

identification Jaki proposes to jettison in favor of "commonsense realism." Jaki argues, correctly I think, that Duhem's epistemological views on physical theory and his historical interests emerged as a function of his ongoing work as a physicist. As Jaki stresses, Duhem's aim for physical theory was a classification of experimental facts that, changing progressively with time, would move from an artificial to a natural classification reflecting ontological reality or truth in the formalism of mathematics.

Duhem made fundamental contributions that have decisively influenced views in the history and philosophy of science. His refutation of the possibility of a crucial experiment is an example of his innovations in epistemology. In the history of science, he discovered medieval mechanics and developed a persuasive argument against the conception of 17th-century "scientific revolution." His historical work described the slow and continuous development of mechanics and put Leonardo da Vinci at its midpoint. Jaki has argued elsewhere (*The Origin of Science and the Science of Its Origin*, 1978) Duhem's claim that the crucial step in the birth of science was the rejection in the Middle Ages of the astrological and organismic worldview of the Greeks. Thus, modern science began when the Bishop of Paris condemned 216 Aristotelian propositions in 1277. In fact, several generations of students of the history of science have focused on this thesis as one of the principal interpretations of the origin of science. Duhem's work continues to provide stimulating debates in the history and epistemology of physical theory, and herein lies the genius, however uneasy, of his legacy.

MARY JO NYE

*Department of the History of Science,
University of Oklahoma, Norman 73019*

Some Other Books of Interest

Possums and Gliders. ANDREW SMITH and IAN HUME, Eds. Published in association with the Australian Mammal Society by Surrey Beatty, Chipping Norton, N.S.W., Australia, 1984. xvi, 598 pp., illus., + plates. \$52. Based on a symposium, Arredale, Nov. 1983.

The Australian Mammal Society celebrated its 25th anniversary with a symposium, and this large-format volume printed on glossy paper and including 22 colorplates commemorates the event. The volume opens with a foreword by John Calaby and a brief taxonomic intro-

duction by Smith discussing the current classification of the possums, gliders, and koala, formerly lumped as Phalangidae, into more numerous families. The first set of symposium papers, grouped under the heading Evolution and General Biology, covers subjects ranging from molecular and cytological relationships through survival and reproductive strategies (eight papers). There follow groups of somewhat disparate papers reporting or reviewing research on members of the various families: Phalangidae (ten papers), Pseudocheiridae (11 papers), Petauridae (seven papers), Burramyidae (six papers), Tarsipedidae (four papers), and Phascolarctidae (the koala; one paper). Finally, a group of ten papers deals with matters bearing on conservation and management. Some of the papers include résumés in Spanish. A 15-page key and field guide and an index conclude the volume. The papers in the volume were refereed prior to publication, and the volume has been published without any financial guarantee from the Society.—K.L.

Primate Evolution and Human Origins. RUSSELL L. CIOCHON and JOHN G. FLEAGLE. Benjamin/Cummings, Menlo Park, Calif., 1985. x, 396 pp., illus. \$29.95.

This volume is a compilation of 44 papers by numerous authors that appeared in other books or in journals from 1961 to 1983. The papers, which are presented "in mostly unedited form," are grouped under seven headings: Primate Origins; Evolution of Prosimians; Anthropoid Origins and New World Monkeys; The Evolution of Old World Monkeys and Apes; *Ramapithecus* and Human Origins; Early Hominids; and Diverse Approaches in Human Evolution. Within each group the papers are arranged more or less chronologically "to show how the debates and opinions on primate evolution have evolved," and the compilers have provided a brief introduction to each group. There is a combined bibliography of almost 2000 items, but an index has not been provided. The endpapers of the book give a chart of major events in primate evolution and a map showing sites of major fossil finds.—K.L.

Books Received

Andean Ecology and Civilization. An Interdisciplinary Perspective on Andean Ecological Complementarity. Shozo Masuda, Izumi Shimada, and Craig Morris, Eds. University of Tokyo Press, Tokyo, 1985 (U.S. distributor, Columbia University Press, New York). xxxii, 550 pp. \$44.50. Papers

from Wenner-Gren Foundation for Anthropological Research Symposium no. 91. From a symposium, Cedar Cove, Fla., May 1983.

Anger and Hostility in Cardiovascular and Behavioral Disorders. Margaret A. Chesney and Ray H. Rosenman, Eds. Hemisphere, Washington, D.C., 1985. xvi, 294 pp. \$39.95. Series in Health Psychology and Behavioral Medicine. From a workshop, Menlo Park, Calif., Jan. 1983.

The Arts at a New Frontier. The National Endowment for the Arts. Fannie Taylor and Anthony L. Barresi, Plenum, New York, 1984. xvi, 271 pp. \$29.50. Nonprofit Management and Finance.

Infection, Immunity, and Blood Transfusion. Roger Y. Dodd and Lewellys F. Barker, Eds. Liss, New York, 1985. xxvi, 464 pp., illus. \$68. Progress in Clinical and Biological Research, vol. 182. From a symposium, Washington, D.C., May 1984.

Injury in America. A Continuing Public Health Problem. National Academy Press, Washington, D.C., 1985. xii, 164 pp., illus. Paper, \$15.95.

Inorganic Chromatographic Analysis. John C. MacDonald, Ed. Wiley-Interscience, New York, 1985. xiv, 450 pp., illus. \$65. Chemical Analysis, vol. 78.

