of the genital disc in gynandromorphs. Drosophila melanogaster (Diptera)

Larval hypoderm in gynandromorphs. Same species as a

SCHÜRMANN, F. W.; Dr. – Lehrst. Expser. Morphol., Zool. Inst. der Univ. zu Köln, Weyertal 119, 5000 KOLN 41, B.R.D. (Germany)

Metamorphosis of the brain: growth of mushroom bodies, synaptogenesis. Apis mellifera (Hymenoptera)

Regeneration of motor neurons and sensory cells. Acheta domesticus, Gryllus campestris (Orthoptera)

SCHWARTZ, V.; Dr.rer.nat., Prof. – Wolfgang Stock Str. 2, 7400 TÜRINGEN, B.R.D. (Germany)

Development of macronuclear anlagen. Paramecium bursaria (Ciliata)

SCHWEGER, H. G.; Dr.med., Prof. – Max-Planck-Inst. für Zellbiol., Anton-Dohrn-Weg, Postfach 1009, 294 WILHELMSHAVEN, B.R.D. (Germany)

Biochemical aspects of nucleo-cyttoplasmic interrelationships. Acetabularia spec. (Chlorophyceae)

Autonomy of chloroplasts. (Algae)

RNA synthesis in nucleate and anucleate cells. (Algae)

Cooperation between different subcellular components in morphogenesis. (Algae)

SCHWOCHAU, M. E.; Dr.rer.nat., Prof. – Inst. für Allgem. Biol., Univ. Düsseldorf, Universitätstr. 1, 4000 DUSSELDORF, B.R.D. (Germany)

Molecular biology and genetics of the Y-chromosome. Drosophila spp. (Diptera)

SCONZIO, Ms. G. – Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

RNA synthesis in early development. Paracentrotus lividus (Echinoidæa)

Giant RNA in the cytoplasm of embryos. Same species as a

“Capping” of RNA. Same species as a

SCOPPELLITI, R.; Dr.Biol.Sci. – Ist. di Zool. “F. Raffaele”, Univ. di Roma, Viale dell’Università 32, 00161 ROMA, Italy

SCRIBA, M. E. L.; Ph.D., Prof. – Inst. für Zool., Rhein.-Westf.-Techn. Hochschule, Koppernikusstr. 16, 51 AACHEN, B.R.D. (Germany)

Developmental abnormalities caused by lethal factors. Drosophila melanogaster (Diptera)

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

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

Biology of the trophoblast. Same species as a

Early embryonic development. Mus musculus (Rodentia)


Sporulation characteristics in wild-type and antibiotic-negative mutants. Bacillus brevis (Bacteria)

SEDLAČEK, J.; M.D., Ph.D. – Res. Lab. of Psychiat., Div. of Embryophysioll. CNS, Charles Univ., Albertov 5, 12800 Praha 2, Czechoslovakia

Development of spontaneous and evoked phasic activity and of central excitation and inhibition in the central nervous system in the prenatal period. (Aves)

Neuropsychology of embryonic spontaneous motility. (Aves)

SEICHERT, V.; M.Dr. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 Praha 2, Czechoslovakia

Experimental analysis of limb formation. Gallus domesticus (Aves)

SEIDEL, F.; Dr.phil., Prof. (Emer.) – Zool. Inst. der Univ., Kettnerbaaz 63, 355 MARBURG/Lahn, W.Germany

SEKERIS, C. E.; Ph.D., Prof. – Inst. of Cell Res., German Canc. Res. Ctr., Im Neuenheimer Feld 280, Postfach 101949, 69 HEIDELBERG 1, B.R.D. (Germany)
Transcription of chromatin from epidermis by insect DNA-dependent RNA polymerases. Calliphora erythrocephala (Diptera).

Translation of mRNA in an homologous in vitro system. Same species as a

In vivo and in vitro synthesis of calliphorin and drosophilin: regulation of specific mRNA levels. (Diptera)

SELLENS, M. H.; Ph.D. – Dept. of Pathol., Univ. of Bristol, University Walk, BRISTOL BS8 1TD, England

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

Biology of the trophoblast. Same species as a

Early embryonic development. Mus musculus (Rodentia)


Experimental teratology. (Mammalia)

Experimental production of chimaeras by tissue transplantation. Same species as a

Alpha-fetoproteins. Homo sapiens (Primates)

d Genetics and aetiology of neural tube defects in the curly-tail mutant. Mus musculus (Rodentia)


Ultrastuctural and experimental studies of cleavage and morphogenesis. Triturus alpestris (Urodela), Xenopus laevis (Anura)

SEMBRAT, K.; Ph.D., D.Sc., Prof. (Emer.) – Inst. of Zool., Univ. of Wroclaw, ul.Sienkiewicza 21, 50-335 WROCŁAW, Poland

Cytology and cytochemistry of partial metamorphosis. Triturus spec. (Urodela)

Cytology and cytochemistry of gametogenesis. Embeltonia pallida (Opisthobranchia, Gastropoda)

SENATORI, Ms. O.; Dr. biol.sci. – Ist. di Zool. “F. Raffaele”, Univ. di Roma, Viale dell’Università 32, 00161 ROMA, Italy

SENGEL, Ph.; D.Sc., Prof. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, Centre de Tri, 38041 GRENOBLE, France

Mechanisms of feather pattern development. Gallus domesticus (Aves)

Ultrastructure of skin development and feather keratins. Same species as a

Behaviour of cultured embryonic dermal and epidermal cells. Same species as a

Scanning electron microscopy of dermal and epidermal cell morphology and contacts during feather development. Same species as a

SETEIN, P.; Dr.méd., D.Sc., Prof. – Lab. d’Histol. et d’Embryol., Univ. de Montpellier, 2 rue Ecole de Médecine, 34060 MONTPELLIER Cedex, France

SERMAN, D.; D.Sc. – Inst. of Biol., Fac. of Med., Univ. of Zagreb, Šalata 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia

Fetal proteins in differentiation. Rattus norvegicus (Rodentia) (with N. ŠKREB)

Protein patterns in embryo-derived teratocarcinomas and in host serum (polyacrylamide electrophoresis). Mus musculus (Rodentia)

Alphafetoprotein, lactate dehydrogenase, cytosol and chromosomal proteins during intrauterine development. Homo sapiens (Primates)

SERRANO (DI DINO), Ms. G.; Dr.ren.nat. – Ist. di Anat. Umana Norm., Univ. di Catania, Via Biblioteca 4, 95124 CATANIA, Italy

Development of the ciliary ganglion in normal and anencephalic embryos. Homo sapiens (Primates)

SERRI, F.; M.D., Prof. – Dept. of Dermatol., Univ. of Pavia, Policlinico S. Matteo – P. le Golgi, 27100 PAVIA, Italy

Development of the hair. Homo sapiens (Primates)


ŠEVCENKO, Ms. G.; MUDr. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia

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)

Relations between electrolyte milieu and gene activities in giant chromosomes; electrophysiology, especially ion sensitive electrodes. Chironomus thummi (Diptera)


Morphogenetic effects of follicle-stimulating hormone. Gallus domesticus (Aves) (with M. S. LAKSHMI)

Biochemical and biophysical characterization of the cell surface using natural pH gradients. (with M. S. LAKSHMI)

Epigenetic mechanisms and paraneoplastic phenomena. (with M. S. LAKSHMI)


Role of serotonin in intercellular connections during cleavage divisions. Scaphechinus mirabilis (Echinoidea) (with G. A. BUZNIKOV)

a Production of limb deformities and growth retardation in the fetus with neuromuscular blocking agents. Rattus norvegicus (Rodentia)

b Role of the amniotic fluid α fetoprotein in the prenatal diagnosis of neural tube defects. Homo sapiens (Primates)


SIDOROVA, Ms. V. F.; Dr. Biol. – Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsrupu St. 3, MOSCOW 117469, U.S.S.R.

growth and regeneration of the inner organs and their regulation. Oryctolagus cuniculus (Lagomorpha), Mus musculus, Rattus norvegicus, Mesocricetus auratus (Rodentia)

SIEBERS, A. M.; Drs. – Bot. Lab., State Univ., Nuenensteeg 3, LEIDEN, Netherlands

c Composition of the cell wall (chemical analysis, enzymatic degradation) in relation to development. Schizphyllum commune (Basidiomycetes, Fungi)

Siewing, R.; o.Prof. – I. Zool. Inst. der Univ. Erlangen-Nürnberg, Universitätsstr. 19, 852 ERLANGEN, B.R.D. (Germany)

d Ultrastructure of brain and retina development. Rattus spec. (Rodentia)

e Development of monoamine containing neurons. Same species as a


a Longitudinal study of dorsal root ganglion development in the chick 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

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, Unioakteru 44, 00170 HELSINKI 17, Finland

a Effect of light and plant hormones on development. Sphagnum fimbriatum, S. majus (Musci)

b Effect of heavy metals, arsenate and fluoride on growth and fine structure. Sphagnum nemoreum, S. fimbriatum (Musci)

SIMPSON, Ms. P.; B.Sc. (Hons.) – Centre de Génét. Moléc., C.N.R.S., 91190 GIF-sur-YVETTE, France

a Temperature-sensitive mutations blocking clone development in imaginal discs, including t.s. cell lethals and mutations affecting the rate of cell division. Drosophila melanogaster (Diptera)

SINDEN, R. E.; Ph.D. – Dept. of Zool. and Appl. Entomol., Imperial Coll., Field Station, Silwood Park, ASCOT, Berks. SL5 7DE, England

a Cytology of gametogenesis and invasion mechanisms. Plasmodium spp. (Sporozoa)

SISTO DANÉO, Ms. L. – Dept. of Human Anat., Univ. of Torino, Corso M.d′Azeglio 52, 10126 TORINO, Italy

a Early neuro-muscular contacts “in vivo” and “in vitro”. Gallus domesticus (Aves)


a Effect of gonadotropins and changes in the germinal vesicle and in the oocyte cytoplasm during maturation. (Acipenseridae, Chondrostei; Amphibia) (with T. B. AISENSTADT)

b Role of karyoplasm in the formation of the mature egg properties. Acipenser stellatus (Chondrostei), Misgurnus fossilis (Teleostei), Rana temporaria, Bufo spec. (Amura)

Mechanism of action of gonadotropic hormones. Same species as b

SKREB, 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)

SLABY, O.; D.Sc., Prof. – Inst. of Histol. and Embryol., Charles Univ., Karlovarska 48, 30167 PLZEŇ, Czechoslovakia

a Development of the nasal capsule from an evolutionary standpoint. (Amniota, incl. Homo sapiens)

SLÁDEČEK, F.; RNDr., D.Sc., Prof. – Dept. of Exp. Zool., Charles Univ., Viničná 7, 12844 PRAHA 2, Czechoslovakia

a Transplantation of nuclei in relation to nucleic acids and proteins. (Amphibia) (with J. NEĐVIĐEK and A. ROMANOVSKÝ)
The development and teratology of the branchial region. (Amniota, incl. Homo sapiens)

The Regulation of Neurohormonal Stimulation of Development. Biochemistry - Teratomas

Early embryonic development. Mus musculus (Rodentia)

SMITH, J. L.; B.Sc. - Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O.Box 147, LIVERPOOL L69 3BX, England

Factors affecting aggregation of early embryonic cells (electron microscopy). Xenopus laevis (Anura)

SOBOTKA, P.; M.D.; C.Sc. - Inst. of Pathophysiol., Charles Univ., Lidická 1, 306 05 PLZEŇ, Czechoslovakia

Influence of amino acids, newly synthesized drugs, and other substances on electrogenesis of the central nervous system during early postnatal development. Rattus norvegicus (Rodentia)

SOKARJO, B.; Dr. - Imm. Inst., Rijksstraatweg 6, NIEUWERSLUIS, Netherlands

SOLA, Ms. L. - Inst. of Histol. and Embryol., Univ. of Pisa, Via A. Volta 4, 56100 PISA, Italy

Chromosomal aspects of sex inversion. (Sparidae, Teleostei)


Stimulation of the pure pigmented epithelium of adults into retina by means of agents from newly differentiated retina. (Cyprinidae, Teleostei), Oryctolagus cuniculus (Lagomorpha), Mus musculus (with G. V. LOPASHOV)


Immunological aspects of insulin therapy in diabetic pregnancies. Cavia porcellus (Rodentia), Homo sapiens (Primates)

SOLTYŃSKA, Ms. M.; Dr. - Dept. of Cytol., Zool. Inst., Warsaw Univ., Krak.Przedmieście 26/28, 00-927/1 WARSZAWA, Poland

Cell differentiation in development. (Trematoda)

SOYEZ, D.; D.E.A. - Lab. Sex. et Reprod. des Invertébr., Univ. Paris VI (P. et M. Curie), Bât.A, 7e étage, 4 place Jussieu, 75230 PARIS Cedex 05, France

Biochemical characterization of a molt-inhibiting substance from eyestalks. Pandalus jordani (Decapoda, Crustacea), Orchestia gammarellus (Amphipoda, Crustacea)

SPINELLI, G.; Prof. - Ist. di Anat. Comp., Univ. di Palermo, Via Archirafi 20, 90123 PALERMO, Italy

Regulation of transcription of histone genes at different stages of development. Paracentrotus lividus (Echinodermata)

SPORNITZ, U. M. - Anat. Inst. der Univ., Pestalozzistr. 20, 4056 BASEL, Switzerland

Oogenesis and early degeneration of eggs. (Amphibia)

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, LEIDEN, Netherlands
Differentiation and development of imaginal discs: 1. histochemistry; 2. pattern formation. Calliphora erythrocephala, Drosophila melanogaster (Diptera)

SREBO, Z.; M.D.; Ph.D., Prof. – Dept. of Biol. and Embryol., Acad. of Med., ul.Kopernika 7, 31-034 KRAKOW, Poland

a Neurohormonal control of regeneration. Triturus vulgaris, T. alpestris (Urodela)

STABELLINI, Ms. G. – Inst. of Histol. and Gen. Embryol., Univ. of Ferrara, Via Fossato di Mortara 64, 44100 FERRARA, Italy

a Epithelio-mesenchymal interactions in lung and skin morphogenesis in vitro. Gallus domesticus (Aves)

STAGNI, Ms. A.; Dr., Prof. – Inst. of Zool., Univ. of Bologna, Via S.Giacomo 9, 40126 BOLOGNA, Italy

a Sex determination and sex differentiation. Chlorohydra viridissima (Hydroidea)

b Cytochemistry and electron microscopy of oogenesis and spermatogenesis. Same species as a

c Inhibition by antibiotics of steroid hormone-induced sex-reversal in tadpoles. Rana dalmatina (Anura)

d Electron microscopy of the relationship between neurosecretion and schizogenesis. Aeolosoma spec. (Oligochaeta)

STANGE, Ms. L.; Dr.rer.nat., Prof. – Arbrgr. Pflanzenphysiol., Univ. Kassel, Heinrich-Plett-Str. 40, 35 KASSEL, B.R.D. (Germany)


a Factors influencing growth in the early postnatal period. Sus serofo domesticus (Artiodactyla)

STANISSTREET, M.; Ph.D. – Dept. of Zool., Univ. of Liverpool, Brownlow St., P.O.Box 147, LIVERPOOL L69 3BX, England

a Biochemistry and morphology of abnormal and normal early development (lithium, electrophoresis, cell aggregation, protein synthesis, electron microscopy). Xenopus laevis (Anura)

STARK, E.; Prof. – Pathophysiol. Dept., Inst. of Exp. Med., Hung. Acad. of Sci., Szegony 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

STARRE, H. van der; Drs.biol. – Dept. of Med. Anat. and Embryol., State Univ. of Utrecht, Janskerkhof 3A, UTRECHT, Netherlands

a Eye lens induction in vitro studied in chimaeric cultures. Gallus domesticus, Coturnix c. japonica, Anas platyrhynchos (Aves)

b Histochemistry and immunology of eye lens inducers. Gallus domesticus (Aves)

c Biosynthesis of soluble lens crystallin antigens before and after gating (isoelectric focusing, autoradiography). Same species as b

d Synthesis of soluble proteins in the whole embryo and in the cultured eye cup (disc electrophoresis, isoelectric focusing, autoradiography). Same species as b (with P. Th. JANSSEN)

e Biosynthesis of soluble lens crystallins in early and late development (isoelectric focusing, autoradiography) Anas platyrhynchos (Aves) (with S. K. BRAHMA)

f Isometric focusing of some enzymes during lens development. Gallus domesticus, Anas platyrhynchos (Aves) (with S. K. BRAHMA)

ŠTASTNÝ, F.; M.D.; Dr. – Inst. of Physiol., Charles Univ., Albertov 5, 128 00 PRAHA 2, Czechoslovakia

a Morphological, biochemical, and functional maturation of the embryonic choroid plexus. Gallus domesticus (Aves)

b Studies on neurons and glial cells isolated from the embryonic cerebral hemispheres. Same species as a


a Oogenesis, particularly in telotrophic ovaries. (Insecta)


a Factors affecting embryonic development in vitro. Rattus spec. (Rodentia)

b In vitro models of allograft rejection. Sus serofo domesticus (Artiodactyla)

c Fetal alcohol syndrome (in vitro techniques). Same species as a

STEENBERGEN, C. L. M.; Dr. – Limnol. Inst., Rijkstraatweg 6, NIEUWERSLUIS, Netherlands

STEFALELLI, 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. Brachydania rioo (Teleostei), Xenopus laevis (Anura)

STEGER, H.-E.; Dr.med., Prof. – Univ.-Frauenklinik, Martinist. 52, 2 HAMBURG 20, B.R.D. (Germany)

a Ultrastructure of ovarian interstitial cells, fetal ovaries, and oocytes; oocyte culture in vitro. Cavia porcellus, Mus musculus (Rodentia), Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)

STEINER, E.; Dr.phil. – Zoöl.-Vergl. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland

a Cell lineage in imaginal discs. Drosophila melanogaster (Diptera)

b Transdetermination. Drosophila spp. (Diptera)

STEINERT, Ms. G.; Lic.Chem. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 RHODE-ST-GENÈSE, Belgium
Egg maturation (electron microscopy, cytochemistry), Xenopus laevis (Anura)
b Presence of lysosomal enzymes in yolk platelets of developing eggs. Same species as a

STEINMETZ, H. - Inst. für Genet., Univ. des Saarlandes. 66 SAARBÜCKEN 11, B.R.D. (Germany)
a Regulation of isoenzyme loci and lethal factors. Drosophila melanogaster (Diptera)

STELMAN, S. - Lab. of Exp. Embryol., III.Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland
Cell surface antigen localisation in differentiation and malignancy of embryonic fibroblasts. Gallus domesticus (Aves) (with J. J. WARTIOVAARA and A. VAHERI)

Regularities of the oocyte maturation process. (Acipenseridae, Chondrostei; Amphibia) (with T. A. DUTTLaFF, E. V. CHLORITE and P. E. FEULENGAUER)

STÉPHAN, F.: D.Sc., Prof. - Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
a Morphogenesis of the embryonic axis, Gallus gallus (Aves)
b Postembryonic development of the integument. Calliphora spec. (Diptera)
c Role of nervous system in pharynx induction. (Turbellaria)

STÉPHAN (DUBOIS), Ms. F.: D.Sc. - Lab. de Zool., Univ. de Nancy I, C.O.140, 54037 NANCY Cedex, France
a Migration and differentiation of regeneration cells. (Tricladida, Turbellaria; Microdrilida, Oligochaeta)

STĚBA, O. - Dept. of Morphol., Inst. of Vert. Zool., Czech. Acad. of Sci., Kvetná 8, 60365 BRNO, Czechoslovakia
a Prenatal growth and organogenesis in alltricial (nidicolous) and precocial (nidifugous) species. (Insectivora; Rodentia; Carnivora; Artiodactyla)

a Electron microscopy of placenta in relation to physiological exchange; control of parturition and maintenance of the fetal environment. Ovis aries (Artiodactyla), Equus caballus (Perissodactyla)
b Structure and function of binucleate cells in the placenta. Ovis aries (Artiodactyla)

STOCKER, R. F.; Ph.D. - Zool. Inst., Univ. Basel, Rheinsprung 9, 4051 BASEL, Switzerland
a Determination of the time at which connections are established between sensory axons from the anterior disc and brain, especially the question whether axons from homeotic legs in mutant Antennapedia are guided to normal anterior projection centres by fibers present before the transformation of the disc into anterior-leg disc (ultrastructure, reconstructions). Drosophila melanogaster (Diptera)
b Experiments on the cause of the almost complete absence of muscles in homeotic legs of Antennapedia. Same species as a

STOLL, R.; D.Méd., D.Sc., Prof. - Lab. d'Histol. et d'Embryol., Univ. de Bordeaux II, 146 rue Leo-Saignat, 33076 BORDEAUX Cedex, France
da Differentiation of the genital tract. Gallus gallus (Aves)
b Physiology of the embryonic thyroid. Same species as a

STRAATEN, H. W. M. van; Drs. - Vet. Anat. and Embryol. Inst., State Univ. of Utrecht, Bekkerstraat 141, UTRECHT, Netherlands
a Testicular development from fetus till sexual maturity (histology, histochemistry): 1. normal development; 2. development in cryptorchidism; 3. testicular autotransplantation. Sus scrofa domesticus (Artiodactyla)

STRAUSS, P.; M.D., Prof. - 33 Eichenrain, 3122 KEHRSATZ, Switzerland
a Comparative implantation and placentaion. (Prototheria; Eutheria, Mammalia)
b Comparative anatomy of the female reproductive system. Same species as a

STREET, H. E.; D.Sc., Prof. - Bot. Labs., Univ. of Leicester, Adrian Bldg., LEICESTER LEI 7RH, England
a Embryogenesis and organogenesis in tissue and cell cultures (biochemistry, histochemistry, electron microscopy). Daucus carota (Umbelliferae), Atropa belladonna, Nicotiana spp. (Solanacea)
b Cytodifferentiation and its hormonal control in vitro; induction of synthesis of secondary metabolites using mutant cell lines derived from haploid cells. Nicotiana spp., Atropa belladonna (Solanacea), Acer pseudoplatanus (Aceraceae)
c Chloroplast differentiation and development of autotrophic growth in vitro. Spinacea oleracea (Chenopodiaceae)

STROEVA, Ms. O. G.; Dr.biol. - Koltzov's Lab. of Cell Differ., Inst. of Devl. Biol., Acad. of Sci. of the USSR, Vavilov St. 26, MOSCOW 117334, U.S.S.R.
a Development and teratology of the iris and ciliary body in organ culture. Rattus norvegicus (Rodentia) (with L. V. AKHABADZE)
b Dependence of DNA synthesis and cell proliferation in pigment epithelium of the retina upon general growth factors of the eye. Same species as a (with I. G. PANOVA)
c Development of regional differences in neural retina and pigment epithelium (synthesis of RNA, electron microscopy). Acipenser stellatus, A. guldensstädti (Chondrostei) (with V. I. MITASHEV and E. A. BABURINA)

STROLENBERG, G. E. C. M. - Dept. of Zool., Cathol. Univ., Toernooiveld, Nijmegen, Netherlands
a Ultrastructure of neurosecretory system during development (Decapoda, crustacea)

STRÖM, R.: Fil.lic. - Inst. of Zool., Uppsala Univ., Box 561, 751 22 UPPSALA, Sweden
a Larval development. (Bryozoa)

STRUDEI, G.; D.Sc. - Inst. d'Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle
a Development et tératologie de la colonne vertébrale. Gallus gallus (Aves)
b Biochimie et ultrastructure du cartilage vertébral. Même espèce comme a
c Rôle induecteur de la choride et du tube nerveux; chondrogenèse. Même espèce comme a
d Composition, origine et fonction du matériel extracellulaire péréinéral et péréichoral. Même espèce comme a
e Biochimie, origine et fonction des amine biogènes chordales, régulation neurohumorales chez l'embryon. Même espèce comme a

STURDEE, A. P.; Ph.D. – Dept. of Biol. Studies, Lancaster Polytechnic, COVENTRY CV 1 5 FB, 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 (Teleosteoi), Xenopus laevis (Anura)

STURROCK, R. R.; M.B., Ch.B. – Dept. of Anat., Univ. of Dundee, DUNDEE DD1 4HN, Scotland, U.K.
a Histogenesis of neuroglia. Mus musculus (Rodentia)
b Quantitative studies of effects of minimum deprivation on brain growth. Same species as a

SUCH (RAZIMBAUD), Ms. J.; D.Sc. – Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France
a Experiments on ommatidium morphogenesis in the embryo in vivo and in vitro. Carausius spec. (Phasmodia)

SUŁCOVÁ, 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)

a Cell lineage, especially of the nervous system. Caenohabditis elegans (Nematoda)

SUMNER, Ms. B. E. H.; D.Phil. – Dept. of Physiol., Med. Sch., Univ. of Edinburgh, Teviot Place, EDINBURGH EH 8 9 AG, Scotland, U.K.
a Changes induced in the hypoglossal nucleus by axotomy and related operations of the hypoglossal nerve (quantitative ultrastructural and cytochemical study of neurone perikarya, dendrites, presynaptic boutons and nearby glia). Rattus spec. (Rodentia)

SURANI, M. A. H.; Ph.D. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England
a Molecular changes in cell surface properties from zygote to blastocyst and cellular differentiation during development: functional changes in membranes and transport systems; influence of and responsiveness to environmental conditions; parthenogenetic development; activation process of oocytes; post-implantation development including X-inactivation. Mus musculus, Rattus spec. (Rodentia)
b Implantation: role of uterine luminal components; cell surface interactions between blastocyst and uterine epithelium; differentiation of uterine stem cells in response to sex steroids; uterine sensitization for implantation. Mesocricetus auratus, Rattus spec., Mus musculus (Rodentia)

SUSO VERGARA, S. – Dept. of Anat., Univ. of Barcelona, C./Casanova 143, BARCELONA 11, Spain
a Development of skeletal system and integument in the embryo. (Aves)

ŠATÁLO, 3, P.O.Box 166, 41001 ZAGREB, Yugoslavia
a Differentiation of isolated germ layers, transplantation, in vitro culture. Rattus norvegicus (Rodentia) (with B. LEVAK and N. ŠKREB, Inst. of Biol.)
b Chondrogenèse 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)

ŠIJACAR, 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-deoxyctydine 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 L. I. KOROCHIN and V. I. MITASHOV, (Moscow))

a Experimental polyembryony. Tilapia mossambica (Teleosteoi), Rana temporaria (Anura), Gallus gallus, Anser anser, Meleagris gallopavo, Coturnix c. japonica (Aves)

SWAAB, D. F.; – Dr. Netherl. Inst. for Brain Res., IJdijk 28, AMSTERDAM, Netherlands
a Interaction with hormones during maturation and adaptation of the nervous system. Rattus norvegicus (Rodentia), Homo sapiens (Primates)

a Fetal gastric mucosa in organ culture. Homo sapiens (Primates)
SWANSONE (FARTLY), Ms. H. H.; Ph.D. - Dept. of Anat., Med. School, Univ. of Birmingham, Edgbaston, BIRMINGHAM B15 2TJ, England

a Effects of gonadal hormones given shortly before or after birth and of sex hormones implanted in brain of new-born animals on sex-typical morphology, function, and behaviour. Mesocricetus auratus, Meriones unguiculatus (Rodentia)
b Mechanisms for fertility control (including intra-uterine absorptions) in confined colonies. Same species as a


a Ontogeny of foetal lymphoid structure and function. Sus scrofa, Ovis aries (Artiodactyla)


SZASZOVSKY, Ms. E. - Res. Inst. for Pharm. Chem., P.O.Box 82, 1325 BUDAPEST, Hungary

a Effect of dolafibrate and other hypolpidemic agents on development and mortality. Rattus norvegicus (Rodentia), Oryctolagus cuniculus (Lagomorpha)

SZKELFY, G.; M.D. - Dept. of Anat., Univ. Med. School, 4012 DEBRECEN, Hungary

a Development of the spinal motor column in limbless and intact animals. Xenopus laevis (Anura)

TALEMMITE, J. L.; M.D. - Lab. d'Embryol. et de Cytogénét., Fac. de Méd. Saint-Antoine, 27 rue Chaligny, 75571 PARIS Cedex 12, France

b Tissue culture of fetal material in connection with the problem of sterility. Homo sapiens (Primates)

TAMARELLE (GARAUDY), Ms. M.; Dr.Univ. - Lab. de Zool. Exp., Univ. de Bordeaux I, Av. des Facultés, 33405 TALENCE, France

a Descriptive and experimental embryology (Collemboila)
b Ultrastructure of germ line cell segregation. Same species as a
c Differential and ultrastructural differentiation of the dorsal organ pattern. Same species as a

tarde, P.; Dr.phil., Prof. - Zool-verg. Anat. Inst., Univ. Zürich, Künstlergasse 16, 8006 ZÜRICH, Switzerland


a The mechanism of neural induction, especially the role of ecto- and mesodermal components and the nature of secondary nervous system induced by organiser transplants (histology, histochemistry, electron microscopy, time lapse cinematography). Xenopus laevis (Anura)
b Interactions between epithelial and connective tissues in tumour development, invasion and metastasis (histology, electron microscopy, transplantation). (Vertebrata)

tarkowski, A. K.; Ph.D., D.Sc., Prof. - Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krak.Przedmieście 26/28, 00-927 WARSZAWA, Poland

a Preimplantation development in vivo and in vitro. Mus musculus (Rodentia)
b Chromosomal aberrations in embryogenesis. Same species as a
c Nucleo-cytoplasmic interactions during oogenesis and preimplantation development. Same species as a

tarone, G.; Ph.D. - Cell and Molec. Biol. Lab., Dept. of Human Anat., Univ. of Turino, Corso M.d'Azeglio 52, 10126 TORINO, Italy

a Cell membrane differentiation; immunohistochemistry 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)


a Cytology and morphology of the placenta, especially changes in the feto-maternal boundary during partus. Ovis aries, Sus scrofa domesticus (Artiodactyla)


a Embryology, phylogenesis of development and reproduction. many spp. (Cottidae; Conopéhori-dae; Paracottidae; Cottocephoridiae), Coregonus spp., Thymallus spp. (Salmonidae, Teleostei)

b Viviparity. (Teleostei)

tei, Ms. S.; Dr. - Ist. di Anat. Comp., Univ. di Perugia, Via A. Pascoli, 06100 PERUGIA, Italy

a Action of magnetic field on regeneration. Dugesia lugubris (Turbellaria)
b Histochemistry and ultrastructure of the cocoon. Branchiobedella pentodonta (Oligochaeta) 

TEILLET, M. S. A. – Inst. d’Embryol. du C.N.R.S. et du Coll. de France, 49bis av. de la Belle 

Gabrielle, 94130 Nogent-sur-Marne, France 

a Migration and differentiation of neural crest cells studied in chimaeras; autonomic nervous 

system; differentiation of cholinergic and adrenergic neurons. Gallus gallus, Coturnix c. japonica 

(Aves) 

TEJEDO MATEU, A. – Dept. of Anat., Univ. of Barcelona, C/ Casanova 143, Barcelona 11, Spain 

a Obstruction and recanalization of the embryonic ureter. Rattus rattus (Rodentia) 

TEMPLEAR, M. J.; Drs. – Vagkologenica, State Univ. of Groningen, Biol. Ctr., Vleugel A, 

Kerklaan 30, Haren 8045, Netherlands 

a Abnormal DNA-content in developing and adult stages carrying X-ray-induced chromosome 

aberrations (cytophotometry). Tetranychus urticae (Acari, Arachnida) 

TENCER, M. S. R.; D.Sc. – Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux, 1640 

ROHDE-ST-GENESE, Belgium 

a Cell surface during early development. Xenopus laevis (Anura), Pleurodeles waltl, Ambystoma 

mexicanum (Urodela) 

TEPLETZ, Ms. N. A.; Cand.biol.sci. – Inst. of Developm. Biol., Acad. of Sci. of the USSR, Vavilov 

St. 26, Moscow 117334, U.S.S.R. 

a The role of neurotransmitters (acetylcholine, serotonin, catecholamines) in early embryogenesis. 

Strongylocentrotus drobachiensis, S. nudus, S. intermedius, Paracentrotus lividus, Arbacia lixula, 

Sphaerechinus granularis (Echinoida) (with G. A. BUZNIKOV) 


ORSAY, France 

t Early developmental stages. Acanthocyclops spec. (Copepoda) 


(Germany) 

a Development of the retina-lamina complex, especially nerve connections (development, regenera- 

tion); origin of glial elements (in vitro techniques, electron microscopy). Ephestia kuehniella 

(Lepidoptera) 

c Genealogy of the ommatidium (transplantation, culture in vitro, electron microscopy). Same 

species as a 

TESTA-BAPPENHEIM, I.; Dr.med.A.O., Prof. – Ist. e Lab. Antropol., Univ. di Camerino, Via Filippo 

Camerini 5, 62032 CAMERINO, Italy 

a Experimental embryology. Triturus alpestris, T. taeniatus (Urodela) 

b Developmental genetics and pathology. Homo sapiens (Primates) 

c Teratogenesis and chromosomomas. Same species as b 

TEWARI, Ms. N.; M.Sc. – Inst. d’Histochem. Méd., Univ. Paris V (René Descartes), 45 rue des 

Sts.Pères, 75270 Paris Cedex 06, France 

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

THEILER, K.; Dr., Prof. – Dept. of Anat., Histol., and Embryol., Univ. of Zürich, Gloriastr. 19, 8006 

ZURICH, Switzerland 

a Developmental genetics of the vertebral column and of the eye, Mus musculus (Rodentia) 


(Tour 43), 75221 Paris Cedex 05, France 

a Abortive transcription of globin genes in erythrolyeukemic cells. Gallus domesticus (Aves) 

THESINGH, Ms. C. W.; M.D. – Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, 

HEIDEN, Netherlands 

a Development and function of ultimobranchial body in organ culture. Gallus domesticus (Aves) 

b Hormonal regulation of calcium metabolism and bone formation in embryos. Same species as a 

c Origin and function of cysts in ultimobranchial body and parathyroid in embryo. Gallus domesticus, 

Coturnix c. japonica (Aves) 


ARHUS C, Denmark 

a Electron microscopy of tooth development in vitro. Mus musculus (Rodentia) (with O. FEJERSKOV and K. JOSEPHSEN) 

THESLIEFF (SAXEN), Ms. I. P. N.; D.D.S. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of 

Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland 

a Drug-induced teratogenesis in vitro. Mus musculus (Rodentia) 

b Tissue-interactions in tooth development. Same species as a 

THÉVENET, Ms. A; Dr spéc. – Lab. de Zool. et Biol. Anim., Univ. Sci. et Méd. de Grenoble, B.P.53, 

Centre de Tri, 38041 GRENOBLE Cedex, France 

a Epithelio-mesenchymal interaction and proliferation during cutaneous wound healing in the 

embryo. Gallus gallus (Aves) 

THIERY, M.; M.D., Ph.D., Prof. – Dept. of Obstet. and Gynecol., Acad. Hosp., Univ. of Gent, 

De Pintelaan 135, 9000 GENT, Belgium 

a Intra-uterine hypoxia (determination of blood lactate/pyruvate balance and acid/base balance). 

Homo sapiens (Primates) 

b Longitudinal study of twins and correlation with genotype as determined by placental membrane 

morphology, placental zymograms, and extensive bloodtyping. Same species as a 

c Histochemistry of placenta. Same species as a 

THIRIOU-HEBERT, Ms. M. – Lab. de Biol. de la Reprod., Univ. Paris VI (P. et M. Curie), Bât.A, 

101
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)


a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R.M. CLAYTON, D. E. S. TRUMAN, J. JACKSON (Edinburgh), and R. WILLIAMSON (London)


a Skeletal stem cells and the differentiation of skeletal tissues. Gallus domesticus (Aves)
b Ectopic chondrogenesis and osteogenesis. Rattus spp. (Rodentia)

THORS, F.; Drs. - Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N.21, NIEMEGEN, 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 ARHUS C, Denmark
a Development and mineralization of dental enamel from still-born infants (polarizing and light microscopy, microangiography, scanning and transmission E.M.). Homo sapiens (Primates)
b Experimentally disturbed tooth development (polarizing and light microscopy, microangiography, scanning and transmission E.M.). Rattus spec. (Rodentia), (Primates)

a Cellular interactions in limb morphogenesis, particularly the antero-posterior axis. Gallus domesticus (Aves)

TIEDEMANN, H.; Dr.med., Dr.rer.nat., Prof. - Inst. fur 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 Mechanism and organ specificity of transcription and translation (erythroblast, liver). Gallus gallus (Aves)

TIEDEMANN (WAECHTER), Ms. H.; Dr.rer.nat. - Inst. fur 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)

TIMASHKEVICH, Ms. T. B.; Cand.med.sci. - Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsursupa St. 3, MOSCOW 117469, U.S.S.R.
a Regeneration and cell division in the stomach. Rattus norvegicus, Mus musculus (Rodentia)
b Quantitative evaluation of restoration of resected stomach. Same species as a

a Origin of primordial germ cells (immuno) histochemistry, autoradiography). Dentalium vulgar (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 lataei, R. esculenta (Anura)
b Nervous system and neurosecretion in asexual reproduction, sexual differenntiation and regeneration. Dugesia gonocephala, Polyceles nigra, Dendrocoelum lacteum (Turbellaria)

TOIVONEN, S.; L.; 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 inducers. Triturus spec. (Urodela)
b The mechanism of primary induction. Same species as a
c Cell interaction. Same species as a

tOKIN, B. P.; Dr.bioul., 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. - Dept. of Anat., Histol., and Embryol., Univ. of Zürich, Gloristr. 19, 8006 ZÜRICH, Switzerland
a Action of different viruses on embryos, pathogenesis, and way of infection. Homo sapiens (Primates)
b Development of the lymphatic system. Same species as a
c Pre- and postnatal development of thymus and lymphatic organs of the "nude" mutant. Mus musculus (Rodentia)
a Metabolism of tryptophane and 5-hydroxytryptamine (serotonin). Psammechinus miliaris, Strongylocentrotus droebachiensis, Paracentrotus lividus (Echinoidea)

b Embryological development of collagen. Same species as a

TONGE, C. H.; D.D.Sc., Prof. – Dept. of Oral Anat., Dental School, Northumberland Rd., NEWCASTLE upon Tyne NE1 8TA, England

a Tooth development and eruption.
b Effect of severe undernutrition on the development and growth of teeth and jaws (including rehabilitation). Sus scrofa (Artiodactyla)
c Protein calory deficiency and rehabilitation relative to the development and growth of teeth and jaws. Same species as b

TONNEYCK (MÜLLER), Ms. L. – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands

a Experiments on skull morphogenesis, Gallus domesticus (Aves)


a In vitro culture of blastocysts, Ovis aries, Bos taurus (Artiodactyla)
b Embryonic development and interrelations between embryo and corpus luteum. Same species as a

c Sexing of blastocysts. Bos taurus (Artiodactyla)
b D Blastocyst implantation. Oryctolagus cuniculus (Lagomorpha)

TOSI, Ms. L.; Dr. – Stazione Zoologica, Villa Comunale, 80121 NAPOLI, Italy

a DNA methylation in embryos. Sphaerechinus granularis, Paracentrotus lividus (Echinoidea)

TOSCI, Ms. A.; Biol. – Dept. of Med. Biol., Med. School, P.23 August 1, 1900 TIMISOARA, Romania

a Role of normal and experimentally induced necrosis in teratogenesis. Gallus domesticus (Aves)
b Cytogenetics. Homo sapiens (Primates)

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

a Control of sexual differentiation (endocrinology and physiology). Lysmata seticaudata, Leander serratus, Crangon crangon (Decapoda, Crustacea)