Inorganic Solid Fluorides. Chemistry and Physics. Paul Hagenmuller, Ed. Academic Press, Orlando, Fla., 1985. xvi, 629 pp., illus. \$99. Materials Science and Technology Series.

Insights into Personal Computers. Amar Gupta and Hoo-min D. Toong, Eds. IEEE Press, New York, 1985. xii, 380 pp., illus. \$29.50.

Integrated Optics. H.-P. Nolting and R. Ulrich, Eds. Springer-Verlag, New York, 1985. x, 242 pp., illus. \$27.50. Springer Series in Optical Sciences, vol. 48. From a conference, Berlin, May 1985.

The Intellectual and Social Organization of the Sciences. Richard Whitley. Clarendon (Oxford University Press), New York, 1985. x, 319 pp. \$34.95.

Introduction to Physical Anthropology. Harry Nelson and Robert Jurmain. 3rd ed. West, St. Paul, Minn., 1985. xx, 610 pp., illus. Paper, \$26.95.

An Irish Beast Book. A Natural History of Ireland's Furred Wildlife. James Fairley. Illustrated by Raymond Piper. 2nd ed. Blackstaff Press, Dover, N.H., 1984. xii, 334 pp. Paper \$8.95.

Mass Spectrometry of Heterocyclic Compounds. Q. N. Porter. 2nd ed. Wiley-Interscience, New York, 1985. xxvi, 966 pp., illus. \$250. General Heterocyclic Chemistry Series.

Proceedings of the Fifteenth Lunar and Planetary Science Conference. (Houston, March 1984.) American Geophysical Union, Washington, D.C., 1984 and 1985. Two volumes. viii, 853 pp., illus. \$100; paper, \$70. *Journal of Geophysical Research*, vol. 89 and vol. 90 (supplements).

Proceedings of the Second Symposium on the Geology of the Bahamas. (San Salvador, Bahamas, June 1984.) James W. Teeter, Ed. College Center of the Finger Lakes, Fort Lauderdale, Fla., 1984. vi, 296 pp., illus. Paper, \$16.

Progress in Medical Radiation Physics. Vol. 2. Colin G. Orton, Ed. Plenum, New York, 1985. xviii, 254 pp., illus. \$45.

Psychiatry. The State of the Art. P. Pichot *et al.*, Eds. Plenum, New York, 1985. Vol. 1, Clinical Psychopathology: Nomenclature and Classification. xxvi, 1122 pp., illus. \$125. Vol. 2, Biological Psychiatry, Higher Nervous Activity. xxiv, 961 pp., illus. \$95. Vol. 3 Pharmacopsychiatry. xxii, 860 pp., illus. \$87.50. Vol. 4, Psychotherapy and Psychosomatic Medicine. xx, 533 pp., illus. \$65. From a congress, Vienna, July 1983.

The Psychology of Childhood Illness. Christine Eiser. Springer-Verlag, New York, 1985. x, 212 pp. \$27.

The Role of Design, Inspection, and Redundancy in Marine Structural Reliability. D. Faulkner *et al.*, Eds. National Academy Press, Washington, D.C., 1984. viii, 579 pp., illus. Paper, \$34.50. From a symposium, Williamsburg, Va., Nov. 1983.

Safeguarding the Atom. A Critical Appraisal. David Fischer and Paul Szasz. Jozef Goldblat, Ed. Stockholm International Peace Research Institute, Solna, Sweden, and Taylor and Francis, Philadelphia, 1985. xx, 243 pp. \$29.

Safety of Dams. Flood and Earthquake Criteria. National Academy Press, Washington, D.C., 1985. xviii, 276 pp., illus. Paper, \$16.50.

Satellite Oceanography. An Introduction for Oceanographers and Remote-sensing Scientists. I. S. Robinson. Horwood, Chichester, England, and Halsted (Wiley), New York, 1985. 455 pp. \$59.95. Ellis Horwood Series in Marine Science.

Science and Politics. The Herbert Spencer Lectures 1982. Vernon Bogdanor, Ed. Clarendon (Oxford University Press), New York, 1984. viii, 120 pp., \$16.95.

Treatise on Heavy-Ion Science. D. Allan Bromley, Ed. Plenum, New York, 1985. Vol. 5, High-Energy Atomic Physics. xx, 498 pp., illus. \$79.50. Vol. 6, Astrophysics, Chemistry, and Condensed Matter. xxii, 429 pp., illus. \$69.50. Vol. 7, Instrumentation and Techniques. xxiv, 471 pp., illus. \$79.50.

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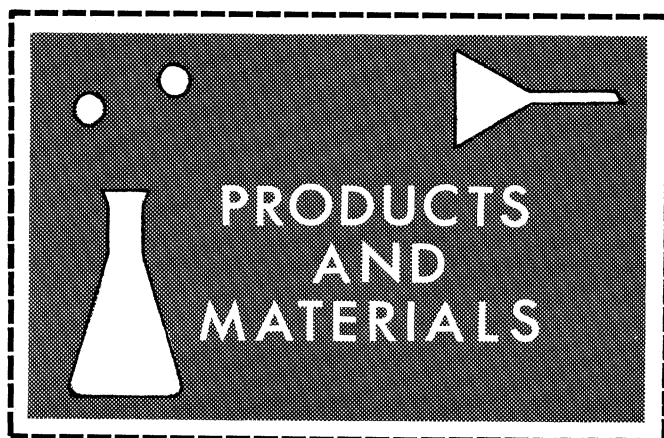
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Send curriculum vitae and list of three references to: **Dr. Merritt R. Nelson, Department of Plant Pathology, The University of Arizona, Tucson, Arizona 85721.** Application deadline is 1 December 1985.

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UNIVERSITY OF ARIZONA

Position in Plant Molecular Biology Faculty of Science and College of Agriculture

The Department of Molecular and Cellular Biology invites applications for a tenure-track position in the area of plant molecular biology. The level of the appointment is open and will be commensurate with the appointee's qualifications. This appointee will be physically located in close proximity to other plant molecular biologists. Greenhouses, plant tissue culture laboratories, and other appropriate support facilities are available within the Faculty of Science and the College of Agriculture.

Applications are invited from scientists with a record of originality, scholarship, and productivity. The successful candidate will be expected to develop an independent research program in an area of plant molecular biology and to participate in undergraduate and graduate teaching. Opportunities exist for interactions with faculty with related research interests.

Applicants should submit curriculum vitae, bibliography, a summary of future research plans, copies of representative publications or manuscripts, and should arrange for three letters of reference to be sent to: **Dr. Richard B. Hallick, Department of Molecular and Cellular Biology, Biosciences West 308, University of Arizona, Tucson, Arizona 85721.** Application deadline is 1 December 1985.

The University of Arizona is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology at Oberlin College invites applications for a full-time, continuing position beginning on 1 July 1986 with a 4-year appointment in the area of vertebrate anatomy/systematics. Teaching responsibilities will include participation in team-taught introductory evolutionary and vertebrate structure and function courses, and advanced vertebrate morphology, and/or diversity courses with laboratory. The incumbent will be expected to pursue an active research program incorporating quantitative and experimental approaches. Some teaching experience is expected. Annual salary will be commensurate with training and experience. A Ph.D. must be in hand or expected by June 1986.

Submit applications by 20 November to: **Dr. David H. Benzing, Chairman, Department of Biology, Oberlin College, Oberlin, Ohio 44074.** Include curriculum vitae, transcripts of both undergraduate and graduate work, plus at least three letters of reference.

Oberlin College has adopted an Affirmative Action Plan and, as an Equal Opportunity Employer, welcomes applications from female and minority candidates.

ASSISTANT PROFESSOR, EXPERIMENTAL PATHOLOGY

The Department of Pathology and Laboratory Medicine at Brown University is seeking an experimental pathologist for a campus-based, tenure-track position as assistant professor. The successful candidate is expected to develop an independent research program, supported by external funds, in a basic aspect of experimental pathology involving the pathogenesis of disease. The successful candidate will participate in the teaching of general or systemic pathology to medical students and the training of undergraduate and graduate students in experimental/environmental pathology.

An M.D., D.V.M., and/or Ph.D. degree and a minimum of 2 years of postdoctoral or residency research training in pathology are required. Preference will be given to M.D.'s with training in an area related to environmental pathology. Opportunities for the practice of clinical or anatomic pathology on a part-time basis are available at the Brown University-affiliated hospitals for suitable candidates.

Please send curriculum vitae, a description of career objectives and research plans, and the names of three references to: **Dr. Nelson Fausto, Chairperson, Department of Pathology and Laboratory Medicine, Division of Biology and Medicine, Brown University, Providence, R.I. 02912.** We encourage applications from women and minority candidates. *Brown University is an Equal Opportunity/Affirmative Action Employer.* Deadline for applications: 1 March 1986.

ASSISTANT PROFESSOR—INSECT PEST MANAGEMENT/FIELD CROPS (EXTENSION/RESEARCH). Tenure-track. Duties include extension (70 percent)—demonstration and implementation of insect pest management programs. Research (30 percent)—management of major insect pests of field crops. Send for full position description. Qualifications include a Ph.D. in entomology with training in insect pest management. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), and (iv) transcripts (postsecondary education), and (v) names and addresses of three references to: **M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline is 31 January 1986.

BIOCHEMISTRY POSITION

The Institute of Molecular Biology and the Chemistry Department at the University of Oregon seek a new faculty member in biochemistry as part of an expansion of our multidisciplinary program in cellular and molecular biology. Possible research interests include, but are not restricted to, enzymology, transport mechanisms, receptor biochemistry, immunology, membrane proteins, and assembly. We anticipate filling this position at the assistant professor level, although more senior candidates will be considered. The minimum academic year salary is \$24,500. Interested persons should forward curriculum vitae, statement of research interests, and three letters of recommendation to:

**Biochemistry Search
Department of Chemistry
University of Oregon
Eugene, Ore. 97403**

Closing date is 15 November 1985. *The University of Oregon is an Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR—ECOLOGY. Tenure-track position beginning September 1986. To teach introductory ecology course, one additional course each year, and participate in team-taught introductory biology course. To engage in research which encourages participation by undergraduates. College assists in initial research funding; facilities include marine and terrestrial field stations. Postdoctoral research experience preferred. Send curriculum vitae, statement of research and teaching interests, and three letters of reference by 8 November 1985 to: **Dr. William L. Steinhart, Department of Biology, Bowdoin College, Brunswick, Maine 04011.** *Bowdoin College is committed to Equal Opportunity through Affirmative Action and is especially eager to identify minority persons and women with appropriate qualifications.*

ASSISTANT PROFESSOR—INSECT PEST MANAGEMENT/FIELD CROPS (RESEARCH/TEACHING). Tenure-track. Duties include research (70 percent)—primary emphasis on developing management systems for major insect pests of field crops. Teaching (30 percent)—course and seminar in pest management. Send for full position description. Qualifications include a Ph.D. in entomology with training in insect pest management. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts (postsecondary education), and (v) names and addresses of three references to: **M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline is 31 January 1986.