TRABUCHET, G.; Dr.3e cycle – Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 November 1918, 69621 VILLEURBANNE, France

a Genetic factors in the globin synthesis. Homo sapiens (Primates)

TRAUT, W.; Dr., Prof. – Abt. Biol., Arb.gr. Entw.physiol. der Tiere, Ruhr-Univ., 4630 BOCHUM, B.R.D. (Germany)

a Role and phases of activity of the 3-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)

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 (Anura), Salamandra salamandra (Urodela)

TRNKOVÁ-ŠVECOVÁ, Ms. E.; BN'Dr. – Dept. of Anat., Charles Univ., U nemocnice 3, 12800 PRAHA 2, Czechoslovakia

a Development of the flexor muscles in the hand. (Mammalia)

TRUCKENBRODT, W.; Dr. – Fachber.3 Biol., Univ., Postfach 4469, 4500 OSNABRÜCK, B.R.D. (Germany)

a Effect of actinomycin D, cordycepin and other inhibitors of development on eggs. Odontotermes badius (Isoptera)
b Developmental stages of the different castes. Odontotermes stercorivorus (Isoptera)


a Properties of lens mRNAs; regulation of stability. Gallus domesticus (Aves) (with R. M. CLAYTON, J. THOMSON and J. F. JACKSON (Edinburgh), and R. WILLIAMSON (London))
b Synthesis, ontogeny, location, and immunocytochemistry of lens proteins in normal animals and mutants. Gallus domesticus (Aves), Mus musculus (Rodentia) (with R. M. CLAYTON, J. C. CAMPBELL, D. J. PRITCHARD (Edinburgh), and D. S. McDEVITT (Philadelphia)


a Developmental genetics of ocular and auditory disorders in mutants. Mus musculus (Rodentia)

Anencephalie. Homo sapiens (Primates)

Tératogénèse par sulfamides hypoglycémiant, antimétabolites. Rattus spec. (Rodentia) (avec L. MERCIER)

Influence des hormones sur le développement foetal. Même espèce comme b

Influence des alcaloïdes du Rauwolfia, de la résépine et de la désépoxide sur le développement. Même espèce comme b (avec L. MERCIER)

Influence des neuroleptiques sur la fertilité et le développement foetal. Rattus spec., Mus spec. (Rodentia), Oryctolagus cuniculus (Lagomorpha)

Diabète expérimental et grossesse. (Mammalia)

Influence des antimitotiques, des anticonvulsants et de la prostaglandine F2a sur la gestation. Même espèce comme c (avec L. MERCIER)


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

Vascular development in the embryonic central nervous system. Gallus domesticus (Aves)

Somatic chromosomal constitution of subjects with genetic defects. Homo sapiens (Primates)

Genetic, developmental and hormonal aspects of gonadal dysgenesis and sex inversion. Same species as b

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


Role of chemical intercellular interactions in regulation of the rate of cell multiplication and intracellular synthesis studied in cell cultures and in vivo. Gallus domesticus (Aves), Rattus norvegicus, Mus musculus (Rodentia)

Participation of intracellular substances in gastrulation. Misgurnus fossilis (Teleostei)

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

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

Embryology of a seed sterile population. Ranunculus penicillatus (Ranunculaceae)

Endopolyploidy in the antipodals. Ranunculus penicillatus, R. petaltus (Ranunculaceae)

TURCHINI, J. P.; D.Méd., D.Sc., Prof. – Lab. d’Histol.-Embryol.-Cytogénét., Fac. de Méd., B.P.38, 38001 CLERMONT-FERRAND Cedex, France

Neonatal liver. Mus musculus (Rodentia)


In vitro myogenesis. Gallus domesticus (Aves), Rattus spec. (Rodentia)

Control of cell proliferation. Gallus domesticus (Aves)


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

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

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

Embryogenesis of nervous system. Tetrodontophora bielanensis (Cologmbola)

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

Cytchemistry and electron microscopy of the origin of dorso-ventral polarity of the egg: 1. cytoplasm and pigment movements during grey crescent formation (with K. HARA and K. RZ; HAK (KRAKÓW)); 2. factors involved in cytoplasmic segregation; 3. possible role of neuro-transmitters. Xenopus laevis, Discoglossus pictus (Anura)

Establishment of bilateral symmetry in the uncleaved egg studied by transplantation of cytoplasm. Same species as a (with P. D. NIEUWKOOP)

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

Polyovular follicles. Mus musculus (Rodentia)

Oogenesis. Isoodon macrourus (Peramelidae), Trichosurus vulpecula (Phalangeridae), Sarcophilus harissii (Dasyuridae, Marsupialia)

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

URSRUPER, H.; Ph.D., Prof. – Swiss Fed. Inst. of Technol., 8092 ZURICH, Switzerland

no embryological work in progress

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

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

VACER, E.; Ph.D., D.Sc., Prof. – Inst. of Embryol., Charles Univ., Albertov 4, 128 00 PRAHA 2, Czechoslovakia

Electron microscopy and histochemistry of the placenta (comparative studies on the sub-microscopic structure, enzyme histochemistry and transport mechanism). Homo sapiens
(Primates), (Rodentia; Carnivora; Insectivora; Chiroptera)

b Role of primitive streak and tail region in early differentiation of the body (submicroscopic and cytochemical studies in normal and experimental conditions). Rana esculenta (Anura), Gallus domesticus (Aves), Rattus spec. (Rodentia)

VAGNETTI, M.S.; Dr. - Ist. di Anat. Comp., Univ. di Perugia. Via A.Pascoli, 06100 PERUGIA, Italy

a Ultrastructure of the cocoon. Dugesia lugubris (Turbellaria)

b Action of antiandrogens on the ultrastructure of male genital organs. Cavia porcellus (Rodentia)

VAHERI, A. - Lab. of Exp. Embryol., III.Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Cell surface antigen localization in differentiation and malignancy of embryonic fibroblasts. Gallus domesticus (Aves) (with J. J. WARTIOVAAARA and S. STENMAN)

VAHS, W.; Dr.phil., Prof. - Zool. Inst. der Univ., Weyeratal 119, 5000 KOLN 41, B.R.D. (Germany)

a Phase specific gene activities in the eyecup-lens-system of the developing embryo, as revealed by quantitative cytochemical DNA determinations. Salmo irideus (Teleostei), Triturus vulgaris (Urodela)

b Ultrastructure of embryonic cells undergoing induction and differentiation. Triturus vulgaris (Urodela)

c Amitosis in liver and other organs (polyploidization in embryos and larvae). (Amniota)

d Polyploidization and cell cycle. (Ciliata)

VAKAES, L. C. A.; M.D., Prof. - Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2010 ANTWERPEN, Belgium

a Early development (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, M. S. - Dr. - Inst. of Med. Genet., Kashirskoye Chaussee 6a, MOSCOW 115478, U.S.S.R.

a Genetic regulation of development of brain, eye, and limbs. Mus musculus (Rodentia)

VALKEMA-PORRENGA, J.; Drs. - Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands

a Development of bone and onset of mineralization in radii of 14-day embryos (electron microscopy). Mus musculus (Rodentia)

VAN GANSEN, M. P.; Prof. - Dept. of Molec. Biol., Free Univ. of Brussels, 67 rue des Chevaux

b Pre-embryogenesis and vitellogenesis of oocytes.

c Nuclear protein synthesis (high resolution autoradiography). Xenopus laevis (Anura)

d Ageing in primary culture of embryonic fibroblasts: ultrastructure, collagen synthesis, replication and transcription (transmission and scanning electron microscopy, autoradiography, thymidine and uridine incorporation, actinomycin fixation). Mus musculus (Rodentia)

VANNENRAU, M. - Lab. de Biol. Cell., Fac. de Pharm., Univ. Paris-Sud, 22 rue J. B. Clément, 92290 CHÂTENAY-MALABRY, France

a Gametogenesis, embryogenesis, formation of haustorium (ultracomm). Plant. gineaceae

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; Tricladiida, Turbellaria; Serpulidae, Polychaeta)

d Nervous system and neurosecretion in asexual reproduction, sexual differentiation and regeneration. Hydra spec., Chlorohydra viridissima (Hydroidea), Dugesia spec., Polycelis nigra, Denrocoelum lacteum (Turbellaria)


a Experimental morphogenesis and regeneration. Actinia equina (Actinozoa)

b Experimental histogenesis and regeneration. Actinia equina (Actinozoa)

VAN ROELEN, C. - Lab. of Anat. and Embryol., State Univ. Ctr., Groenenborgerlaan 171, 2010 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)


a Teratogenic action of fluoride. Gallus gallus (Aves)

VARGA, A.; Dr., Ir. - Dept. of Plant Physiol., Agric. Univ., Arboretumlaan 4, WAGENINGEN, Netherlands


a Development of the conducting system in the heart. (Aves)

b Development of the conducting system in the heart. (Aves)

VASES, 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)

Meiosis and duration of meiotic phases. Maetra spec., Anodonta spec., Unio spec. (Lamellibranchia) 

History of meiosis research. (Animalia) 

VEDDER, F. D.: Dr rer. nat. - Zool. Inst. der Univ., Weyertal 119, 5000 KOLN 41, B.R.D. (Germany) 

a Protein metabolism during limb regeneration. Triturus vulgaris, T. alpestris (Urodela) 

VEGT, G. B.; Drs. - Lab. for Cell Biol. and Histol., State Univ., Rijnsburgerweg 10, LEIDEN, Netherlands 

a Cultivation of embryonic intestinal tissue. Rattus spec. (Rodentia) 

VEINI (HARITOS), Ms M.; M.Sc. - Zool. Lab., Univ. of Athens, Panepistimiopolis (Kouponia), ATHENS (621), Greece 

VELA FERNÁNDEZ, J. A. - Dept. de Genet., Univ. de Barcelona, Av.José Antonio 585, BARCELONA-7, Spain 

b Shell-gland induction (actinomycin-D treatment; electrofocussing of total protein). Physa acuta, Lyymnaea auricularia (Gastropoda) 

c Chorion-free embryo culture. Same species as a 

VELTMAN, W. A. M.; Drs. - Neth. Inst. for Brain Res., Jridijk 28, AMSTERDAM, Netherlands 

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


VERDIER, G. P. J.; Dr. spec. - Dépt. de Biol. Gén. et Appl., Univ. de Lyon I, 43 Bd. du 11 November 1918, 69621 VILLEURBANNE, France 

a mRNA metabolism during development of choroplast induced by illumination. Euglena gracilis (Euglenophyceae) 

VERDONK, N. H.; Ph.D.; Prof. - Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands 

b Determination of bilateral symmetry in the head region. Lymnaea stagnalis (Gastropoda) 

c Germinal localization in eggs. Various spp. (Mollusca) 

VERKOBSTAD, A. A. J.; Med.drs. - Dept. of Anat. and Embryol., Cathol. Univ., Geert Grooteplein N. 21, NIJMEGEN, Netherlands 

a Differentiation of epinephrine- and nor-epinephrine-containing cells in the adrenal medulla (histochemistry). Mus rattus (Rodentia) 


a Morphological and experimental study of dermal mesenchyme innervation in the embryo from 5 days of incubation. Gallus gallus (Aves) 

b Long-term culture in vitro of associations of embryonic skin and spinal ganglia. Gallus gallus, Anas platyrhynchos (Aves) 

VETTERLEIN, Ms. M.; M.B. - Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, A-1090 WIEN, Austria 

a Enzyme induction in embryonic and adult liver cells in vitro by steroid hormones. Rattus norvegicus (Rodentia) 

VIELLE, B.; Dr rer. nat. - Inst. für Entw.physiol., Univ. zu Köln, Gyrohstr. 17, 5 KOLN 41, B.R.D. (Germany) 

a Biochemical aspects of differentiation in the wing. Riella helicophylla (Hepaticae) 

b Protein and amino acid metabolism during the first stages of regeneration. Same species as a 

VIJVERBERG, A. J.; Dr. - Zool. Lab., Unit of Cell Biol. and Morphogen., State Univ., Kaisersstr. 63, LEIDEN, Netherlands 

a Proliferation (mitoses) and DNA synthesis in imaginal discs (autoradiography). Calliphora erythrocephala (Diptera) 

b Influence of ecdysterone and juvenile hormone on morphogenesis of imaginal discs. Same species as a 

VILANOVA TRIAS, J.; - Dept. of Anat., Univ. of Barcelona, C/.Casanova 143, BARCELONA 11, Spain 

a Biochemical changes in cerebrospinal fluid during embryonic development. Gallus domesticus (Aves) 

b Effect of androgens and antiandrogens on sexual differentiation. Rattus spec. (Rodentia) 

c Secretion of antimullerian factor in developing gonad (organ culture). Same species as b 

VILJANTO, J.; M.D. - Dept. of Forensic Med., Univ. of Turku, Kiiinamyllynkatu 10, 20520 TURKU 52, Finland 

also: Dept. of Pediat., Div. of Surg., Centr. Hosp., Kiiinamyllynkatu 4-8, 20520 TURKU 52, Finland 

a Biological sequences in regeneration of subcutaneous connective tissue, using “Cellistic” method: cells in the exudate are harvested in cellulose sponge, inserted in silastic tubing (histology, histochemistry, biochemistry, immunofluorescence). Homo sapiens (Primates) 

VILLA, Ms. L.; Dr. Sci. - Zool. Inst., Univ. of Palermo, Via Archirafi 18, 90123 PALERMO, Italy 

a Ultrastructure of spermatogenesis, spermatozoa, and fertilization. Phallusia spec., Molgula impura, Ciona intestinalis (Asciidiacea) 

VINCE, M. M. A.; B.A. - Psychol. Lab., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EB, England 

a Responsiveness in the embryo. (Aves) 

b Responsiveness in the foetus. Cavia porcellus (Rodentia)
a Freeze-etching electron microscopy of ribosome-membrane association in liver cells. Rattus spec. (Rodentia) (with J. J. WARTIOVAARA)
b Differentiation of liver parenchymal cells in tissue culture. Same species as a

VITTORELLI, 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 (Echinoidae)
b Isolation of blastula cell membranes and detection of enzymatic activities. Same species as a
c Detection of cyclic AMP in embryos and in dissociated embryonic cells. Same species as a


VOGEL, O.; Dr rer. nat. – Biol. Inst. I. (Zool.) der Univ., Albertstr. 21a, 7800 FREIBURG, B.R.D. (Germany)
a Classical and biochemical aspects of pattern formation. Drosophila spec. (Diptera), Euscelis plebejus (Homoptera)

VOLLMAR, H.; Dr. rer. nat. – Biol. Inst. I (Zool.) der Univ., Albertstr. 21a, 78 FREIBURG, B.R.D. (Germany)
a Embryonic determination. Achaeta domestica (Orthoptera)
b Morphogenetic movements during early embryogenesis. Same species as a, and Aeschna cyanea (Odonata), Leptinotarsa decemlineata (Coleoptera), Rivulus milesi (Teleostei)

VOLLRATH, L.; Dr.med., o.Prof. – Anat. Inst. der Univ., Saarstr. 19-21, 6500 MAINZ, B.R.D. (Germany)

VOSSEN, J. G. H. M.; Drs. – Dept. of Genet., Cathol. Univ., Toernooiveld, NIJMEGEN, Netherlands

a Induction of puffing by injection of mitochondrial extracts into salivary gland cells. Drosophila hydei (Diptera)

VREEZEN, M. W. J.; Drs. – Genet. Lab., State Univ., Kaiserrstr. 63, LEIDEN, Netherlands

a Selection on asymmetrical wing development. Drosophila melanogaster (Diptera)

VRIES, O. M. H. de; Dept. of Developm. Plant Biol., State Univ. of Groningen, Biol. Ctr., Kerklaan 30, HAREN (Gr.), Netherlands

a Genome activity during development. Schizaphyllum commune (Basidiomyctes, Fungi)

VYAZOV, O. E.; Dr.med., Prof. – Lab. of Embryol., Inst. of Human Morphol., Acad. of Med. Sci. of the USSR, Tsernop St. 3, MOSCOW 117469, U.S.S.R.

WABIK-SLIZ, M. B.; M.Sc. – Dept. of Genet. and Evolut., Inst. of Zool., Jagellonian Univ., Krakowica 50, 30-060 KRAKOW, 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 DUSSeldorf 1, B.R.D. (Germany)
a Morphogenesis of the compound eyes. (Arthropoda)

WAGNER, E.; Dr rer. nat. – Biol. Inst. II der Univ., Lehrst. für Bot., Schänzlestr. 1, 78 FREIBURG/Br., B.R.D. (Germany)
a Interaction of phychrome and endogenous rhythms in photoperiodic control of growth and development. Chenopodium rubrum (Chenopodiaceae)


a Normal development and congenital defects in the lens. Gallus domesticus (Aves)
b Cell shape and movements in the embryo. Same species as a

WAKITA, M.; Dr.med. – Inst. für Anat.I, Ruhr-Univ., Geb.MA 5/162, Universitätssstr. 150, Postfach 102148, 4630 BOCHUM 1, B.R.D. (Germany)
a Cell differentiation of ameloblasts. (Teleostei), Mus musculus (Rodentia)
b Phylogenetic development of tooth enamel. (Vertebrata)
c Relations between replacement pattern in very early stages of tooth development and distribution of neural crest cells that initiate the teeth. (Amphibia)

WAL, U. P. v.d.; Ph.D. – Zool. Lab., State Univ. of Utrecht, Transitorium III, Padualaan 8, UTRECHT, Netherlands

a Electron microscopy of chemical transformation of yolk into membrane elements in degenerating yolk granules. Lymnaea stagnalis (Gastropoda)
b Electron microscopy of the synthesis of new cytoplasmic membrane elements during early cleavage. Same species as a
c Electron microscopy of segregated cytoplasmic elements. Same species as a
d Electron microscopy of cell contacts during cleavage. Same species as a

WALKER, D. G.; Ph.D., D.Sc., Prof. – Dept. of Biochem., Univ. of Birmingham, P.O.Box 363, BIRMINGHAM B15 2TT, England

a Enzyme development and metabolite regulation in fetus and neonate. Rattus spec. (Rodentia)

WALL, R.; B.Sc. – Dept. of Zool., Univ. of Liverpool, P.O.Box 147, LIVERPOOL L69 3BX, England

a Biochemistry of normal and abnormal early development (lithium, RNA synthesis, polysomes, induction). Xenopus laevis (Anura)

WALLACE, H.; Ph.D. – Dept. of Genet., Univ. of Birmingham, Edgbaston, P.O.Box 363, BIRMINGHAM B15 2TT, England

a Limb regeneration. Ambystoma spec. (Urodela)
b Sex determination. Pleurodeles waltl (Urodela)

a Light and electron microscopy of male and female germ cells during pre- and postnatal develop-
WARTIOVAARA, J. I.; M.D. – Lab. of Exp. Embryol., III. Dept. of Pathol., Univ. of Helsinki, Haartmaninkatu 3, 00290 HELSINKI 29, Finland

a Mechanism of kidney tubulogenesis. Mus musculus (Rodentia) (with L. O. SAXÉN, E. LEHTONEN, S. NORDLING, P. EKBLOM and J. SALONEN)

b Freeze-etching electron microscopy of ribosome–membrane association in liver cells. Rattus spec. (Rodentia) (with I. VIRTANEN)

c Cell surface antigen localization in differentiating embryonic fibroblasts. Gallus domesticus (Aves) (with A. VAHERI and S. STENMAN)

WATSON, A.; B.Sc. – Dept. of Genet., Univ. of Birmingham, Edgbaston, P.O.Box 363, BIRMINGHAM B15 2TT, England

a Developmental genetics of a mutant affecting limb growth and morphogenesis. Ambystoma mexicanum (Urodela)

b Limb regeneration. Same species as a

WEBB, F. T. G.; D.Phil. – Marshall Lab., Dept. of Physiol., Univ. of Cambridge, Downing St., CAMBRIDGE CB2 3EG, England

a Control of growth and differentiation of the early embryo in vitro and in vivo. Mus musculus, Rattus spec. (Rodentia)

b Control of egg implantation. Same species as a

c Control of formation, growth and differentiation of follicles in the ovary. Same species as a, and Homo sapiens (Primates)

WEBER, R.; Ph.D., Prof. – Div. of Cell and Devl. Biol., Zool. Inst., Univ. of Bern, Sahlistr. 8, 3012 BERN, Switzerland

a Albumen synthesis during metamorphosis. Xenopus laevis (Anura) (with G. ABRAHAM)

b Hemoglobin transition in relation to metamorphosis. Same species as a

c Regulatory mechanism of estrogen-dependent synthesis of vitellogenin. Same species as a (with G. U. RYFFEL)

WEGENER, G.; Dr.ren.nat. – Inst. für Zool., Univ., Saarstr. 21, 6600 MAINZ, B.R.D. (Germany)

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)

WEGEZ, M.; D.Sc. – Centre de Génét. Moléc. du CNRS, 91190 GIF-sur-YVETTE, France

a Mécanismes biochimiques de l’oogénèse. Xenopus laevis (Anura)

WEIETTI, H. J.; Dipl.Phil.IL – Abt. Zellbiol., Biozentrum der Univ., Klingenbergstr. 70, 4056 BASEL, Switzerland

a Differentiation and determination; factors involved in embryonic development; mRNA synthesis in early stages. Drosophila melanogaster (Diptera)


WELLIESIEK, S. J.; Dr., Ir., Prof. – Dept. of Horticult., Agric. Univ., Haagsteeg 3, P.O.Box 30, WAGENINGEN, Netherlands

a Effects of flower inducing factors (long day, vernalization, very high temperature, gibberellic acid) on the blocking in vegetative plants of different genotypes. Silene armeria (Caryophyllaceae)

WELLMANN, E.; Dr.ren.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, Mauritshuizen 61, AMSTERDAM-O., Netherlands

a Cytochemistry of developing neurons. Gallus domesticus (Aves)

WENDER, M. B.; M.D., Prof. – Inst. of Neurol. and Sensory Organs, Med. Acad., 49 Przybyszewskiego St., 60-335 POZNAŃ, Poland

a The chemical composition and enzyme activity of developing nervous tissue with special reference to the period of myelination. Laboratory animals, Homo sapiens (Mammalia)

b The influence of ionizing radiation on the developing nervous system. Oryctolagus cuniculus (Lagomorpha)

c Histoenzymatic architechtonics of the developing nervous system. Rattus norvegicus (Rodentia)

WENiger, J.-P.; Dr. – Lab. de Zool. et d’Embryol. Exp., Univ. Louis Pasteur, 12 rue de l’Université, 67000 STRASBOURG, France

a Chemical nature of the testicular hormone of the embryo: probably a protein. Gallus domesticus (Aves)

b The role of the hypophysis in hormonal activity of embryonic gonads. Gallus domesticus, Anas platyrhynchos (Aves), Mus musculus, Rattus spec. (Rodentia), Oryctolagus cuniculis (Lagomorpha)

molecular control mechanisms involved. Aureobasidium pullulans (Fungi)

WILLIAMSON, D. I.; Ph.D., D.Sc. – Dept. of Marine Biol., Univ. of Liverpool, PORT ERIN, Isle of Man, U.K.

a Laboratory rearing of larval stages: moulding, feeding, number of stages. Palinusurus elephas, Nephrus norvegicus (Decapoda, Crustacea)
b Hatching rhythms. (Decapoda, Crustacea)

WILLIAMSON, R. – LONDON, England (further address unknown)

WILSON, I. B.; Ph.D. – Dept. of Zool., Univ. Coll. of North Wales, BANGOR, Caerns., Wales, U.K.
a Establishment of implantation and early pregnancy. Mus musculus (Rodentia)
b Experimental developmental morphology. Same species as a

WINKLER, a; WILSON, b; WITKOWSKA, WITHERS, WOERDEMAN, b; WOLF, a

a Biochemistry of caste determination and oviposition. Formica polyctena, l' rutiei (Hymenoptera)

a Comparative embryology. Pycnoonogaon spec., Ammotaeca spec., Phochilium spec., Callipallene spec. (Pantopoda)

WISE (WYLES), Ms. C.; Ph.D. – Zool. Dept., Univ. Coll., Belfield, Stillorgan Rd., DUBLIN 4, Ireland

a Development of retinal photoreceptors: 1. under different light conditions; 2. ultrastructure. Pocciilia reticulata (Teleostei)

a Regulation, mainly hormonal, of hepatic "detoxicating" enzymes during foetal and perinatal period. Gallus gallus (Aves), (Rodentia), Homo sapiens (Primates)
b Developmental endocrinology. (Mammalia)

WITHERS, L.: Dr. – Bot. Labs., Univ. of Leicester, Adrian Bldg., LEICESTER LE1 5RH, England

a Freezing preservation of embryos developing in cell cultures; freezing injury (electron microscopy)

WITKOWSKA, Ms. A.; Ph.D. – Dept. of Embryol., Zool. Inst., Univ. of Warsaw, Krakowskie Przedmieście 26/28, 00-927 WARSZAWA, Poland

a Preimplantation development in vivo and in vitro. Mus musculus (Rodentia)
b Chromosomal aberrations in embryogenesis. Same species as a

WOELLWARTH, C. von; Dr.phil. – Münchingerstr. 5, 7257 DITZINGEN, B.R.D. (Germany)
a Autonome Musterbildung in der Medullarplatte. Triturus alpestris (Urodela)
b Determination of Kopforganie. Same species as a

c Entstehung von Situs inversus durch Defekte und verschiedene äussere Einflüsse. Same species as a

WOERDENMAN, M. W.; M.D., Prof. (Emer.) – Anat.-Embryol. Inst., Univ. of Amsterdam, Mauritskade 61, AMSTERDAM-O., Netherlands

a Lens development. (Aves; Mammalia)

WOLBERT, P.; Dr rer. nat. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)

WOLF, R.; Dr. – Zool. Inst. (I) der Univ., Röntgenring 10, 87 WÜRZBURG, B.R.D. (Germany)

WOLF, U.; Dr. Prof. – Inst. für Humangenet. und Anthropol. der Univ., Albertstr. 11, 7800 FREIBURG, B.R.D. (Germany)
a Sex determination and differentiation. (Mammalia)

WOLFF (HENNIG), Ms. Em.; D.Sc. – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75 PARIS Ve, France

a Organ culture of cancer tumors taken directly from the patient: growth factors for long term culture; culture on yeast and liver dialysates; fractionation of dialysates of liver extracts. Homo sapiens (Primates)

WOLFF, ET. C.; D.Sc., Prof. – Inst. d'Embryol., Coll. de France, 11 place M. Berthelot, 75 PARIS Ve, France

a Culture in vitro of longue durée of tumours maligne in presence et en l'absence d'organes embryonnaires. Homo sapiens (Primates) (with Em. WOLFF)
b La différenciation et l'intersexualité in vitro et in vivo des gonades embryonnaires par les hormones des antagonist des antitestostérone et des anticorps. (Aves)


a Cellular basis of morphogenesis and pattern formation in limb development. Gallus domesticus (Aves)

WOLTZ, P.; Dr spéc. – Lab. de Morphogen. Végét., Univ. d'Aix-Marseille III, Fac. St-Jérôme, rue Henri Poincaré, 13397 MARSEILLE Cedex 4, France

a Morphogenesis of composite leaves: 1. correlations between the different leaf parts; 2. regeneration following various primordium lesions. Gleditsia triacanthos (Leguminosae)


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


a Mechanics and treatment of hydrocephalus. Oryctolagus cuniculus (Lagomorpha), Homo sapiens (Primates)
b Investigation on reasons for malfunction of Opitz-Halter valve. Same species as a

WOYE, J.; Dr.iabl., Prof. — Bee Div., Agric. Univ., 02-766 WARSZAWA 13, Ursynów, Poland

a Developmental genetics; sex determination and development of diploid drones. Apis mellifera (Hymenoptera)
b Development of reproductive organs and spermatogenesis of diploid drones (larval and pupal stage). Same species as a
c Polyploidization of tissues during development of haploid and diploid drones and of queens and workers. Same species as a
d Developmental genetics. Apis cerana (Hymenoptera)
e Comparative study of embryonic development and hatching. Apis florea, A. cerana indica, A. dorsata (Hymenoptera)

WRBA, H.; Dr.med., Dr.rer.nat., Prof. — Inst. für Krebsforsch., Univ. Wien, Borschkegasse 8a, Postfach 72, 1090 WIEN, Austria

a Stoffwechsel in vitro. (Rodentia)
b Eihautbildung, Differenzierung und Missbildung in vitro. (Rodentia)
c Heterotransplantation. (Rodentia)
d Diaplastenare Carcinogenezis. (Rodentia)


a Regeneration of transplanted thyroid gland, especially role of C-cells. Cavia porcellus (Rodentia)

WUHRMANN, P.; Dr.chem. — Inst. of Cell Biol., Swiss Fed. Inst. of Technol., Hönggerberg, 8093 ZÜRICH, Switzerland

a Ion determination. (Chironomidae, Diptera)

WURSTER, B.; Dr.rer.nat. — Abt. Zellbiol., Biozentrum der Univ., Klingelbergstr. 70, 4056 BASEL, Switzerland

a Stimulation of cell development by chemical signals; chemotaxis, oscillations. Dictyostelium discoideum, Polysphondylylum violaceum (Acrasiales)


a RNA and DNA metabolism during oogenesis and in early embryos. Gallus domesticus (Aves)
b Differentiation of primordial germ cells. Xenopus laevis (Anura)
c Genes for rRNA in oocyte and embryo. Same species as a

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

a Somatic cell genetics. Drosophila spec. (Diptera)

WYSS, U. R.; Dr. — Inst. für Pflanzenkrankh. und Pflanzenschutz, Techn. Univ., Herrenhäuser Str. 2, 3 HANNOVER-Herrenhausen, B.R.D. (Germany)

a Film analysis of embryonic development, especially cleavage pattern and hatching behaviour. Trichoderma similis, Longidorus elongatus (Nematoda)


a Development of the pseudobranch (electron microscopy, histochemistry). Poecilia reticulata (Teleostei)


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


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)

ZAAVER, Ms. J. J. P.; Ph.D. — Lab. for Cell Biol. and Histol., State Univ., c/o Acad. Hosp., Rijnsburgerweg 10, LEIDEN, Netherlands

a Hormonal activity of fetal gonads and adrenal glands with regard to the development of the reproductive tract (organ culture). Cavia porcellus (Rodentia), Homo sapiens (Primates)

ZABORSKI, P. — Lab. d’Embryol. Exp., Ctr. de Rech. du CNRS, 67 rue Maurice Günsbourg, 94200 IVRY sur SEINE, France

a Cyto-génétique et immunologie de la différenciation sexuelle des gonades. Melodus punctatus (Anura), Pleurodeles waltl (Urodela)
Resistance and adaptation of the early embryo. Testudo graeca, T. horsfieldi, Emys orbicularis and others (Chelonia), Gallus gallus, Anas domesticus, Coturnix coturnix and others (Aves)

ZÜST, Ms. B.; Ph.D. – Inst. de Zool., Univ. de Fribourg, Pérolles, 1700 Fribourg, Switzerland

Development of bristles and bract induction. Drosophila melanogaster (Diptera)

Maintenance of determined state of imaginal discs after culture in vitro and transplantation in vivo. Same species as a
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* ZACCONE, G. - Prof.
DONATO (CELI), Ms. A. - Asst.
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Institution</th>
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<tr>
<td>CONTINI, Ms. A.</td>
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<td>PANNESE, E.</td>
<td>Prof.</td>
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<td>PORCELLI, Ms. F.</td>
<td>Prof.</td>
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<td>Fac. of Sci., Inst. of Genet.</td>
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<td>BARIGOZZI, C.</td>
<td>Prof., Dir.</td>
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<td>HALFER, Ms. C.</td>
<td>Asst.</td>
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<td>FACCI (DOLFINI), Ms. S.</td>
<td>Asst.</td>
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<td>MOSNA, Ms. G.</td>
<td>Res. fellow</td>
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<td>BAFFONI, G. M.</td>
<td>Prof.</td>
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<td>BERTOLANI, R.</td>
<td>Asst.</td>
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<td>BENEDETTI, I.</td>
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<td>TREVISAN, P.</td>
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<td>Napoli, Univ., II. Fac. of Med., Ist. di Anat. Umanna Norm.</td>
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<td>GHIARA, G.</td>
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<td>Ist. e Museo di Zool.</td>
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<td>MONROY, A.</td>
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<td>ROSATI (LAMPARIELLO), Ms. F.</td>
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<td>Pisa, Univ., Inst. of Genet.</td>
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<td>CIONINI, P. G.</td>
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<td>MANCINO, G.</td>
<td>Prof.</td>
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<td>BARSACCHI (PILONE), Ms. G.</td>
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<td>NOBILI, R.</td>
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<td>BENAZZI, M.</td>
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<td>MAZZA, M.</td>
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* BULMER, D. - Prof.
* PEEL, Ms. S. - Sen. Lect.
Wessex Neurol. Centre
* ILLIS, L. S. - Sen. Lect.

ISLE OF MAN

Port Erin, Univ. of Liverpool,
Dept. of Marine Biol.,
* NAYLOR, E. - Prof.
* WILLIAMSON, D. I. - Reader

NORTH IRELAND

Belfast, Queen’s Univ.,
* YOUNG, B. A.

SCOTLAND

Aberdeen, Univ.,
* SOLOMON, J. B.
* MYLVAGANAM, R. - Res. Asst.
Marischal Coll., Dept. of Anat.
* CLEGG, E. J. - Prof.
* MCKENZIE, J. - Reader
* DYER, H. McM. - Lect.
* SEDDON, B. - Lect.
* DOUGLAS, A. H. M. - Lect.
* MacMILLAN, Ms. G. J. - Lect.
* WHITE, Ms. J. - Res. Off.
Dundee, Univ., Med. Sci. Inst.,
Dept. of Anat.
* DICK, D. A. T. - Prof.
* SMART, I. H. M. - Sen. Lect.
* MANN, S. L. - Lect.
* STURROCK, R. R. - Lect.
* WEALEY (SHAW), Ms. B. - Lect.
Dept. of Biochem.
* DUTTON, G. J. - Reader
* CAMPBELL, Ms. M. T.
* WISHART, G. J.
Edinburgh, Agric. Res. Council,
Poultry Res. Ctr.
* EVANS, A. J.
* GILBERT, A. B.
* PERRY, Ms. M. M.
Edinburgh, Med. Res. Council,
* FLSDALE, T. R.
Edinburgh, Univ.
* CAMPBELL, J. C. - Lect.
CLAYTON (FREEDMAN), Ms. R. M. - Sen. Lect.
* JACOB, I. - Lect.
* JONES, K. W. - Lect.
* JURAND, A. - Lect.
* LUCEY, E. C. A. - (cinematogr.)
* ROBERTSON (PATON), Ms. E. M. - Exp. Off.
* SELMAN, G. G. - Lect.
* TRUMAN, D. E. S. - Lect.
* JOHN, H. A. - Postd. Fellow
* PRITCHARD, D. J.
* THOMSON, I.
* JACKSON, J. F.
* de POMERAI, D. I.
Dept. of Molec. Biol.
* FORD, P. J.
* DARBROUGH, C. H. - Res. Fellow
Med. School, Dept. of Physiol.
* SUMNER, Ms. B. E. H.
* PRESTIGE, M. C. - Lect.
Dept. of Obstet. - Gynecol., Horm. Lab.
* BAKER, T. G.
* BURGOYNE, P. S. - Res. Fellow
Dept. of Zool.
* TUFT, P. H. - Lect.
SAUNDERS, D. S. - Lect.
PAUL, J.
HARRISON, P. R.
WILLIAMSON, R.
Glasgow, Univ.
Fac. of Sci., Dept. of Cell Biol.
* CURTIS, A. S. G. - Prof., Head
* EDWARDS, J. G. - Lect.
* MOORES, G. R. - Lect.
* EVANS, C. W. - Res. Fellow
Dept. of Physiol.
* BALLARD, K. J.
Dept. of Zool.
* NEWTH, D. R. - Prof.
* DOWNIE, J. R.
* ULLMANN, Ms. S. L.
* FLINT, O. P. - Res. Asst.
Glasgow, Univ. of Strathclyde,
* PANTELOURIS, E. M.
LINDSAY, Ms. F. E. F. - Sen. Lect.
THOMAS, D. B. - Prof., Head

WALES

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

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

U.S.S.R.

KULIKOVA, Ms. N. I. - Head
KUDOKOTSIG, V. P. - Reader
HELFENBEIN, L. L. - Reader
Kiev, Acad. of Sci. of the Ukraine,
* MAZHUGA, P. M. - Prof., Head
Kutaisi, State Univ. of Tbilisi,
Lab. of Exp. Zool.
GOSICHETELIANI, I. S. - Head
Leningrad, State Univ.,
* PERSOV, G. M. - Dir.
* SAKUN, Ms. O. F. - Sen. Sci. Worker
* FALEEVA, Ms. T. I. - Jun. Sci. Worker
* ZUBOVA, Ms. S. E. - Jun. Sci. Worker
* GUREEVA-PREOBRZHENSKAYA, Ms. E. V. - Jun. Sci. Worker
* CHMILEVSKY, D. A. - Jun. Sci. Worker
Biol. Fac., Dept. of Embryol.
* TOKIN, B. P. - Prof., Head
* IVANOVA (KASAS), Ms. O. M. - Prof.
* KOROTKOVA, Ms. G. P. - Head Lab.
* GABAJEVA, Ms. N. S. - Docent
* KRITCHINSKAYA, Ms. E. B. - Docent
* POLTEVA, Ms. D. G. - Docent
* PYILLO, Ms. I. V. - Collab.
* EFREMTOVA, Ms. S. M. - Collab.
* MALIKOVA, Ms. I. G. - Collab.
* SVYATOGOR, G. P. - Asst.
* BALAKHONOVA, A. V. - Collab.
* ALEKSEIEVA, Ms. N. P. - Collab.
Moscow, Acad. of Med. Sci. of the USSR,
Inst. of Human Morphol.
* VYAZOV, O. E. - Prof., Head Lab.
* LIOSNER, L. D. - Prof.
* BABAYEVA, Ms. A. G. - Sen. Scient.
ORLOVA, Ms. I. I. - Sen. Scient.
* ROMANOVA, Ms. L. K. - Sen. Scient.
* RYABININA, Ms. Z. A. - Sen. Scient.
* SIDOROVA, Ms. V. F. - Sen. Scient.
BARABANOV, V. M. - Sen. Scient.
* VERBICKY, M. S. - Sen. Scient.
* KARLOVA, Ms. G. V. - Jun. Scient.
* MURASHOVA, Ms. A. I. - Jun. Scient.
* TIMASHKEVICH, Ms. T. B. - Jun. Scient.
* MOLOTKOVA, Ms. L. F. - Res. Asst.
* EFFIMOVO, E. A.
* IVANOVA, V. I. - Prof., Head

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

* BRADAMANTE, Z. - Asst.
Inst. of Pathol.
* DAMJANOV, I.
* BELICZA, M.
* RODÈ, B. - Prof.
* LUI, A. - Prof.
* ŽNIDARIĆ, Ms. D. - Asst.
* KRALJ, N.
* PIRKIĆ, A.
Fac. of Sci., Dept. of Biol.
* JELASKA, Ms. S. - Res. Asst.
NOTE new headings, particularly for work on plants and unicellular organisms, on next page!

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

Headings are printed in capitals. New headings are listed on the next page. Headings generally come under one of the following categories:
1) Structures, e.g. organs, tissues, cells
2) Substances or classes of substances
3) Developmental stages, processes, and factors (including metamorphosis, regeneration, developmental genetics, reproduction, developmental pathology)
4) Techniques appearing as headings are: Chemical microanalysis, Culture & preservation, Immunochemistry, Irradiation, Microcinematography, Rearing methods, Transfer (Blastocyst, etc.), Transplantation, Ultraviolet Irradiation, Vital staining, X-Irradiation. Other techniques will be found as subheadings (see below).