ASSISTANT PROFESSOR OF MEDICINE (BIOENGINEERING)

The Cardiology Division, Beth Israel Hospital, invites applications for full-time faculty position at Harvard Medical School, starting on or before 1 July 1986. Candidates should have Ph.D. degree in engineering or physics, with expertise in digital signal processing and hardware/software development. Of particular interest would be a publication record in such areas as cardiovascular data processing, nonlinear dynamics, and image processing. Candidates should be interested in broad range of collaborative studies in the division as well as in development of independent research efforts. Send curriculum vitae to: **William Grossman, M.D., Chief of Cardiology, Beth Israel Hospital, 330 Brookline Avenue, Boston, Mass. 02215.** *Harvard University is an Equal Opportunity/Affirmative Action Employer.*

A full-time, nonfaculty **ASSOCIATE position in TEACHING and RESEARCH** is available starting 1 August 1986. The position involves teaching an undergraduate laboratory in animal diversity during the fall semester and research on insect behavior during the spring semester and summer. Applicants must have 1 year of postdoctoral experience in field research on insect behavior and some supervisory experience. Salary: \$16,500 per year. Send curriculum vitae and three letters of reference by 15 November 1985 to: **Dr. Mark D. Rausher, Department of Zoology, Duke University, Durham, N.C. 27706.**

BIOCHEMIST OR ORGANIC CHEMIST WITH INTEREST IN IMMUNOLOGY. Postdoctoral position available immediately to work on projects involving phospholipid synthesis, transition metal chelation. Studies involve radioimmunoassay of tumors using monoclonal antibodies and liposomes.

Send curriculum vitae and three references to: **Alison Estabrook, M.D., Department of Surgery, Columbia College of Physicians & Surgeons, 630 West 168 Street, New York, N.Y. 10032.**

CHAIRPERSON UNIVERSITY OF FLORIDA FRUIT CROPS DEPARTMENT Applicants from ALL AREAS OF PLANT SCIENCE are welcome

Applications are invited for the position of professor and chairperson. Candidates should have a Ph.D. in a related area of plant science and a commitment to excellence in research extension and teaching. The department has 19 faculty members, encompassing research from applied to highly fundamental areas, and active programs in teaching and extension. Applications, including curriculum vitae and names of three references, should be sent by 1 November 1985 to: **Dr. T. E. Crocker, Fruit Crops Department, University of Florida, Gainesville, Fla. 32611.** For additional information, telephone: 904-392-1658.



ICIPE

**THE INTERNATIONAL CENTRE OF
INSECT PHYSIOLOGY AND ECOLOGY
P.O. Box 30772, NAIROBI, KENYA.**

POST-DOCTORAL RESEARCH FELLOWSHIPS

The following Post-Doctoral Research Fellowships are available at the International Centre of Insect Physiology and Ecology (ICIPE). The Centre has about 40 senior scientists and other professional staff engaged in a sharply focused programme of advanced research and training supported by an international consortium of donor agencies.

HISTOLOGY AND FINE STRUCTURE RESEARCH UNIT

**Molecular Biologist: Ref: SCI/84/12
(Re-advertisement)**

Candidates must have a Ph.D. (or its equivalent) in cell or molecular biology or immunology, with working experience in electron microscopy.

The successful candidate will be required to work in close collaboration with a team of scientists whose research is targeted on important insect pests and disease vectors.

CROP PESTS RESEARCH PROGRAMME Insect Geneticist: Ref: SCI/85/4

Candidates must have a Ph.D. degree (or its equivalent) and research experience in insect genetics.

The successful candidate will conduct research in collaboration with the Programme Leader, Crop Pests Research Programme, and the Head of Biological Control Section, on various aspects of insect genetics, with emphasis on genetic control of a lepidopterous insect pest (*Chilo partellus*) through F-1 sterility principle.

The position is tenable at Mbita Point Field Station, which is about 500 km. from Nairobi.

CROP PESTS RESEARCH PROGRAMME Agricultural Entomologist: Ref: SCI/85/5

Candidates must have a Ph.D. degree and experience in agricultural entomology, preferably in the field of plant resistance to insect pests of crops. Background and experience in chemistry, particularly of plants, will be an advantage.

The successful candidate will conduct research in collaboration with the Head of Plant Resistance to Insect Pests Section, on the Bases of plant resistance to the target insect pests.

The position is tenable at Mbita Point Field Station.

CHEMISTRY AND BIOASSAY RESEARCH UNIT

Biochemist: Ref: SCI/85/2

Candidates must have recently received their Ph.Ds in biochemistry or related fields, and should have a few years experience in protein biochemistry. Experience in immunochemical techniques will be an advantage.

The successful candidate will contribute to the protein biochemistry programme in isolating and characterising proteins from arthropod tissues to be used as antigens for the induction of resistance in host animals.

CHEMISTRY AND BIOASSAY RESEARCH UNIT

Microbiologist: Ref: SCI/85/3

Candidates must have a Ph.D. in microbiology and relevant research experience in identification and culturing of fungi and bacteria, microbial biochemistry and general microbial genetics.