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

Subheadings
Headings having less than ca. 10 names of investigators usually lack subheadings.
The same research subject may be listed more than once under the same heading, e.g. under a structure and a technique.
Subheadings come under one of the following categories:
1) Entities subordinate to the heading
2) Entities related to the subject of the heading
3) Techniques, disciplines, and processes. These are often chosen from the list appearing on the next page; some of these terms are also used as headings – the resulting redundancy is unavoidable; it is considered rather an advantage because it provides several entrances to the same subject.
4) Developmental stages; see the list on the next page.
5) Links with other entities, such as “effect on . . ., effect of . . ., interactions with . . .”.

Animal and Plant Names
Throughout the index Classes (and in some cases Phyla) are used exclusively. Exceptions are: the use of Homo for work on the human species, and the use of Orders under some general headings: Development (general), Development (larval), Development (post-embryonic, fetal), Embryology (general & descriptive), Embryology (physiological), Life cycles, Regeneration, Reproduction.
Those who are looking for work on a specific taxonomic group are advised to start with the headings of a general nature, such as Asexual reproduction, Development, Embryology, Life cycles, Metamorphosis, Morphogenesis, Regeneration, Reproduction, etc.

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

New Headings
Amitosis
Apical Dominance
Cell Death
Cell Wall
Chalones
Cyst & Encystment
Development (Plant: general)
Development (Unicellular organisms: general)
Dormancy
Egg Coverings
Embryology (Plant: experimental)
Flower(ing)
Free-martin(s)
Fruit(ing)
Hermaphroditism
Hormones (plant)
Implantation
Intersexuality
Leaf

Subheadings often used under various headings
Techniques and disciplines
Autoradiography
Biochemistry (incl. techniques)
Biophysics
Culture in vitro
Cytology
Descriptive study*
Endocrinology
Enzymes
Experimental study*
Function
General study*
Genetics

Processes
Development*
Differentiation
Functional differentiation (maturation)
Growth
Induction
Involution (regression)
Malformations

Stages
Early stages
Egg
Embryo
Fetus
Larva
Neonate

Mammary Gland
Meristems
Osmoregulation
Parasitism
Photomorphogenesis
Phyllotaxis
Root
Salivary Gland
Seed (& Germination)
Sex Differentiation
Sex Reversal
Shell (body covering)
Shoot
Silk Gland
Spore (& Sporulation)
Synapse
Vascular Tissue
Vitellogenesis
Viviparity

Histology
Histo-& cytochemistry
Immunology
Irradiation
Microcinematography
Molecular Biology
Morphology
Physiology
Theoretical study
Tracer study
Transplantation
Ultrastructure

Metamorphosis
Morphogenesis
Necrosis (cell death)
Pattern formation
Pathology
Regeneration
Teratogenesis

Oocyte
Oogenesis
Placenta
Postnatal
Spermatogenesis

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

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

ABORTIONS
see Malformations; Pathology

ACCESSORY SEX GLANDS
see Reproductive system

ACTIN
see Muscle(s)

ACTINOMYCIN
see also Antibiotics

Insecta  Truckenbrodt

ACTIVATION
see Fertilization

ADAPTATION
see also Environmental factors; Phylogenesis

Amphibia  Briegleb
Aves  Zusman
Homo  Boer

Insecta  Chauvin

Mammalia  Boer
Reptilia  Zusman
Teleostei  Durand
Vertebrata  Durand

ADHESIVE GLAND
see Gland(s)

ADIPOSE TISSUE(S)
see also Lipid(s)

Aves  Dyer
Insecta  Labour
Mammalia  Mayer

ADRENAL GLAND
see also Cortisone; Insulin; Steroids

cortex  Mammalia
culture in vitro  Homo

Mammalia  Bukulya
Gyevai

experimental study  Mammalia
function  Amphibia
Pehlemann
Homo  Bukulya
Geyvai
Bukulya
Gyevai

histochemistry  Mammalia
mediulla  Mammalia
pathology  Gabriel
ultrastructure  Amphibia
Pehlemann
Homo  Bukulya
Gyevai
Bukulya
Bielanska
Gyevai
Klepac
Mikovic
Paunovic
Peruzovic
Verhofstad
Verhofstad

AGE (AGING)

Homo  Salamatina
Mammalia  Jones

effect on wound  Homo  healing
Mammalia  Raekallio
fibroblast in vitro  Mammalia  Van Gansen
reflexes  Mammalia  Cadilhac

AGGREGATION
see Cell(s)

AIR BLADDER
see Lung(s)

AIR SACs
see Lung(s)

ALIMENTARY TRACT
see Digestive tract

ALKYLATING AGENTS

ALLANTOIS
see Embryonic membranes

AMINE(S)
see also Neurotransmitters

Echinidea  Brachet

AMINO ACID(S)
see also Neurotransmitters

Amphibia  Anton
Echinidea  Toneby
Euglenophyceae  Salvador
Homo  Challier
Insecta  Chen

Mammalia  Choroszewska
Pankowska
Safanda

AMITOSIS

Amniota  Vahs
Amphibia  Pehlemann
Homo  Pehlemann

AMNION
see Embryonic membranes

ANABIOSIS
see Diapause

ANDROGENESIS
see Genetics

ANESTHESIA

Homo  Lansdown
Mammalia  Lansdown

ANEUPLOIDY
see Heteroploidy

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

ANOMALIES (early development)
see also Pathology; Teratogenesis

lethal factors
Insecta  Scriba

ANOMALIES (later development)
see Malformations
see also Teratogenesis

ANOxia
see Respiration

ANTIBIOTICS
see also Actinomycin

Amphibia  Stagni
Ciliata  Vannini
Insecta  Golinska
Teleostei  Duke
Vertebrata  Truckenbrodt

ANTIBODIES
see Immunology

ANTIGENS
see Immunology

ANTIMETABOLITES

Amphibia  Namur
Aves  Meiniel
effect on cell cycle  Boon
Gastropoda  florouracil
Insecta  Duke
oogenesis  Amphiaba
Teleostei  Pays
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<thead>
<tr>
<th>BLOOD VESSELS</th>
<th>see Vascular system; specific organs, etc.</th>
<th>see also Circulation</th>
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glycogen
Ascidiacea: D'Anna
Aves: Meiniel
Mammalia: Jost
Teleostei: Benedetti

glycoprotein
Aves: Kemp
hexose
Homo: Challier
mucopolysaccharides
Aves: Romanova

Echinodermata
Mammalia
nervous system: Benedetti
Teleostei: Chalier
placental transfer: Dhainaut
Homo: Hammond
Polychaeta: Meiniel
spirophora: Clavert
fungi: New
teratogenesis: Sveijcar
Aves: Meiniel
Mammalia: Clavert

CARCINOGENETIC AGENTS
see also Tumori(s)
Amphibia: Ces
Echinoda: Ces
Mammalia: Elger

CARTILAGE
Aves: Gumpel
Homo: Kenne
Teleostei: Rinaudo
Mammalia: Bradamante

biophysics
Aves: Sherbet
Insecta: Seydewitz

chemotaxis
Acrasiales: Kakebeeke

contact
Acrasiales: Kakebeeke

pluripotent
Aves: Belousoff
Mammalia: Downie

Echinodermata
Gastropoda: Pannese

Mollusca: Pannese
Tunicata: Pannese

Gastropoda
Mammalia: Kemp
Porifera: Moreau

Aves: Curtis
Mammalia: Edwards
Insecta: Jones
Acrasiales: Kemp

ascension & teratogenesis
Amphibia: Burgess

Aves: Grunz
Mammalia: Garcia

Aves: Gerisch
Insecta: Kakebeeke

Aves: Konijn
Insecta: Malchow
Mammalia: Englander

Aves: Smith
Insecta: Stanssneet

Aves: Patricolo
Mammalia: Curtis

Aves: Edwards
Insecta: Meller

Aves: Meller
Insecta: Parsons

Echinodermata
Mammalia

Aves: Lakshmi
Insecta: Sherbet

Echinodermata
Mammalia

Aves: Curtis
Insecta: Salamatina

Aves: Tumanishvili
Mammalia: Vittorelli

Echinodermata
Mammalia

Aves: Bertini
Mammalia: Comoglio

Echinodermata
Mammalia

Aves: Clayton
Mammalia: Dunn

Aves: Heath
Insecta: Los

Aves: Lucey
Insecta: Pritchard

Aves: Roest
Insecta: Salamatina

Aves: Tumanishvili
Mammalia: Buznikov

Echinodermata
Mammalia

Aves: Buznikov
Mammalia: Monroy

Echinodermata
Mammalia

Aves: Mutolo
Mammalia: Shmukler

Echinodermata
Mammalia

Aves: Guerrier
Mammalia: Verdonk

Echinodermata
Mammalia

Aves: Guerrier
Mammalia: Kemp
migration

Amphibia
Leford
Gipouloux
Loftberg

Aves
Bellairs
Christ
Hach
Jacob
Le Douarin
Portch
Puelles

Mammalia
Marty
Haaram

Teleostei
McKenzie
Vittorelli
Halper

molecular biology
Aves
Echinodermata

Insecta
movement
Acrobatica
Aves
Durston
Flint
Kemp
Middleton
Moore
Sengel
Wakely

Gastropoda
Jones
Molluscs
Mammalia
Bouchard
Mammalia
Sara

mutant
Aves
recognition
Aves
Evans
Garrod
Kemp
Garcia

Insecta
Mammalia
Robert

shape
Aves
England
Wakely

size
Amphibia
Koop

Chlorophyll
surface
Ap Gwynn
Augusti
Kilarski
Lakshmi
Sherbet

Amphibia
Geusens
Tencer
Yamada

Aves
Chiquet
Curtis
Evans
Mestres
Moore
Van Roelen

Insecta
Mammalia
Johnson
Surani

tissue recognition
Cudennec

CELL CYCLE

Acrobatica
Amphibia
ap Gwynn
Ashworth
Anton
Bereiter
Lohmann
Mitashov
Sladecek
Yamada
Lindenmayer
Gotzos

Angioplasmatophyta
Aves
Ciliata
Crustacea
Eumicetozoa
Gastropoda
Homo
Mammalia

Bluemink
Laat
Lombard
Moolenaar
Nelemans
Saag
Wijk

CELL DEATH

Aves
Menkes
Caplan
Hinchliffe
Hurle
Lanot
Ojeda
Pannese
Pautou
Paxidermata
Tosic

Insecta
Mammalia

Cullen
Paxidermata
Bautz

Insecta
Mammalia

Caplan
Paxidermata
Bautz

CELL DIVISION

see Cell(s); Mitosis

CELL FUSION

see also Cell heredity

Aves
Bogenmann
Luger

Homo
Giannelli
Bernard
Halper

Insecta
Mammalia

Austin
Bogenmann
Luger

CELL HEREDITY

see also Cell fusion

Insecta
Morata
Moss
Ripoll
Santamaria
Wyss

CELL-LINEAGE

see Embryology (experimental)

CELL RENEWAL

see Regeneration (physiological)

CELL WALL

see also Membrane

Fungi
Raevn
Sietzma
Wessels

CENTRAL NERVOUS SYSTEM

see also Brain; Neural crest;
Neural plate; Spinal cord

Mammalia
Pilleri

Aves
Mammalia

behaviour
Mammalia

biochemistry
Teleostei

biophysics
Aves
Mammalia

changes after stimulation
Mammalia

connections
Mammalia

culture in vitro
Amphibia

Aves
Mammalia

embryonic motility
Aves

function
Amphibia
Mammalia

Chaloupka

functional differentiation
Homo

genetics
Insecta
Mammalia

histochemistry
Mammalia

karyotype
Mammalia

Mammalia

Maurer

Mammalia

Microcinematography
Aves

myelin
Homo
Mammalia

necrosis
Aves

Physiology
Mammalia

Sedlacek

Slovenia

Stafellini

Strudel

Lanot

Berry

Lierse

Maurer

Slovenia

Stafellini

Menkes

Wender

Ojeda
neural tube

Aves
Peters
Jurand
Menkes
Strudel

Mammalia
Morris
Jurand

Rodentia

neuroglia

Aves
Stasny
Tesch
Illis
Kozik
Lierse
Martty
Mularek
Sturrock

Mammalia

physiology

Aves
Sedlacek
Auroux

Mammalia
Berry
Illis
Horder

Vertebrata

regeneration

Mammalia
Brändle

relation to sense organs

Amphibia

role of neurons

Mammalia
Corner

spinal motor column

Amphibia
Szekely

teratogenesis

Aves
Alexandru
Checieu
Lanot
London

Mammalia

ultrastructure

Aves
Meller
Ojeda
Meller

Mammalia

vascularization

Aves
Tudose
Gambla

Homo

CENTRIFUGATION

see Embryology (experimental); Embryology (physiological)

CEPHALOGENESIS

see Head

CEREBELLUM

see Brain

CHALONES

Amphibia
Brugal
Homo
Richter

CHEMICAL ELEMENTS

see also Ions

arsenic
Musci
Simola

calcium
Amphibia
Duncan
Nijweide
Aves
Simkiss
Simkiss
Mammalia
Nijweide

fluorine
Aves
Van Toledo
Ilies
Mammalia
Simola
Musci
Tewari

heavy metals
Amphibia
Palladini
Crustacea
Pihan
Musci
Simola
Turbellaria
Palladini

eon
Amphibia
Chalumeau
Homo
Chalumeau
Mammalia
Chalumeau

lead
Mammalia
Wide

lithium
Amphibia
Englander
Koebke
Staniisstreet
Wall

nitrogen
Amphibia
Schultheiss
oxygen
Aves
Musy
Mammalia
Lierse

strontium
Aves
Nijweide
Mammalia
Nijweide

CHEMICAL MICRO-
ANALYSIS

CHEMICALS (biologically active)

see specific chemicals

(Anibiotics; Antimitotic agents etc. etc.; Chemical elements; Drugs; Ions;
Teratogenesis

CHEMORECEPTORS

Amphibia
Amphibia
Fox
Aves
Mammalia
Drucker

CHIMERAS

Amphibia
Boucaut
Jotereau
Le Douarin
Martin
Starre
Teillet
Mammalia
Buehr
Elbling
Johnson
Lyon
McLaren
Mystkowska
Papaloianou
Sailer

CHONDROCRANIUM

Homo
Becker
Gathamann
Mammalia
Rajtova

CHONDROGENESIS

see Cartilage

CHORDA

see Notochord

CHORION

see Placenta

see also Embryonic mem-

branes

CHOROID PLEXUS

see Brain

CHROMAFFIN CELLS

CHROMATIN

see Chromosomes

CHROMATOPORE(S)

Amphibia
D’Anna
La Spina
MacMillan

CHROMOSOMES

see also Cytogenetics

abnormalities
Homo
Barnes
Tudose
Mammalia
Barnes
Cappannini
Niemierko
Tarkowski
Withowska

banding pattern
Amphibia
Bailly
behaviour
Mammalia
Snow
biochemistry
Arachnida
Tempelaar
Insecta
Ribbert

chromatin
Amphibia
MacLean
Aves
Ficq

Echinoidea
Appleby
Geraci
Arachnida
Janderi
Tamanishvili

Homo
Bacchus
Mammalia
Schmidt
Insecta
Kral

Tamanishvili

constrictions
Amphibia
Bailly
culture in vitro
Insecta
Dennhofer
development
Insecta
Deri
elimination
Turbellaria
Camenzind
Insecta
Ashburner

function
Insecta

heterochromatin

Amphibia
Bailly
Insecta
Faccio

Mammalia
Tatra
Kinsky
irradiation
Amphibia
Jaylet
Arachnida
Tempelaar
Mammalia
Franchi

karyotype
Insecta
Ribbert
Mammalia
Fraser
DRUGS (& other biologically active chemicals)
see also specific classes of agents (Antimitotic agents etc.); Teratogenesis; Thalidomide; Pesticides

alcaloids
Aves Schowing
Mammalia Mercier Schowing Tuchmann

anticonvulsant
Mammalia Mercier Tuchmann

barbiturates
Aves Ojeda
Mammalia Nyitray Szaszoszky

cyclophosphamide
Homo Brun Mammalia Brun

effect on breathing
Homo Gensser Mammalia

effect on early embryo
Aves Doskocil

effect on embryo
Amphibia Sala

effect on fertility
Mammalia Tuchmann

effect on fetus
Mammalia Tuchmann

effect on heart
Mammalia Charbonne Perissel

effect on implantation
Homo Jiricka Mammalia Jiricka

effect on neural tube
Aves Jurand Mammalia Jurand

effect on placenta
Homo Jiricka Mammalia Jiricka

effect on regeneration
Aves Balakhonov Mammalia Joseph

ethacrynic acid
Mammalia France

hypolipidemic
Mammalia Szaszoszky

immunodepressors
Aves Balakhonov

LSD
Mammalia Muller

mutagenesis
Mammalia James

neuroleptic
Mammalia Mercier Tuchmann

neuromuscular blocking
Mammalia Shoro

neuropharmacology
Homo Challier Guerre Nandakumaran

neurotoxic
Mammalia Baumgarten

neurotropic
Aves Jurand
Mammalia Jurand

nucleic acid blocking
Mammalia Raedler

perphenazine
Mammalia Druga

phenobarbital
Mammalia Druga Nytiray

psychotropic
Mammalia Schloit

relaxant
Aves Jurand
Mammalia Jurand

reserpine
Aves Barastegui Mammalia Mercier Tuchmann Barastegui

Turbellaria

strychnin
Amphibia Gulluni Santoro

teratogenesis
Aves Jelinek Jurand Ojeda Dostal Druga James Jelinek Jurand Mercier Nyitray Shoro Szaszoszky Thesleff

Mammalia

test
Aves Jelinek Dostal Jelinek

theophylline
Mammalia France

veratum
Amphibia Gulluni Santoro

EAR
see Auditory organ (& external ear)

ECTODERM
see Embryology (experimental); Embryology (general & descriptive)

EGG(S)
see also Blastocyst; Cleavage; Culture & preservation; Fertilization; Gradient; Oogenesis; Transfer (blastocyst, etc.); Yolk

actin
Asciidiae Puccia

aging
Mammalia Szollosi Szollosi

albumen
Aves Gerlinger

architecture & development
Insecta Went

atresia
Mammalia Byskov

autoradiography
Gastropoda Bolognani Botkoe Bolognani

Mollusca
biochemistry
Amphibia Brachet Pays

Asciidiae D’Anna
Echinoidae Cognetti
Insecta Gennser
Mammalia Alexandre Dhainaut
Polychaeta Whittingham
Teleostei Elbling

biophysics
Mammalia Franci
chromosomes
Mammalia Gaillard
comparative study
Homo

cortex
Mammalia Flechon Opas

cortical granules
Teleostei Scriba

culture in vitro
Amphibia Baltus

Mammalia Colombo Hanocq Stegner Zeilmaker

cytology
Mammalia Alexandre Elbling Kaufman Stegner Szoiloszi Szoiloszi

Teleostei

cytotoxicity
Amphibia Steinert

Homo Mammalia Ubbels

cytotoxicity
Polychaeata Peaucellier

cytoplasm transplantation
Amphibia Ubbels

cytoplasmic localisation
Gastropoda Dohmen

cytoplasmic segregation
Amphibia Ubbels
devel. after activation
Mammalia Whittingham

effect of benzopyrene
Amphibia Ceas

effect of enzymes
Polychaeata Peaucellier

effect of parasite
Insecta Papillon

endocrinology
Amphibia Colombo

Doree Guerrier

Asteroidae Doree Guerrier Coumbo

Teleostei Vertebrata Antila

energy reserve
Teleostei Kamler

enzymes
Crustacea Falugi

experimental study
Insecta Schnetter

formation
Cephalopoda Buckley

fusio
Asciidiae Farinella

gene transcription
Aves Imaizumi Scherrer Traut

Insecta
theoretical study

tracer study
Mollusca
Polarochaeta
triploid embryos
Mammalia

EMBRYOLOGY (general & descriptive)

see also specific stages;
Development (general);
Organogenesis

Acrania
Apterygota
Arachnida
Araneida
Artiodactyla

Asciacea
Carnivora
Cephalopod
Chelonia
Cladocera
Coleoptera
Collembola
Copepoda
Diplopoda
Heteropt
Homo
Hymenopt
Isopoda
Laccertilia
Malacostraca
Pantopoda
Phasmina
Polycheta
Porifera
Prosobranchia
Rodentia

Teleostei
Turbellaria
body form
Cetacea
comparative study
Asciacea
Hymenopt
culture in vitro
Aves
Mammalia
early stages
Aves

Coleoptera
Collembola
Crustacea

Mammalia
Billington
Dillon
Jenkins
Searle
Sellens
Smith
Modlinski

Rodentia
environmental factors
Coleoptera
Delay
Hubertie

microcinematography
Aves
normal table
Teleostei
Uroidea
periderm destroys shell
Teleostei
role of membrane
Amphibia
segment
Phasmida
segmentation
Brachiopoda
Phoroneida
staging
Rodentia
ultrastructure
Amphibia

Anura
Asciacea

Aves

Aves

Amphibia
Duncan
Guyot
Habrova
Nedvidek
Smith
Stansfield
Gipouloux
Dolcmascologo
Gianguza
Mancuso
Bellairs
Christ
Jacob
Vakaet

Collembola
Homo
Mammalia
Teleostei
Turbellaria

EmBRYOLOGY (physiological & biochemical)
see also specific stages;
Development; Energy;
Metabolism; Nutrition;
Respiration, etc.

Echinoidea
Homoptera
Rodentia
biochemistry
Amphibia
Asciacea
Aves
Crustacea
Echinoidea

Hydrozoa
Insecta
Mammalia
Amphibia

cell surface
Aves
cholinesterase
Mammalia
early stages
Mammalia
electrolytes
Aves
endocrinology
Mammalia
enzymes
Asciacea

Crustacea
Echinoidea
Insecta
histo- & cytochemistry
Acarin
Asciacea

Avicetra
Insecta
Mammalia

interact. morphogen-metab.
Echinoidea
Hydrozoa
molecular biology
Amphibia

Nimierko

EMBRYOLOGY (Plant: experimental)
see also Meiosis

adventitious embryo
Angiosp
antipodals
Angiosp
biochemistry
Angiosp

comparative study
Angiosp

culture in vitro
Angiosp

histro- & cytochemistry
Angiosp

effect of substances
Angiosp

embryo
Angiosp

embryo culture
Angiosp

Van Roelen
Drews
Kaufman
Simkiss
Kratochvil
Pijancker
Falugi
Minganti
Falugi
Falugi
Duspiva

Aves
Insecta
Mammalia

interact. morphogen-metab.
Echinoidea
Ostroumova
Ostroumova

Mammalia
metabolism
Polycheta

parthenogenesis
Mammalia

tracer study
Asciacea

Peaucellier
Kauffman

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Aves
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Moreau
Blanchet
Clayton
de Pomerenai
Pannese
Pritchard
Guerrier

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Echioidea
O'Dell
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Berti
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| contr by first & Actinopterygii | Lenique |  |
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Chlorophyc  Schweiger
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             Sconzo
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           Guillemont
           Gulluni
           Lindenmayer
           Neville
           Santoro

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Insecta  Daniil
           Dennoher
           Eeken
           Gaudecker
           Maehr
           Vossen
Mammalia  Lawson

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                 Ryczkowski
                 Schofer

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           Fox
           Whitlear
Annelida  Heimler
Aves  Heimler
Coeelomata  Saxod
Insecta  Larkin
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Vertebrata  Oksche

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See also specific sex organs: Reproductive system; Sex determination; Sex differentiation; Sex ratio; Sex reversal.

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<tr>
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### SEX HORMONES

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### SEX RATIO

See also Sexual development.

### SEX REVERSAL

See also Sexual development.

### SKIN

See also Carapace: Epidermis; Integument; Pigmentation; Wound healing.

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Homo
Murbach
Schroeder

regeneration
Mammalia
Artis

stereology
Homo
Murbach
Schroeder

tissue interactions
Mammalia
Thesleff

ultrastructure
Amphibia
Clemens
Homo
Thylstrup

toxins
see also Bacteria;
Teratogenesis
Amphibia
Gulluni
Santoro

Aves
Gabriel
Schawang

Insecta
Maisonhaute

Mammalia
Clavert
Gabriel
Schawing

TRACE ELEMENTS
see Chemical elements

TRACHEAL SYSTEM
TRANSFER (blastocyst, etc.)

Mammalia

Barnes
Brand
Checiu
Eckstein
Gulamhusein
Jirsova
Marston
Mercier
Roussel
Zeilmaker

TRANSPLANTATION
see also Immunology; Nucleus

Mammalia
Wroblewski
Steele
Kvinnland
Robert
Kvinnland
Delarue
Crnck
Skreb

head
Amphibia
Brändle

heteroplastic
Aves
Le Douarin
Wrb

homoplastic
Mammalia
Chevallier

immunology
Amphibia
Horton
Newth

interspecific
Aves
Baehny

limb
Amphibia
Brändle

method
Aves
Passaponti
Passaponti

pineal organ
Mammalia
Marraro
Robert

recognition
Mammalia
Makinen
Makinen
Makinen

skin
Homo
Deparis
Farinella
Chevallier

TROPHOBLAST
see Blastocyst

TUMOUR(S)
see also Carcinogenic agents; Teratoma(s)

Amphibia
Insecta
Mammalia
Mammalia
carcinogenesis in vitro
Mammalia
comparative study
Mammalia
culture in vitro
Homo
differentiation
Homo
embryo transfer
Mammalia
embryonic
Homo
embryonic carcinoma
Mammalia
epith.-mesench. interact.
Vertebrata
fetal enzymes
Mammalia
genetics
Insecta
germ cell
Mammalia
histology
Vertebrata
immunology
Aves
Aves
Aves

induction
Mammalia
interact. with embr. cells
Homo
Mammalia
neuroblastoma
Augusti
paraneoplastic phenomenon
Lakshmi

pigment
Amphibia
Homo
Mammalia
Aves
sarcoma
Beug
susceptibility & resistance
Mammalia
transformation
Aves
ultrastructure
Vertebrata
virus-induced
Mammalia
yolk sac
Mammalia

TWINS (& other multiple births)
Homo

ULTIMOBANCHIAL BODY
Aves
Blahser
Thesingh

ULTRASOUND
see also Environmental factors

Aves
Dyson
Mammalia
Lutz

ULTRAVIOLET IRRADIATION
see also Urogenital system

Gastropoda
Insecta
Mammalia

UMBILICAL CORD
see also Vascular system

URETER
see Urogenital system

URINARY BLADDER
see Urogenital system

URINARY SYSTEM
see Excretory system

UROGENITAL SYSTEM
see also Excretory system; Genital tract; Reproductive system

Amphibia
Aves
Mammalia
Ruano
Cambar
Duncker
Gabriel
Madjerek
Pleeging
Tejedo
Ramsay

Teleostei

UTERINE TUBE
see Oviduct

UTERUS

Mammalia
biophysics
Mammalia
Decidua
Homo
Mammalia
endocrinology
Mammalia
endometrial secretion
Mammalia
immunology
Mammalia
implantation
Mammalia
perinatal
Mammalia
physiology
Mammalia

secretions
Mammalia
stem cell
Mammalia
ultrastructure
Homo
Mammalia

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VAGINA
see Genital tract

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

Aves
Pexieder
Rickenbacher
Roncali

Homo
Kocova
Makinen
Mazhuga
Raekallio
Woollam

Mammalia
Abrunhosa
Becchetti
Buge
Chapron
Knudsen
Makinen
Mazhuga
Pexieder
Raekallio
Woollam

Viscera
Mammalia
Babayeva
Sidorova

VISCERAL SKELETON
see Skull (& visceral skeleton)

VITAL STAINING

VITAMIN(S)
Mammalia
Lendon
Peters

VITELLINE MEMBRANE
see Egg(s)

VITELLOGENESIS
see also Yolk

VITAL STAINING

XANTHOPHORES
see Chromatophore(s)

X-IRRADIATION
see also Irradiation; Radiomimetic agents

Amphibia
Alexandre
Di Grande
Jaylet
Peters

Arachnida
Tempeleaar

Aves
Beaupain
Fischer

Chondrostei
Chmilevsky
Faleva
Gureeva
Persov
Sakun
Zubova

Mammalia
Alexandre
Baker
Berry
Lierse

Teleostei
Chmilevsky
Faleva
Gureeva
Persov
Sakun
Zubova

Turbellaria
Bautz

VASCULAR TISSUE

Angiosp
Amer

Gymnosp
Denne

VASCULARIZATION
see specific organs, etc

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

VEGETATIVE NERVOUS SYSTEM
see Autonomic nervous system

VERTEBRAE (vertebral column)
Aves
Chevallier
Christ
Jacob
Lanot
Strudel

Mammalia
Theiler
Vertebrata
Hauser

WATER
Insecta
Chauvin

WING(S)
Aves
Amprino
Camosso
Bart

Insecta
Browaes
Lindemayer
Vrezen

VERTEBRAE (vertebral column)

VIRUS(ES)

Aves
Kilaraki
Beug

Crustacea
Legrand

Homo
Groscurth
Kistler
Tondury

Mammalia
Both
Groscurth
Kistler
Lansdown

Insecta

YOLK SAC
see Embryonic membranes

Amphibia
Decroly
Giorgi
Ignatjeva
Steinert

Aves
Carinci
Caruso
Evangelisti
Evans
Gilbert
Perry

Cephalopoda
Fioroni

Crustacea
Raineri
Bolognari

Gastropoda
Bottke
Fioroni

Insecta

Reptilia

Teleostei

YOLK
see also Egg; Nutrition; Vitellogenesis

Amphibia
Decroly
Giorgi
Ignatjeva
Steinert

Aves
Carinci
Caruso
Evangelisti
Evans
Gilbert
Perry

Cephalopoda
Fioroni

Crustacea
Raineri
Bolognari

Gastropoda
Bottke
Fioroni

Insecta

Reptilia

Teleostei

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

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

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

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

The Laboratory offers the following international facilities:

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

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

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

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

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

International Society of Differentiation

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

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

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

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

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

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

d) Hochstetter Collection, Wien
   Human embryos. Address: W. Zenker, Anatomisches Institut der Universität Wien, Währingerstrasse 13, Wien IX/68, Austria.
Membership List of the International Society of Developmental Biologists

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

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

**Books of readings:** containing reprintings of papers by various authors

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

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

Textbooks

1. N. J. BERRILL and G. KARP. 1976. DEVELOPMENT
McGraw-Hill, New York, etc. X, 566 pp., 332 figs., 3 tabs., subject index. $ 15.95, £ 10.85

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

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

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

2. C. F. GRAHAM and P. F. WAREING, eds. 1976. THE DEVELOPMENTAL BIOLOGY OF PLANTS AND ANIMALS
Blackwell, Oxford, etc. XII, 393 pp., 238 figs., 33 tabs., combined subject and taxonomic index. £ 7.75 (paper)

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

This is the first unified account of plant and animal development written for advanced undergraduate and graduate courses, at least in English. It was written by 20 predominantly British authors, established authorities as well as younger people. The starting point in selecting topics was that they would be treated in depth rather than giving comprehensive coverage at a general level; hence, topics were chosen both for their general bearing and for the amount of well-established information available on them. The editors have been very successful in integrating the chapters by introducing and summarising the
Parts and by extensive cross-referencing. Although there of course remain differences in style among the chapters, the result is a very readable and stimulating whole. The relatedness of plant and animal data is very well brought out throughout the text. Moreover, the treatment is as up to date as can be desired in such a collaborative undertaking.

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

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

3. 
P. J. HOGARTH. 1976. VIVIPARITY
Arnold, London. Studies in Biology no. 75. IV, 68 pp., 24 figs., 2 tabs. £ 3.00 (cloth), £ 1.50 (paper)

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

4. 
A. C. NEVILLE. 1976. ANIMAL ASYMMETRY
Arnold, London. Studies in Biology 67. IV, 60 pp., 51 figs., 5 tabs. £ 2.60 (cloth), $ 1.30 (paper)

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

5. 
de Gruyter, Berlin, etc. Sammlung Göschen Band 2601, 2602
Band II (1975) Bildung der Körpergrundgestalt. 238 pp., 47 figs., author and subject indexes. DM 19.80 (paper)
Band III (1976) Morphologische und histologische Differenzierung der Organe. 199 pp., 33 figs., author and subject indexes. DM 19.80 (paper)

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

Although the presentation of the older data remains excellent, there are curious gaps in the newer data. To mention a few examples: modern work on gradients in insects is 200
not represented; there is no mention of mesoderm induction in the amphibian blastula; the data on imaginal discs are mostly very old and data on homoeotic mutants are lacking; the information on polar granules in insects is scanty; and cellular metaplasia in amphibian lens regeneration is not mentioned. The selective reference list of some 260 titles reflects these and other gaps.

The books are well illustrated and have good glossaries.

Monographs

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

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

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

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

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

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

Books of readings

7. C. FULTON and A. O. KLEIN. 1976. EXPLORATIONS IN DEVELOPMENTAL BIOLOGY
Harvard Univ. Press, Cambridge, Mass., etc. XVI, 704 pp., numerous figs. and tabs., subject index (including authors of papers). $ 17.50, £ 11.90

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

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

The six main sections listed above are subdivided into 22 chapters. In most of these the
papers range from the late fifties or early sixties to the early seventies. The oldest papers are those by Spemann and Mangold ('24), Waddington, Needham and Needham ('33), and Dushane ('35). The last main section has chapters on the genesis of neural connections and on autonomous growth in plants (crown-gall tumour). Most of the research papers are on current animal developing systems, but there are also papers on Lilium (anthers), Blastocladia (spore germination), Dictyostelium (enzyme programmes), and various unicellular organisms and bacteriophages (self-assembly). Mammalian embryos are only considered in connection with the clonal origin of melanocytes.

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

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

Symposium reports

8. S. A. LEVIN, ed. 1974. SOME MATHEMATICAL QUESTIONS IN BIOLOGY. VI

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

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

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

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

The papers are arranged in four parts as follows: Mathematical and computer models of development (12 papers), Theory of L systems (17), Cellular automata theory (3), and Parallel graph generating and related systems (6). Almost all of the papers of direct developmental relevance are to be found in part one. These cover not only branching systems in plants but also a variety of animal developing systems and growth phenomena generally. Two or three papers in the other parts have some relevance to development beyond the strictly mathematical. Part four represents a very new field of research, which may be the first step towards the application of L systems in more than one dimension, in other words, to more complex patterns than those characteristic of linear branching structures.
PLANT DEVELOPMENT (general) (see also 2,6)

Treatises

10. W.BRAUNE, A.LEMAN and H.TAUBERT. 1976. PRAKTIKUM ZUR MORPHOLOGIE UND ENTWICKLUNGSGESCHICHTE DER PFLANZEN, zur Einführung in den Bau, das Fortpflanzungsgeschehen und die Ontogenie der niederen Pflanzen und die Embryologie der Spermatophyta
Fischer, Jena. 448 pp., 128 figs., subject and taxonomic indexes. 37.00 M., DM 39.00

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

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

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

Textbooks

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

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

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

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

Some new illustrations have been inserted and the reading lists have been updated.
13.
J.A. BRYANT, ed. 1976. MOLECULAR ASPECTS OF GENE EXPRESSION IN PLANTS

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

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

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

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

14.
M. E. CONKLIN. 1976. GENETIC AND BIOCHEMICAL ASPECTS OF THE DEVELOPMENT OF DATURA
Karger, Basel, etc. Monographs in Developmental Biology Vol. 12. X, 170 pp., 13 figs., 4 tabs., author and subject indexes. SFr. 75.00, DM 75.00, ca.$ 29.00 (paper)

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

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

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

15.
H. van den ENDE. 1976. SEXUAL INTERACTIONS IN PLANTS, the role of specific substances in sexual reproduction
Academic Press, London, etc. VIII, 186 pp., 38 figs., 26 tabs., combined subject and taxonomic index. £ 7.80

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

A lengthy introductory chapter places the subject in perspective and devotes considerable attention to hormone receptors and cell surface constituents in animal systems. The
rest of the book is taken up by a series of chapters of varying length which examine specific groups or species separately: Fungi (3 chapters), yeasts (1), algae (4), ferns (1), and flowering plants (1).

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

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

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

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

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

17. V. RAGHAVAN. 1976. EXPERIMENTAL EMBRYOGENESIS IN VASCULAR PLANTS
Academic Press, London, etc. Experimental Botany; an International Series of Monographs, vol.10. X, 603 pp., 156 figs., 17 tabs., author, taxonomic and subject indexes. £ 21.00, $ 46.00

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

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

The book is profusely illustrated with good line drawings and photographs (some of the electron micrographs are too darkly reproduced). The bibliography of close to 2,000 entries contains many titles in languages other than English and is up to date until 1974.
18. L. W. ROBERTS. 1976. CYTODIFFERENTIATION IN PLANTS, xylogenesis as a model system Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biology Series vol. 2. XIV, 160 pp., 34figs., 3 tabs., combined taxonomic and subject indexes. £ 8.00


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

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

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

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

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

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

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

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

The book has a very useful glossary.
Dissertations


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

22. R. LETOUZÉ. 1976. QUELQUES MANIFESTATIONS MORPHOGÉNÉTIQUES ET BIOCHIMIQUES DE L’ACTION DES LUMIÈRES MONOCHROMATIQUES SUR LE DÉVELOPPEMENT DU BOURGEON AXILLAIRE D’UNE BOUTURE DE SAULE. (SALIX BABYLONICA L.) EN CULTURE IN-VITRO

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

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

Monographs

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

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

Dissertations

24. J. P. NENON. 1977. ÉCOLOGIE ET BIOLOGIE DU DÉVELOPPEMENT D’UN ENTO-MOPHAGE POLYEMBRYONNAIRE; Ageniaspis fuscicolliis Thomson 1875 (Hyménoptère, Chalcidien, Encyrtidé)

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

Elsevier-North Holland, Amsterdam, etc. Developments in Cell Biology, Vol.1. XX, 317 pp., 145 figs., 12 pls., 35 tabs., subject index.

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

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

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


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

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

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

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

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

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

The first essay (by Schneiderman) is the longest and spans the entire field. Of the other contributions three deal with eggs and embryos, four with imaginal discs, and four with
pattern in later development (eye development, leg regeneration, the role of JH in pattern formation, and chromosome puffing and ecdysone). All papers are followed by brief discussions which are often illuminating. Most reference lists go well into 1976.

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

28.
H. M. McCAMMON and W. A. REYNOLDS, organizers. 1977. BIOLOGY OF LOPHOPHORATES

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

VERTEBRATE DEVELOPMENT (general)

Treatises

29.
B. LOFTS, ed. 1976. PHYSIOLOGY OF THE AMPHIBIA. vol. 3
Academic Press, New York, etc. XIV, 644 pp., 224 figs., 26 tabs., author, species and subject indexes. $ 58.50, £ 41.55

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

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

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

30.
F. S. RUSSELL. 1976. THE EGGS AND PLANKTONIC STAGES OF BRITISH MARINE FISHES
Academic Press, London, etc. XVI, 524 pp., 137 figs., 7 tabs., systematic and subject indexes. $ 19.50

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

After a series of brief chapters dealing in a general way with such matters as the egg and its development, the larva, the postlarva, and feeding habits, 40 families are taken up
in succession. Each of these chapters has a general introduction and then proceeds to characterise one or more, sometimes many species. Apart from the illustrations, documented information is provided for each species on some or all of the following topics: egg, larva, postlarva, food and feeding, rearing, growth rate, behaviour, and distribution. Strictly oceanic species and descriptions of young and fry are excluded.