The successful candidate will be required to work alongside a small team of scientists, under the supervision of the Head of the Unit, investigating the possible use of microorganisms associated with higher African termites for improved lignocellulose bioconversion into fermentable sugars for biogas and ethanol production. He will be primarily responsible for the culturing and identification of bacteria and fungi implicated in lignocellulose degradation, and he will also carry out mutation breeding studies aimed at identifying strains of native isolates with improved capabilities for lignocellulose bioconversion.

Salary attached to these positions is negotiable and includes attractive benefits.

Applications giving detailed curriculum vitae, together with the names and addresses of four referees (one being personal), and photocopies of relevant certificates (which will not be returned) should be sent to:

**The Administrative Manager,
ICIPE Research Centre,
P.O. Box 30772,
Nairobi, Kenya.**

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR—The Department of Biology at Northeastern University invites applications for a tenure-track position in **biochemistry** to begin in September 1985. The department is growing and implementing new programs in biochemistry and molecular biology at the undergraduate and graduate levels. Applicants must be committed to excellence in research and teaching and must have demonstrated excellence through postdoctoral work. Applicants at the associate professor level must have a record of successful external funding for research and must present evidence of a significant scholarly productivity. Closing date: 29 November 1985. Submit letter of application, curriculum vitae, a description of future research plans, and names of three references to: **Dr. Phyllis R. Strauss, Department of Biology, Northeastern University, 360 Huntington Avenue, Boston, Massachusetts 02115.** *Northeastern is an Equal Opportunity/Affirmative Action/Title IX University.*

BIOCHEMIST

Cetus Corporation is seeking a biochemist to participate in product development for human therapeutics. Applicants must have a Ph.D. in chemistry or biochemistry, plus at least 3 years of postdoctoral experience, including supervisory skills. Requirements include demonstrated expertise in chemical modification and cross-linking of proteins, chromatographic and electrophoretic separations of proteins and peptides, HPLC methods development, and amino acid analysis. Experience with scale-up of biochemical procedures and background in bacterial fermentation are preferred. Salary: \$41,000 to \$48,000, plus complete fringe benefits.

Please send résumé in confidence by 15 November 1985 to:

CETUS CORPORATION

Box BFI
1400 Fifty-third Street
Emeryville, Calif. 94608
Equal Opportunity Employer

BIOPHYSICIST (RESEARCH AFFILIATE). Ph.D. in muscle membrane biochemistry and 3 years of training in biological laboratory research using animals, frog tissue dissection (either in Ph.D. program or otherwise) to perform research on: effects of electric stimulation of muscle contraction on plasma membrane proteins using frogs; production and testing of monoclonal antibodies to insulin. Requires good academic record in mathematics, chemistry, biochemistry, and physiology, plus résumé; salary: \$17,913 per year/37 1/2-hour week. Contact: **Albany Job Service Office, Attention: Mrs. Myral Eskenazi, 488 Broadway, Albany, N.Y. 12207.** Refer to Job Order Number 0401627, D.O.T. code 041.061-034.

CELLULAR NEUROBIOLOGIST

Research associate (postdoctoral) position available to study the physiology and pharmacology of vertebrate retinal neurons in cell culture. Applicants should have a background in physiology or biophysics and some experience or interest in electrophysiological techniques. Experience with patch clamp, tissue culture, or computer programming techniques is desirable, but not essential. Send curriculum vitae, research experience, and the names of three references to: **Dr. Eric M. Lasater, Department of Physiology, University of Utah, School of Medicine, 410 Chipeta Way, Salt Lake City, Utah 84108.**

DEVELOPMENTAL BIOLOGIST

The Department of Biological Sciences, Mount Holyoke College, invites applications for a tenure-track position at the level of assistant professor, beginning September 1986. A Ph.D. and a strong commitment to undergraduate education are required; in addition, teaching experience and/or postdoctoral training are preferred. Responsibilities include teaching two developmental biology courses, one at an advanced level in some aspect of animal development and one at an intermediate level (to be taught with a plant biologist), and participation in one other biology course. An active research program, including the supervision of undergraduate research, is also required. Submit letter of application, curriculum vitae, transcripts or lists of relevant course work, and reprints, and have three letters of reference sent to: **Dr. Jane C. Kaltenbach, Chair, Department of Biological Sciences, Mount Holyoke College, South Hadley, Mass. 01075.** Complete applications must be received by 1 December 1985. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA, LOS ANGELES. Department of Anthropology, invites applications for a permanent position for a **BIOLOGICAL ANTHROPOLOGIST** specializing in primate behavioral ecology. Candidates are expected to teach annually an introductory course in biological anthropology, and train graduate students for field research. Especially desirable are research interests in evolutionary ecology, communication, and social organization. Appointment will be made at the assistant professor level but higher ranks are not excluded. (Ph.D. required at time of application.) Appointment beginning 1 July 1986. Send curriculum vitae and names of three references by 1 November 1985 to: **James N. Hill, Chair, Department of Anthropology, University of California, Los Angeles, Calif. 90024.** *Equal Opportunity/Affirmative Action Employer.*

BIOLOGICAL CRYSTALLOGRAPHER

The Department of Biochemistry and the Comprehensive Cancer Center at the University of Alabama at Birmingham invite applications for a tenure-track position in the area of biological crystallography. Preference will be given to junior faculty, but applicants at all levels are encouraged to apply. Candidates should be interested in developing strong and independent research and in participating in collaborative research programs. Teaching includes graduate, medical, and dental students at sizable medical complex. Biochemistry department with excellent new facilities is undergoing substantial expansion. Salary commensurate with experience and competitive. Curriculum vitae, brief statement of present and future interests, and three letters of recommendation should be sent to: **Dr. Herbert C. Cheung, Chairman of the Crystallography Search Committee, 520 CHSB, Department of Biochemistry, University of Alabama at Birmingham Schools of Medicine and Dentistry, University Station, Birmingham, Ala. 35294.** *An Equal Opportunity/Affirmative Action Employer.*