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

Textbooks

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

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

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

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

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

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

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

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

Macmillan, New York; Collier Macmillan, London. X, 195 pp., 180 figs. £ 6.00 (paper)

The first edition of this atlas was reviewed in Gen. Embryol. Inform. Serv. 15, 1, 1973. No major changes have been made but 16 drawings and 27 excellent photomicrographs have been added. Gametogenesis has been extended to non-mammalian forms.
This new edition of a well-known students' guide has been somewhat extended. A brief chapter on human development has been added, as well as a 17-page chapter entitled Experimental embryology. This is entirely methodological in character; it suggests no specific experiments and does not discuss the results of such experiments.

Dissertations


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

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

Treatises

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

Contributors to vol. 1: Aitken, Beato, Bell, Borland, Ducibella, Johnson, Kaufman, O'Grady, Schultz, Surani, Tucker, Warner
Contributors to vol. 2: Atienza, Beato, Braude, Bullock, Canipari, Handyside, Izquierdo, Jenkinson, Johnson, Katz, Mangia, Overstreet, Rossant, Salomon, Sherman, Wudl

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

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

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

Textbooks

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

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

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

Fischer, Jena. 398 pp., 232 figs., 15 tabs., subject index. M 28.00

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

Wright, Bristol. Dental Practioner Handbook No.15. XIV, 163 pp., 106 figs., subject index. £ 5.00 (paper)

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

Monographs

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

This book deals almost entirely with the fetus and is therefore predominantly of interest to members of the medical profession. However, it can be of value as a work of reference to mammalian and human embryologists. Of the 37 contributors 29 are British or Commonwealth. The 26 chapters are compendious reviews with long reference lists and together provide almost complete coverage of our knowledge of human and mammalian
fetal life as the product of physiological and clinical research. Most of them are up to date until 1974 or '75.

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

42. I. R. PHILLIPS. 1976. THE EMBRYOLOGY OF THE COMMON MAMMOTSET (Callithrix jacchus)

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

Symposium reports

43. F. T. PERKINS and P. N. O'DONOGHUE, eds. 1975. BREEDING SIMIANS FOR DEVELOPMENTAL BIOLOGY
Laboratory Animals Ltd, London. Laboratory Animal Handbooks, vol. 6. II, 353 pp., 93 figs., 57 tabs., combined subject and taxonomic index. £ 12.00, $ 30.00

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

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

The book is well produced and illustrated.

44. D. F. ROBERTS and A. M. THOMSON, eds. 1976. THE BIOLOGY OF HUMAN FETAL GROWTH
Taylor & Francis, London. Symposia Soc. for the Study of Human Biology, vol. 15. X, 309 pp., 70 figs., 47 tabs., author and subject indexes. £ 6.50

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

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

The book is well produced and adequately illustrated.
Textbooks

45. C. R. AUSTIN and R. V. SHORT, eds. 1976. FORTPFLANZUNGSBIOLOGIE DER SÄUGETIERE. Band 1 Keimzellen und Befruchtung, aus dem Englischen übersetzt von G. Obe, U. Hollihn und B. Beek
Parey, Berlin, etc. Pareys Studientexte No. 6. 116 pp., 50 figs., 3 tabs., subject index. DM 25.00 (paper)

This is the translation of the first of an excellent series of five short texts first published in 1972. The reader is referred to our earlier reviews in Gen. Embryol. Inf. Serv. 15, 1 (1973).
The translation is competent and conscientious. The original beautiful illustrations are somewhat too darkly reproduced, thus occasionally losing some of their information content. One illustration has been replaced. The index has been greatly extended.

46. J. COHEN. 1977. REPRODUCTION
Butterworths, London, etc. XX, 356 pp., 86 figs., 17 pls., 11 tabs., combined subject and taxonomic index.

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

That the book arose out of lectures is apparent from its easy style. It is full of unorthodox ideas, often amusing, and occasionally provocative (especially in the sections dealing with social and cultural patterns.) The amount of embryology in the modern sense is naturally restricted and the chapters in question are slightly marred by some mistakes and inaccuracies. Particularly useful and informative are the chapters on larval forms, viviparity, life cycles and evolution.
The illustrations, both line drawings and photographs, are all original and on the whole very good. There is a good glossary. The 15-page reference list serves as an author index. The index is extensive (but does not include "induction").

Monographs

47. A. E. BEER and R. E. BILLINGHAM. 1976. THE IMMUNOBIOLOGY OF MAMMALIAN REPRODUCTION
Prentice-Hall, Englewood Cliffs. XVI, 240 pp., 31 figs., 3 tabs., subject index, $ 24.10, £ 15.15

Although this book is obviously of primary importance to medical students and members of the medical profession, it could be very useful to mammalian embryologists. It is a concise synthesis of the basic observations and principles in this field and is well suited for rapid orientation. Due to the limited documentation it is not suitable as a reference work.
The book is easy to read and the treatment is critical, as we may expect from such eminent authorities. In a series of 15 chapters of convenient length virtually all aspects pass in review. Eight chapters deal in one way or another with the period of gestation,
and one (briefly) with the ontogeny of immune responses. Each chapter has a selective reference list of one to a few dozen titles.

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

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

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

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

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


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

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

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

50. J. S. SCOTT and W. R. JONES, eds. 1976. IMMUNOLOGY OF HUMAN REPRODUCTION Academic Press, London; Grune & Stratton, New York. XXII, 476 pp., 58 figs., 26 tabs., subject index. £ 15.00, $ 32.75

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

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

The volume is well produced and adequately illustrated.
Symposium reports

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

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

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

The volume is very well produced and illustrated.

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

Dissertations

52. R. BAUR. 1977. MORPHOMETRY OF THE PLACENTAL EXCHANGE AREA

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

Symposium reports

Harvard Univ. Press, Cambridge, Mass. XII, 161 pp., 56 figs., 21 tabs., subject index. £ 11.25

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

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

The table of contents speaks for itself. All papers are authoritative reviews with varying emphasis on the authors' own research. Nearly all are of great interest to mammalian
embryologists. Several contain very useful surveys of relevant data in tabular form.
The book is attractively produced and illustrated mainly with photo- and electron micrographs.

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

**Treatises**

54.  
H. NISHIMURA and N. OKAMOTO, eds. 1976. SEQUENTIAL ATLAS OF HUMAN CONGENITAL MALFORMATIONS, observations of embryos, fetuses and newborns Igaku Shoin, Tokyo. VIII, 334 pp., 531 figs., subject index. $ 65.00, Y 16,000, Dfl. 160.00

This book, written by four Japanese authors, is mainly meant for clinicians as a guide to the supporting embryological evidence for congenital malformations. Some of the material, as well as the bibliography, may be of use to human embryologists. The book is based mainly on an autopsy population of some 6000 embryos (induced abortions) collected in Kyoto and some 6000 fetuses (mainly induced and spontaneous abortions) collected in Hiroshima.  
The bulk of the book consists of some 785 photographs and photomicrographs of mostly good quality, provided with descriptive captions. Most of these are of full-term fetuses or neonates, but there are a fair number of earlier stages among them. They are supplemented by brief texts considering, among other things, the pathogenesis and etiology (if known) of the malformations. The texts often have explanatory line drawings. In some of these the lettering, pointers and captions are somewhat inadequate. The malformations are arranged mainly according to organ systems.  
The bibliography covers 29 pages of small print and consists of literature cited in the text plus selected titles form the world literature. There are five pages of selected literature on normal human development, arranged by organ system. The book is well produced on glossy paper.

**Monographs**

55.  

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

We specifically mention the papers by Berry and Barlow on reproductive toxicity testing, by Beck on model systems in teratology, by Poswillo on mechanisms and pathogenesis of malformation, and by Wolpert on mechanisms of limb development and malformation.
56.

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

57.

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

58.

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

Symposium reports

59.
J. D. EBERT and M. MAROIS, eds. 1976. TESTS OF TERATOCENICITY IN VITRO North-Holland, Amsterdam, etc. 497 pp., 225 figs., 7 pls., 30 tabs. $ 61.25, Dfl. 150.00

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

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

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

Monographs ranging all mental developmental pathology, referrine cytogenetics and pathological aspects of reproduction, and genetics that lead to a better understanding of the development of the malformations. In recent years, references to mutagenicity and screening tests for carcinogenicity have been added. An effort has been made to include books, book reviews, symposia, conference proceedings, and abstracts from meetings.

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

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

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

Monographs

61.

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

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

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

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

The volume is well printed and superbly illustrated.

219

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

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

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

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

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

REGENERATION, RENEWAL

Textbooks

64. P. MATTSON. 1976. REGENERATION
Bobbs-Merrill, Indianapolis. XIV, 178 pp., 52 figs., subject index. $ 4.95 (paper)

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

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

The book is well illustrated. It has a list of Scientific American articles and extensively annotated book titles.
65.
L. V. POLEZHAEV. 1977. REGENERATION (in Russian)
Znanie, Moscow. Novoe v Zhizni, Nauke Tekhni, Ser. Biol. no. 6. 64 pp., 7 figs. 11k (paper)

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

66.
V. PREDA and O. CRĂCIOIU. 1976. THE REGENERATION OF TISSUES AND ORGANS IN VERTEBRATES (in Rumanian)

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

**Symposium reports**

67.
A. B. CAIRNIE, P. K. LALA, and D. G. OSMOND, eds. 1976. STEM CELLS OF RENEWING CELL POPULATIONS
Academic Press, New York, etc. XVI, 389 pp., 102 figs., 25 tabs., subject index. $ 18.00, £ 9.90

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

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

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

**Collections of papers**

68.
N. M. GORELIK, ed. 1976. PROLIFERATIVE PROCESSES AND REGENERATION (in Russian)
Publ. House Moscow Univ., Moscow. Transactions of the Moscow Soc. of Naturalists vol. 41. 184 pp., 44 figs., 31 tabs. 2R. 18K

A collection of review and research papers by Russian authors; biography of L. Y. Blacher; some other subjects; present status of the problem of regeneration (Liosner); compensatory growth of salivary glands (Babaeva et al.); liver regeneration in guinea pigs (Rjabinina et al.) lung regeneration in anuran tadpoles (Romanova et al.); fundus regeneration in rat (Timashkevich et al.); similarity of budding and regeneration in Hydra (Zamaraev); English summaries.
Summary of experiments by the author and other (mainly Russian) investigators on cranial vault, dental tissue and cardiac muscle in mammals; new data obtained with autoradiography and diffusion chambers; inducing factors and their nature; origin of regeneration cells; light micrographs and some electron micrographs of mostly reasonable quality; 16-page bibliography (11 pp. Russian - much older literature, most recent titles 1975/'76).

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

Treatises

70. G. GOTTLIEB, ed. 1976. NEURAL AND BEHAVIORAL SPECIFICITY

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

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

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

Textbooks

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

This text for dental students is written from a modern point of view, in which development, cell differentiation, cell biology and structure form an integrated whole. It could therefore be of interest to those biologists who are starting work on tooth development and related subjects.

Special features of the book are its numerous excellent line drawings (many with colour) and the chapter bibliographies consisting of carefully selected older and recent references from the world literature.
Although this book was written for undergraduate students it is so full of ideas that it makes delightful reading for any "mature" developmental biologist. Its illustrations, particularly the many scanning electron micrographs, are a joy to behold.

The advantage of a book such as this is that it can delve much more deeply into the subject than is possible in a comprehensive text. If this is moreover done in such an authoritative and thoroughly modern, yet critical and balanced manner, the result is most enjoyable. The treatment is of course selective but the examples are well chosen and the whole text is well integrated. Whether we move at the level of the organ, the tissue, the cell or the cell surface the sense of unity is never lost. The term "tissue interactions" is taken very broadly and encompasses the role of hormones, nerves, extracellular materials and cell coupling.

Other good features are the summary "concepts" (or rather "conclusions") at the end of each chapter and the annotated lists of readings. It is rather odd that no magnifications are provided for the electron micrographs. In fig. 14.5 two pictures are transposed and there are a number of annoying printing errors.

Monographs

73. T. PEXIEDER. 1975. CELL DEATH IN THE MORPHOGENESIS AND TERATOGENESIS OF THE HEART

Summary of author's own research (mainly on chick embryos) from 1968 to 1973 against the background of the literature and findings in rat and man; special emphasis on cell death in bulbar cushions; study of role of hemodynamics by aortic clipping and organ culture; teratogenic experiments; 23-page bibliography.

74. J. A. TUCKER et al. 1976. SURVEY OF THE DEVELOPMENT OF LARYNGEAL EPITHELIUM

Study of laryngeal epithelium in embryos (Carnegie stages 14-23), fetuses (10-36 wks.), neonate and adult; prenatal stages mainly with light microscopy, later stages with transmission and scanning electron microscopy.

75. M. WINICK. 1976. MALNUTRITION AND BRAIN DEVELOPMENT
Oxford Univ. Press., London, etc. XVI, 169 pp., 61 figs., 6 tabs., subject index. £ 5.00, $ 9.95


The table of contents of this monograph speaks for itself. The author has "tried to select the most important animal and human studies, to evaluate them, and to develop an
overall picture of the consequences of early malnutrition...[for] brain structure and function.

Because the present reviewer is not an expert, he feels he ought to say that not all competent reviewers have been equally enthusiastic about the book. It is something between an exhaustive review and a basic account, and should perhaps be contrasted with the equally recent but much longer book by Ph. R. Dodge and others on the same subject.

The book is attractively produced and has many clear graphs and diagrams.


Study based on two fetuses (48 and 55 mm. CRL) and two neonates; description of the skulls by region; reconstructions and micrographs; long bibliography.

Dissertations


Very complete experimental-morphological study on embryos and larvae from middle neurula onwards; many different experimental approaches; determination of intra-endodermal groove formation; axis determination and late regulative properties of the endoderm; action of chordo-mesoderm on endodermal differentiation; line drawings and photographic plates.


Based on four published papers, plus general introduction and discussion; day 10 of gestation to day 26 after birth; four enzymes studied; good histochemical micrographs and diagrams.


Normal development of the conus arteriosus and its ridges in the chick embryo (from st. 23 onwards); experiments involving insertion of pieces of shell membrane or local cauterisation; comparative embryology and anatomy of the conus in vertebrates; conclusions with regard to transposition of great vessels; many line drawings and diagrams, some photographs.
80. J. SMITH. 1977. QUANTITATIVE ANALYSIS OF SPONTANEOUS GROSS ELECTRICAL BRAIN ACTIVITY IN THE EMBRYONIC AND NEWLY HATCHED CHICK; quantification and scoring of EEG-activity in the developing chick by a mini-computer system

Development of EEG (recorded from accessory hyperstriatum) from stage 41 till two days post-hatching; quantitative analysis with three different computer algorithms; extensive computational methodology; comparison with cytological and biochemical literature data.

Symposium reports

Liss, New York. Birth defects: Original Article Series vol. XIII, 1. XII, 364 pp., 178 figs., 30 tabs., subject index. $ 35.00

This conference was held in West Germany some time during 1976 and was attended by 14 specialists from various Western-European countries and 11 from North America. The volume contains 20-odd medium-length reviews of recent research, mostly that of the contributors themselves. All of them are in English and all are followed by usually brief discussions. About half of them are of predominantly clinical interest.

The first ten reviews will be read with interest by all those working on limbs or on organogenesis generally. Among the aspects dealt with are developmental anatomy, histochemistry, collagen biochemistry, and various teratogenetic and genetical approaches, all of this in man and various mammals (occasionally chick) and with reference to different developmental periods.

The book is well produced and profusely illustrated. The numerous photographs and micrographs are well reproduced.

82. R. J. BLANDAU and D. BERGSMA, eds. 1977. MORPHOGENESIS AND MALFORMATION OF THE GENITAL SYSTEM
Liss, New York. Birth Defects: Original Article Series vol. 13, no. 2. XII, 161 pp., 73 figs., 11 tabs., subject index. $ 18.00

Contributors: Blandau, Jirásek, Jones, Josso, Jost, Wai-sum O, Ohno, O’Rahilly, Rajfer, Smith, Winter

This symposium was held in the U. S. A. in July 1976 and was attended by specialists from North America and various European countries (two groups from Paris). Of the ten short to medium-length, up-to-date reviews two are of exclusively clinical interest, the others are of interest to mammalian and human embryologists and teratologists.

The subjects covered range from sex determination and differentiation in germ cells, through morphogenesis of various parts of the human genital system, to various endocrinological aspects. No discussions are recorded.

The book is well produced and illustrated; most of the photographs and light micrographs are well reproduced.
This symposium was held in October 1974 in Tokyo. The 48 contributors are from many different countries, the majority from Japan and the United States. The contributions are for the most part brief research reports or surveys of recent research. Most focus on the application of relatively new techniques to embryonic heart muscle cells of birds and mammals, and all but a few are of interest to developmental biologists.

The 20 contributions deal successively with electron microscopy of heart cells \textit{in vivo} and \textit{in vitro}, with several aspects of membrane permeability and electrophysiology of heart cells, and with physiological correlates of heart muscle. Each contribution is followed by a carefully edited summary of the group discussion preceding it.

The book is luxuriously produced and profusely illustrated. The photomicrographs and electron micrographs are of high quality.


Five papers in French by French authors; introduction by Raynaud; sex differentiation in \textit{Emys} and \textit{Orchestia}; effects of hypothermia in chick; cell proliferation and organogenesis in amphibian larvae.


“Rudimentation” is a newly coined French word which is unfortunately ambiguous in English. It refers, not to “rudiments” as used in English, but to rudimentary organs and their origin. This symposium was held in Toulouse in September 1976 and was attended by specialists mainly from France, the United Kingdom and other West-European countries. Most contributions are brief reviews or summaries of recent work. They are either in French or in English and most have a summary in the other language. Most are followed by a brief group discussion.

Of the 33 main contributions more than two thirds are of interest to embryologists. Ten of these deal with limb development, the others with a variety of other organs in many different vertebrates. Eight papers deal with developmental inhibition due to hormonal factors, nine with disturbances of morphogenetic mechanisms, and three with chemically induced limb abnormalities. A concluding general discussion has a section on the term “rudimentation” and two contributions on phylogenetic aspects of chick limb development.

The volume is well produced and illustrated with good line drawings, photographs and light and electron micrographs.
Treatises

86.
G. POSTE and G. L. NICOLSON, eds. 1976. THE CELL SURFACE IN ANIMAL EMBRYOGENESIS AND DEVELOPMENT
North-Holland, Amsterdam, etc. Cell Surface Reviews, vol. 1. XXIV, 766 pp., 151 figs, 20 tabs., subject index. D.fl.220.00, § 89.95

Contents: Fertilization (Gwatkin), Cytokinesis in animal cells: new answers to old questions (Arnold), The implanting mouse blastocyst (Sherman and Wudl), Cell surface antigens in mammalian development (Edidin), The transport of molecules across placental membranes (Miller, Koszalka and Brent), On the mechanism of metazoan cell movements (Trinkaus), Inductive tissue interactions (Saxén, Karkinen-Jääskeläinen, Lehtonen, Nordling and Wartiovaara), Cell coupling and cell communication during embryogenesis (Sheridan), Transduction of positional information during development (McMahon and West), Cell interactions in vertebrate limb development (Ede), Heart development: interactions involved in cardiac morphogenesis (Manasek). Development and differentiation of lymphocytes (Goldschneider and Barton), In vitro analysis of surface specificity in embryonic cells (Maslow)

This first volume of a new series is an ambitious undertaking, but the result is impressive. All of the 13 extensive reviews are authoritative, comprehensive, well organised, and interestingly written. A good balance is struck between events at the tissue and cell level and those at lower levels of organisation.

In works such as this it is always possible to disagree with the choice of subjects. I personally feel the chapter on inductive tissue interactions is a bit too long, and I regret that no attention is devoted to neuronal specificity and to work on insect imaginal discs. The chapter on positional information is stimulating but, perhaps inevitably, very speculative in places. The chapter bibliographies are extensive and up to date until 1975.

The book is superbly produced and illustrated.

Textbooks

87.
N. MACLEAN. 1977. THE DIFFERENTIATION OF CELLS
Arnold, London. Genetics - Principles and Perspectives: a series of texts, vol. 1. VIII, 216 pp., 96 figs., 14 tabs., subject index. £ 12.00 (cloth), £ 5.95 (paper)

This book was written for advanced undergraduate and graduate students of genetics and cell biology. It is on the whole a successful, well-balanced synthesis from the viewpoint of cell biology; the presentation of embryological data is not always correct.

The style is stimulating and the conclusions are carefully formulated. The subject is developed logically on the basis of evidence from a broad variety of organisms, starting with the Protozoa. Equal attention is devoted to the genome and the cytoplasm. There are separate chapters or sections on the role of hormones, on the cell surface and cell contact, on episomes, viruses and abnormal genetic elements, and on cancer and differentiation.

The illustrations on the whole serve their purpose well, but some do not match the text entirely, or the legends are not extensive enough to bring complete understanding. The 15-page bibliography is of course selective but very useful. The books shows signs of inadequate proofreading.
Monographs

88. S. H. BARONDES, ed. 1976. NEURONAL RECOGNITION
Plenum, New York; Chapman & Hall, London. XVI, 367 pp., 104 figs., 13 tabs., subject index. $ 33.00

The significance of this book for developmental biologists is much greater than the title would perhaps suggest. Ever since the days of Harrison, Detwiler and Weiss the nervous system has been a paradigm for other developing systems. This book, by a team of predominantly American authors, expertly reviews the "state of the art" of the cellular and molecular aspects of neurogenesis.

The chapters of greatest interest to our readers are to be found in section I (Specificity in synaptic development and regeneration) and section III (Toward a molecular basis of neuronal recognition). We just mention some of the authors: Jacobson, Fambrough, Bunge in section I; Moscona, Roth, Toole, Barondes in section III. The contribution by Barondes and Rosen has the added interest of drawing a parallel between findings in cellular slime moulds and the nervous system.

89. G. BUTSCHAK. 1976. BIOCHEMISCHE GRUNDLAGEN DER TEILUNG UND DIF-
FERENZIERUNG VON NORMAL- UND TUMORZELLEN
Fischer, Jena. 348 pp., 40 figs., 4 pls., 3 tabs., subject index. M 39.00 (paper)

This monograph is a thorough, very comprehensive and critical review of the biochemical basis of cell division and cell differentiation. The more is the pity that it has taken so long to produce. It reflects the state of the field in the beginning of 1973, but so much has happened since that in many areas the author would have placed a different emphasis today. Nevertheless, for the literature prior to about 1973 it is a valuable reference work.

The book is in three well-organised main parts: Biochemistry of cell division, Bio-
chemistry of cell differentiation, and Regulation of cell division and cell differentiation in tumour cells. There are 12 subsections in all, which all have concise but clear summaries.

The book is produced in small offset print and is sparsely illustrated. The references number more than 850 in all.

90. T. P. EVGENEVA. 1976. INTERCELLULAR INTERACTIONS AND THEIR ROLE IN
EVOLUTION (in Russian)
Publ. House Nauka, Moscow. 222 pp., 77 figs., 10 tabs. 1R 20k

Review of studies of cell and tissue interactions in invertebrates as studied in diffusion chambers; morphogenetic capacities in vitro; lower and higher marine invertebrate phyla and Tunicates; role of the cell surface (SEM); 24-page bibliography (6 pp. Russian, up to date till 1975); many light and scanning micrographs of reasonable quality.

91. P. O. SEGLEN. 1974. DIFFERONES; control of gene expression and cellular differentia-
tion by hormones and other agents, with particular emphasis on liver tissue
Univ. Forlaget, Oslo, etc. Norwegian J. Zool., vol. 22, suppl. 1. 131 pp., 4 figs.

Survey and integration of information from various sources bearing on the control of gene expression; 10-page chapter on dynamic theory of differentiation, including classifi-
cation of "differones" (all agents capable of inducing differentiation, whether intra- or extra-cellular or environmental); 50-page review of actions of differones, with special reference to rat liver cells and hepatoma; some 1,600 references up to 1973.
92.

We briefly announce this volume in the interest of our readers, particularly those working on cellular slime moulds. The NATO Advanced Study Institute in question was held in Bellagio in September 1975. Six of the 32 research reports deal with Dictyostelium, particularly with cell-surface lectins and cyclic AMP receptors (one deals with a macro-molecular effector of cell differentiation). The authors are Barondes and Rosen and their group, Gerisch, Malchow et al., Town, and Darmon et al.

Other papers deal with sponge cell aggregation (Burger’s group), adhesion of neurons (Gottlieb’s group), and membrane components in differentiating muscle cells (Prives).

93.
N. MULLER-BERAT, ed. 1976. PROGRESS IN DIFFERENTIATION RESEARCH, proceedings of the Second International Conference on Differentiation, Copenhagen, Denmark, 8-12 September, 1975
North-Holland, Amsterdam; Amer. Elsevier, New York. X, 588 pp., 241 figs., 2 pls., 69 tabs., index to contributors and subject index. $ 46.25, Dfl. 120.00

This conference brought together a large number of workers from all over the world. Among the contributors were established authorities but also many younger people. Like the report of the first conference in this series the book is heterogeneous but provides a useful cross section of the many different approaches and systems being used at present. Most of the contributions are short research reports or reviews of recent work.

The 58 contributions are grouped into six sections as follows: Cell proliferation, growth and expression of differentiation potential by proliferating cells (9 papers); Regulation of gene activity and chromatin activity during cell differentiation (11); Cell membranes and cell surfaces in relation to differentiation (4); Aspects of carcinogenic disorders and differentiation (15); Hormonal induction of cell differentiation (7); Normal and malignant hemopoiesis as a model of differentiation (12). No group discussions are recorded.

The book is produced from typescripts in good offset print and profusely illustrated; the numerous photographs are well reproduced. The subject index is curiously deficient.

DEVELOPMENTAL BIOCHEMISTRY, MOLECULAR BIOLOGY (see also 13,16,25,62, 63,89,91,93)

Textbooks

94.
E. H. DAVIDSON. 1976. GENE ACTIVITY IN EARLY DEVELOPMENT. 2nd edit. Academic Press, New York, etc. XVI, 452 pp., 87 figs., 16 tabs., combined subject and species index. $ 18.50, £ 13.15

Contents: 1. Introduction: the variable gene activity theory of cell differentiation; 2. The onset of genome control in embryogenesis; 3. First indices of differential embryo

An indication of the enormous growth of the area covered by this book is the length of the bibliography, which has almost doubled since the first edition even though part of the original references have been deleted. The contents of the book have been considerably rearranged and the book is in fact almost a new one. We must be grateful to the author for undertaking this arduous task with such excellent results and without unduly increasing the size. That the treatment is basically organised around his personal views and interpretations is understandable and increases rather than decreases the book's value.

As in the first edition, the basic tenet is that regulation at the transcriptional level is the fundamental process underlying differentiation and development. This, and the emphasis on early stages, is probably the reason why a class of problems which are considered fundamental by many embryologists, i.e. induction, determination and competence, receive little or no attention as subjects in their own right. One hopes that these problems, though elusive at present, will also capture the attention of molecular embryologists in the years to come.

Apart from numerous extensions of the original material, the major new features are ch.4 and the first section of ch.6, which deals with nucleic acid sequence complexity and the kinetics of renaturation and hybridisation.

The book is attractively produced and illustrated. The 48-page bibliography is remarkably up to date. (An oddity is that Crawford and Wilde’s 1973 experiments with pactamycin in Fundulus are not included.) The absence of an author index is to be regretted; it would have been easy to use the bibliography for that purpose.

Monographs

95.
N. MACLEAN. 1976. CONTROL OF GENE EXPRESSION
Academic Press, London, etc. XII, 348 pp., 21 figs., 6 tabs., author and subject indexes. £ 7.80, $ 19.25


The level of treatment in this well-written book is between that of an introduction and that of a specialised monograph. For the student making up his mind on what research to embark on it is a stimulating guide. The main function it may perform for the specialist is to make him more aware of the advances in and the potential of systems other than that on which he happens to be working.

The main substance of the book is to be found in chapters 3-5. In ch.3 “system” means a particular type of protein; eight such proteins are discussed, ranging from immunoglobulins to vertebrate egg proteins and including two insect proteins. In chs. 4 and 5 “system” usually means a tissue, organ or organism, occasionally an approach or a class of proteins. Many phyla, both plant and animal, are represented.

The bibliography, though selective, covers 34 pages and is up to date until 1974. The book is attractively produced and illustrated.
Dissertations


Modified method for sequential and quantitative separation and determination of various components in frozen tissues; studies of protein synthesis with $^{14}$C-leucine; comprehensive developmental studies from 45 d. in utero till 42 d. postnatally; comparison with rat and other mammals.

DEVELOPMENTAL GENETICS, EVOLUTION (see also 87,94,95)

Monographs

97. A. McLAREN. 1976. MAMMALIAN CHIMAERAS
Cambridge Univ. Press, Cambridge, etc. Developmental and Cell Biology Series vol. 4. VI, 154 pp., 43 figs., 13 tabs., author and subject indexes. £ 8.00

By the time this review appears this monograph will have been completed three years ago, which is a long time in a rapidly moving field like this. Yet we may safely say that it will long remain a firm foundation to build on for those who are entering the field, as well as a great help for all mammalian embryologists.

The subject matter is subdivided into 11 short, readable chapters. Two of these deal primarily with experimental-embryological aspects, five with developmental genetics. The last of these is entitled Chimaeras versus mosaics. A separate chapter thoughtfully and critically discusses the distribution of cell populations in the embryo, in other words, the problem of “clones and patches”.

The book is beautifully produced and well illustrated. The 14-page bibliography ends in 1974, with the exception of the publications of the author and her associates. Three important papers published in 1975 have been added in proof. The subject index could have been longer; particularly unfortunate is the omission of “determination” and “allocation”.

98. R. MATSUDA. 1976. MORPHOLOGY AND EVOLUTION OF THE INSECT ABDOMEN, with special reference to developmental patterns and their bearings upon systematics
Pergamon, Oxford, etc. Internat. Series in Pure and Applied Biology, Zool. Div. vol. 56. VIII, 534 pp., 155 figs., taxonomic, author and subject indexes. £ 16.00, $ 35.00

The author of this exhaustive monograph has previously written two similar, though shorter works, one on the insect head (1965) and one on the thorax (1970). In the present work, however, more stress is placed on developmental aspects. Part I, which occupies 48 pages and discusses these aspects in a general way, is not restricted to the abdomen nor indeed to insects. It deals with various aspects of heterochrony and with substitution, homology and analogy of organs on the basis of the modern literature. It is odd that heteromorphosis or homeosis, for which some recent authors have suggested important roles in evolution, is not even mentioned in passing.

Part II (60 pp.) deals mainly with general aspects of abdominal segmentation, abdominal appendages, and external and internal genitalia. Finally, Part III covers the available data in the individual orders. In most orders some attention is devoted to the origin of the
germ cells. The musculature is not treated because the author is convinced that it is not important in establishing homologies.

The book is well produced and illustrated with numerous good line drawings. It has a bibliography of 71 pages.

Reference works

99. R. RIEGER, A. MICHAELIS and M. M. GREEN. 1976. GLOSSARY OF GENETICS AND CYTOGENETICS, classical and molecular. 4th completely revised edit. Springer, Berlin, etc. 647 pp., 100 figs., 8 tabs. DM 36.00, $ 14.80, £ 8.35 (paper)

It is a pleasure to announce a new edition of this well-known glossary. The tremendous development of the field since 1968 is reflected in a size increase of some 150 pages. About half of the text has been completely rewritten. One seldom turns to the book in vain. After spending an hour with it the only serious omissions this embryologist (!) could find were "germinal granules" and "sturt".

DEVELOPMENTAL PHYSIOLOGY (incl. endocrinology, immunology, behaviour, etc.)
(see also 27,29,41,44,47,50,51,70,72,75,80,91,93)

Textbooks

100
M.-Th. CHALUMEAU. 1976. PRÉCIS D'IMMUNOLOGIE

This is a well-written and well-organised introductory text. The reason why we review it here is that it contains several sections which could be useful to students and others interested in developmental immunology.

Part One deals with the fundamentals of the immune reaction and its technical, biochemical and cellular aspects. Part Two treats the immune reaction in the living organism. It contains brief accounts of the development of immune competence and of the immune system (including cellular differentiation). Part Three, entitled The immune reaction in the laboratory, has a final section on the application of immunological techniques to the problem of cellular differentiation.

Although authors' names are frequently used in the text, the bibliography is restricted to nine recent books and articles. The book is illustrated with good line drawings and diagrams and has a useful glossary.

Monographs

101.
B. L. MIRKIN, ed. 1976. PERINATAL PHARMACOLOGY AND THERAPEUTICS
Academic Press, New York, etc. XII, 455 pp., 38 figs., 31 tabs., subject index. $ 24.50

Contents: 1. Placental transfer of pharmacologically active molecules (Mirkin and Singh); 2. Drug biotransformation reactions in the placenta (Juchau); 3. Disposition of drugs in the fetus (Waddell and Marlowe); 4. Pharmacologically induced modifications of behavioral and neurochemical development (Thorburg and Moore); 5. Clinical implications of perinatal pharmacology (Yaffe and Stern)

This book was written by an all-American team of experts. It consists of five well-organised reviews which discuss critically and in depth the main areas that are currently under active investigation in this field. Areas where the amount of data was considered in-

232
sufficient to allow of substantive conclusions were omitted.
The table of contents above speaks for itself. Ch. 5 has a 6-page section on teratogenic effects of drugs. The chapter bibliographies run up to 1972/73, with occasional updatings. They reflect the rather strong bias towards literature published in English which is common in books by Anglo-Saxon authors.
The book is well produced and adequately illustrated.

102. P. W. NATHANIELSZ. 1976. FETAL ENDOCRINOLOGY, an experimental approach North-Holland, Amsterdam, etc. Monographs in Fetal Physiology, vol. 1. XIV, 261 pp., 72 figs., 13 tabs., subject index. Dfl. 75.00, $ 30.75

This monograph is a thorough and critical review of fetal endocrinology against the background of sequential data obtained from the chronically catheterised sheep fetus. The author carefully evaluates the similarities and differences between the sheep and other experimental mammals and man, and devotes much attention to the criteria of physiological normality during experiments.

After a general introduction and a chapter on methodology the subject matter is treated partly by organ systems (testis, hypothalamo-hypophysial-portal system, thyroid - two chapters of which one on ruminants - and neurohypophysis), and partly by hormones. A final chapter deals with parturition and the feto-placental unit. An appendix lists methods for the calculation of the production rate of fetal hormones. The endocrinology of carbohydrate and intermediary metabolism will be dealt with in a subsequent volume of the series.

The book is luxuriously produced; it is illustrated mainly with graphs and line drawings. The bibliography numbers over 600 titles; I do not know whether this reflects the actual state of things, but it is striking that it contains almost no non-English titles.

Dissertations

103. X. CHARDONNENS. 1976. LA TOLÉRANCE AUX ANTIGÈNES D'HISTOCOMPATIBILITÉ PENDANT LA MÉTAMORPHOSE DE L'AMPHIBIEN ANOURE, XENOPUS LAEVIS: un modèle pour l'étude de la tolérance au self

Study on larval, metamorphic and adult stages, using skin grafts, mixed lymphocyte reaction and agglutination reaction; conclusions regarding major and minor histocompatibility systems; evidence for tolerance during metamorphosis.

Symposium reports

104. M. DURCHON, organizer. 1976. ACTUALITÉS SUR LES HORMONES D'INVERTÉBRÉS

This international symposium took place in Villeneuve d'Ascq in September 1975. The majority of the participants were from various European countries (with France predominating), but a dozen came from North America. The stress lay on the biosynthesis, metabolism and cellular action of invertebrate hormones. Of the 50 contributions at least ten may be of interest to developmental biologists. These deal with hydroids, planarians, annelids (3), molluscs, and insects (5). Three deal specifically with oogenesis in Perinereis and Octopus.

The papers are in French or English but all have summaries in both languages. The volume is illustrated with line drawings.
105.
L. I. GILBERT, ed. 1976. THE JUVENILE HORMONES
Plenum, New York, etc, X, 572 pp., 141 figs., 116 tabs., subject index. $ 54.00

Parts: I. Chemistry of the juvenile hormones and juvenile hormone analogs; II. Biosynthesis and metabolism of juvenile hormone; III. Juvenile hormone effects at the cellular level; IV. Juvenile hormone effects at the molecular level (binding and transport); V. Effects of juvenile hormone at the molecular level (protein synthesis)

This symposium was held in Lake Geneva, Wis. in November 1975. Although it is evidently of major significance to insect endocrinologists, at least one third of it is of importance to developmental biologists. The participants came mainly from North America and Western Europe. Most of the contributions are medium-length research reports; some contain considerable review material; much of the material was unpublished at the time of the symposium. Each of the five parts listed above is preceded by a most useful and interesting summary of about half a dozen pages.

Almost all of the eight papers in Part III are of direct interest to workers in insect morphogenesis. Most focus on the interaction between JH and ecdysone. Among the contributors we mention the following: Krishna Kumaran, Riddiford, Oberlander, Masner, Lezzi, Willis, and Sehnal. A paper by Fristrom et al. in Part V deals with Drosophila imaginal discs.

The book is produced in good offset print and adequately illustrated.

106.
M. LÜSCHER, ed. 1976. PHASE AND CASTE DETERMINATION IN INSECTS, endocrine aspects
Pergamon, Oxford, etc. VIII, 130 pp., 34 figs., 24 tabs., £ 7.50, $ 15.00

Contributors: Brian, de Wilde, Hales, Hrdý, Lüscher, Rembold, Rösele, Steel, Velthuis

The notion of an involvement of hormones (particularly JH) in phase and caste determination is a relatively recent one. This symposium, which was held in Washington DC some time during 1976, was devoted to this notion. Most of the contributors came from Western Europe (one each from Australia and Canada). The introductory paper was contributed by Lüscher. Nine of the ten main contributions are reviews in English of recent work on various bees, ants, termites and aphids. The paper by Hrdý is only an abstract.

In the interest of rapid publication the papers were reproduced direct from the typescripts and no attempt was made to reduce overlap. The book is adequately illustrated; it has no indexes.

METHODS (no entries, but see 58,96,102)

HISTORY, BIOGRAPHIES, etc.

Monographs

107.
D. J. HARAWAY. 1976. CRYSTALS, FABRICS, AND FIELDS. metaphors of organicism in twentieth-century developmental biology
Yale Univ. Press, New Haven, etc. X, 231 pp., combined subject and name index. $ 15.00

The argument in this book hinges strongly on Thomas Kuhn's controversial ideas concerning the evolution of science. The author regards the twentieth-century switch from mechanicism to organicism as a paradigm change in the Kuhnian sense. This aspect of the
book will appeal most to the professional historian and philosopher of science.

However, quite apart from such issues the bulk of the book will be of great value to those embryologists who are interested in the origin of the ideas and concepts they are using, and generally to all biologists who want to be conscious of the more philosophical context of their often automatic or traditional ways of thinking. And it cannot be denied that a concept such as morphogenetic field, though pronounced meaningless by some, is still considered useful and even indispensable by many others.

The part of the book to which I am referring consists of chapters 2-5. Ch.2 is a thoughtful brief essay on the origins and elements of organicism. The other three chapters lucidly review the intellectual development of three great men of the era in question: Ross G. Harrison, Joseph Needham, and Paul Weiss. These make delightful reading for anyone even remotely interested.

The book is attractively produced but is disfigured by rather many printing errors. It has no illustrations. The most recent references (e.g. Thom, Wolpert) do not include the definitive published works of these authors. The long index conforms to scholarly standards.

MISCELLANEOUS ITEMS (no entries)