BIOLOGY FACULTY POSITION THE COLLEGE OF STATEN ISLAND The City University of New York (CUNY)

The Department of Biology seeks candidates for a full-time, tenure-track position for a geneticist employing molecular-biochemical techniques, Ph.D. and postdoctoral experience required. Teaching experience and grant activity desirable. Salary and rank commensurate with experience, background, and professional qualifications. Send curriculum vitae and names of references by 15 November to: **Dr. Barry Bressler, Dean of Faculty, THE COLLEGE OF STATEN ISLAND/CUNY, 715 Ocean Terrace, Staten Island, N.Y. 10301.** *An Equal Opportunity/Affirmative Action Employer.*

BIOPHYSICS

Tenured faculty position in the area of structural analysis of membrane proteins using x-ray crystallography and DNA-sequencing.

The Biophysics Division of the Department of Physiology and Biophysics at the University of Illinois at Urbana-Champaign has a position available starting in fall 1986 for a senior faculty member with interests in the above area. The successful candidate will have extensive experience in the crystallization of membrane proteins, and DNA-sequencing. Salary will be negotiable. Applications should be sent to: **Professor R. Gennis, Chairman, Biophysics Search Committee, Department of Chemistry, University of Illinois, 505 South Matthews Street, Urbana, Ill. 61801; telephone: 217-333-9075,** and should be accompanied by curriculum vitae, including a statement of research interests, and the addresses of five people willing to provide references. Applications must be received before 15 November 1985 for full consideration. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

CHEMICAL MEASUREMENT

The University of Maryland seeks candidates for a tenure-track position in the Department of Chemistry who are interested in developing an outstanding research program in the creation of state-of-the-art techniques of chemical measurement. Areas of particular interest include advanced mass spectroscopy, applications of lasers and nonlinear optics, ultra-microinstrumentation, biomedical analysis, in vivo monitoring, electrochemistry, remote sensing, chemometrics, and process analysis. Send a résumé, research plan, and three letters of reference to: **T. C. O'Haver, Department of Chemistry, University of Maryland, College Park, Md. 20742.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

CELL AND MOLECULAR BIOLOGIST

The Zoology Department at the University of California, Davis, invites applications for a full-time (11 months per year), tenure-track position at the assistant professor level. Applicants must have a Ph.D. and a minimum of 2 years of postdoctoral experience. The department is interested in applicants who are studying the molecular aspects of cellular differentiation and gene expression in eukaryotes. Suitable problems include, but are not limited to, genetic regulation of development and molecular biology of cellular differentiation, for example in the immune system, the nervous system, or in hematopoiesis or muscle. The principal teaching duties will be an undergraduate cell or developmental biology course and a graduate course in the candidate's area of interest. Applicants should forward their curriculum vitae with selected reprints and have three letters of recommendation sent by 1 December 1985 to: **Dr. Richard Nuccitelli, Chair, Search Committee, Department of Zoology, University of California, Davis, Calif. 95616.**

The University of California is an Equal Opportunity/Affirmative Action Employer.

DEVELOPMENTAL BIOLOGY

The Department of Biology of the University of Houston—University Park invites applications for tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level in developmental biology. Candidates must have at least 1 year of postdoctoral experience and recognized accomplishments in the molecular and/or cellular biology of developing eukaryotic systems. The successful applicants will become part of a growing group of developmental biologists and will be expected to establish and maintain an independent research program and assist in the instruction of graduate and undergraduate students. Located in the nation's fourth largest city, the University of Houston is a state-supported institution with approximately 30,000 undergraduate and graduate students. Interested applicants should submit curriculum vitae, a summary of research interests, and the names of three references to: **Susan J. Henning, Ph.D., Developmental Biology Search Committee, Department of Biology, University of Houston—University Park, Houston, Tex. 77004.** *The University of Houston is an Equal Opportunity Employer.*

DIRECTOR OF THE WAMI MEDICAL PROGRAM IN IDAHO

The University of Idaho solicits nominations and applications for the position of director for Idaho's component of the WAMI (Washington, Alaska, Montana, Idaho) Regional Medical Education Program of the University of Washington School of Medicine. Position descriptions are available on requests made to the address below. Starting date is 1 July 1986. To apply, please submit a letter of application, a résumé, and the names, addresses, and telephone numbers of four references by 1 November 1985 to: **Chair, WAMI Search Committee, College of Letters and Science, University of Idaho, Moscow, Idaho 83843.**

The University of Idaho is an Equal Opportunity/Affirmative Action Employer and Educational Institution.

Baylor College of Medicine is searching for a **DIRECTOR** for its **LABORATORY ANIMAL CARE PROGRAM.** The task requires Board-certification/eligibility in laboratory animal medicine and demonstrated experience in programmatic development. The college recently occupied a \$4.5-million central animal facility and is renovating its major satellite facilities. Competitive salary and academic appointment are negotiable. Please send résumé and the names and addresses of three references, before 15 December 1985, to: **Robert R. Rich, M.D., Chairman, Search Committee, Baylor College of Medicine, DeBakey Center M929, One Baylor Plaza, Houston, Texas 77030.** *Baylor College of Medicine is an Affirmative Action/Equal Opportunity Employer.*

ALPHA-FETOPROTEIN LABORATORY soliciting applications for **Director/Technical Supervisor.** Private, prenatal diagnostic laboratory requires individual with M.S. or Ph.D. degree, plus minimum of 4 years of experience in clinical laboratory. Candidate must be familiar with radioimmunoassay and enzyme-linked immunoassay techniques. Salary commensurate with experience. Send curriculum vitae with names of three references to: **K. E. Richkind, Ph.D., Laboratory Director, Vivigen, Inc., 550 St. Michaels Drive, Santa Fe, New Mexico 87501.**

RESEARCH SCIENTISTS

Positions are available for highly motivated individuals with a background in cell biology at a new Massachusetts based biotechnology company developing artificial internal organs which incorporate living cells. Current emphasis is on diabetes research with pancreatic islets and beta cells.

SENIOR SCIENTISTS

PhD or MD with a minimum of 2 years postdoctoral research experience with mammalian cell systems. Familiarity with organ perfusion, transplantation, diabetes research desirable.

LABORATORY MANAGER

PhD or MD with strong publication record; minimum 4 years postdoctoral experience with mammalian cell culture. Must possess managerial abilities. Familiarity with islet research desirable.

Submit resume, salary history and requirements and names of three references to: **Box 209, SCIENCE.**

ESE, an international leader in the field of air quality studies and environmental assessment and monitoring programs, needs outstanding engineers and scientists for the following positions:

DIRECTOR OF ECOLOGICAL DIVISION

Scientist to lead active Ecology Division in Environmental Planning, Ecology and Aquatic Toxicology. Responsibilities include Profit Center management, coordination with Regional Offices, Project Management, Marketing and Client Development. Additional experience in Wetlands Studies, Hazardous Waste and Reclamation desirable. Requires Ph.D. in Ecology or related Life Sciences, a minimum of ten years progressively responsible experience, including Business Development and people management. Previous work in Environmental Consulting, interaction with government and regulatory agencies and industry required.

HEALTH RISK ASSESSMENT SCIENTIST

Individual needed to work on interdisciplinary team performing exposure assessments, public health evaluations, management of Superfund endangerment assessments, participation in site-specific risk assessments, presentation of results and proposal preparation.

Position requires advanced degree in the health/life sciences and 2-5 years of risk assessment experience including health effects of toxic chemicals. Familiarity with toxicological data bases preferred. Interested applicants should submit their resume and salary requirements to:

ESE

Environmental Science and Engineering, Inc.
P.O. Box ESE, Dept. EC-85
Gainesville, FL 32602

An RS&H Company Equal Opportunity Employer M/F

Henkel Corporation

MOLECULAR GENETICS ENZYMOLGY

The Henkel Group, a century long leader in applied oleochemistry, seeks scientists to join their expanding biotechnology effort. These positions of responsibility are in the Molecular Genetics Department at our U.S. research facility in Minneapolis.

SECTION LEADER

The successful candidate will report to the Director and oversee the recombinant DNA program. Applicants should have a Ph.D. in Microbiology, Biochemistry or closely related field and four or more years experience after postdoctorate in industry or academia. Scientific leadership in eukaryotic molecular genetics (yeast, fungi and/or plants) is essential. Experience directing fellow Ph.D. scientists and planning research programs is required.

SENIOR RESEARCH POSITIONS

Applicants should have a Ph.D. in Microbiology, Biochemistry or related field, postdoctoral experience and three or more years experience after postdoctorate in industry or academia. Successful candidates will plan, direct and conduct research in one of two areas:

- Biocatalyst Development: use of enzymes for new and improved biochemical conversions.
- Molecular Genetics: cloning, expression and optimization in procaryotes of genes for novel enzymes.

For confidential consideration, send your resume, list of references and salary requirements to:

Ms. Carol Sullivan
**HENKEL TECHNICAL
CENTER**
2010 E. Hennepin Ave.
Minneapolis, MN 55413-2799

An Equal Opportunity Employer M/F

Henkel

Regulatory Toxicologist

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- 5+ years experience in regulatory toxicology/risk assessment? (Management experience a plus).
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You Should Look Into SRC . . .

The Center for Chemical Hazard Assessment at Syracuse Research Corporation has an exciting career move opportunity available to you. The skills and experience you possess in the regulatory toxicology field are needed within our independent multi-disciplinary research and development organization. We offer unlimited challenge and opportunity to the right individual at our modern facilities in beautiful Central New York.

If you would like your valuable experience to really count, send your resume to:

Dr. Patrick Durkin, Director
Center For Chemical Hazard Assessment
Syracuse Research Corporation
Merrill Lane
Syracuse, New York 13210

An Equal Opportunity Employer M/F/H

Syracuse Research Corporation



Merrill Lane

Syracuse, New York 13210

(315) 425-5100

POSITIONS OPEN

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Arthropod Borne Animal Diseases Research, Laramie, Wyoming, has the following openings: **Two-year term appointment for a MICROBIOLOGIST OR RESEARCH CHEMIST, GS-11 (interdisciplinary positions).** Incumbent provides specialized skills to develop and apply immunological and biochemical procedures to characterize the monoclonal antibodies produced to viral-specific antigens of bluetongue (BT) and epizootic hemorrhagic disease (EHD) viruses and to use these antibodies to isolate and purify specific viral polypeptides. Knowledge of biochemistry, microbiology, and molecular virology is required. Ph.D. degree is desirable. Minimum educational requirements: Bachelor's degree in appropriate field or equivalent education and experience. Plus 3 years of professional experience or graduate education. **SUPERVISORY MICROBIOLOGIST, GS-9 (promotion potential, GS-11).** Duties involve cell production services and studies on the investigations of bluetongue virus and other insect-transmitted animal diseases. Incumbent trains subordinate personnel in the preparation of organ cultures, subcultures from cell lines and strains, plus other media and reagents used in cell culture and maintenance. Knowledge of cell culture techniques is required. Minimum educational requirements: Bachelor's or higher degree in appropriate field or equivalent education and experience. Plus 2 years of professional experience or equivalent graduate education. For additional information, telephone: Dr. Thomas Walton, 303-236-7953. For application procedures and forms, telephone: Cathleen Enuton, 301-344-3138, Agricultural Research Service, Beltsville, Md. 20705. Applications for the first position should be coded W-05 and the second W-06. Salary for the first position is commensurate with experience (GS-11, \$26,381 to \$34,292 per annum). Salary for the second position, GS-9 (\$21,804 per annum). *Candidates must be U.S. citizens. An Equal Opportunity Employer.* Applications must be received by 31 January 1986.

ASSISTANT PROFESSORSHIPS. The Department of Chemistry anticipates openings in analytical, inorganic, and physical chemistry. Applicants for these tenure-track positions must be committed to excellence in research and teaching. The successful candidates will have a minimum of a Ph.D. in chemistry. Postdoctoral experience, while desirable, is not essential.

- Analytical Chemistry**—it is preferred that the candidate's Ph.D. and/or postdoctoral experience, and research interests, be in some area of separation science, though consideration will also be given to others whose research interests complement those of the present faculty in the analytical area.
- Inorganic Chemistry**—The candidate's doctoral thesis work, or subsequent postdoctoral experience, should have involved an area of modern inorganic chemistry. Strong preference will be accorded to candidates whose research complements rather than duplicates that currently present in the department.
- Physical Chemistry**—Either the candidate's doctoral thesis work, or subsequent postdoctoral experience, should have involved an area of modern physical chemistry. Strong preference will be given to candidates with interests in the solid-state physical chemistry and chemical physics areas.

Candidates should send complete curriculum vitae, which includes a description of future research plans, a documented summary of past accomplishments, and arrange to have at least three letters of recommendation sent to: **Chairman, Search Committee, Department of Chemistry, State University of New York at Buffalo, Buffalo, New York 14214.** The deadline for applications is 1 November 1985.

The Department of Chemistry is particularly interested in considering the applications of women, ethnic minorities, or handicapped persons. The State University of New York is an Affirmative Action/Equal Opportunity Employer.

The Department of Psychiatry and Behavioral Sciences at Stanford Medical Schools seeks a **DIRECTOR** for its Developmental Psychopathology Clinical Research Center. Candidates must hold the M.D. or equivalent degree, be Board-certified or Board-eligible in child psychiatry and hold or be eligible for a California medical license. Demonstrated expertise in clinical research in children is mandatory. The director of the Developmental Psychopathology Clinical Research Center will be expected to develop significant research projects in his/her area of interest, as well as to collaborate extensively with faculty and staff in other research areas. Projects are now underway in pervasive developmental disorders, attention deficit disorders, eating disorders, sleep disorders, infant neurological development, language development, and neuroendocrine concomitants of attachment and separation. We are particularly interested in developing our research program in childhood affective illness. Education of residents, fellows, and students will be an important component of this position. The director will be expected to develop, lead, and participate in education programs of the department. This is a tenure-track position, which confers appointment to the full-time faculty in the Department of Psychiatry and Behavioral Sciences at the rank of assistant professor. *Stanford University is an Equal Opportunity Employer and welcomes nominations of women and minority group members and applications from them.* Interested applicants should submit their curriculum vitae, supporting documents, and names of referees by 1 December 1985 to: **Roland D. Ciaranello, M.D., Professor and Chief, Division of Child Psychiatry and Child Development, Stanford University School of Medicine, Stanford, California 94305.**

ECOLOGIST—ASSISTANT/ASSOCIATE/FULL PROFESSOR. The Division of Biological Sciences at The University of Michigan solicits applications for a tenure-track faculty position. Collegiate approval for this position is pending. We wish to identify candidates with records of outstanding research accomplishments, a history of sustained extramural funding, and a commitment to the development of a strong program of research and teaching in ecology. Our preference is for an individual who qualifies for a tenured position at Michigan, but outstanding junior-level candidates with postdoctoral experience may also apply. All applicants should submit curriculum vitae, copies of relevant publications, and names of four references. All correspondence should be sent to:

**Chair, Ecology Search Committee
Division of Biological Sciences
The University of Michigan
Ann Arbor, Mich. 48109-1048**

Closing date for applications is 6 December 1985. *The University of Michigan is an Affirmative Action/Equal Opportunity Employer.*

Full-time, tenure-track **ECOLOGIST** position emphasizing research and teaching. Rank and salary based on teaching experience and research activities. Send curriculum vitae and have three letters of recommendation sent to: **H. Duane Smith, Chairman, Ecology Search Committee, Department of Zoology, Brigham Young University, Provo, Utah 84602,** by 1 December 1985. Brigham Young University is a private church-owned institution. Successful applicant must adhere to behavioral standards of the University.

FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry and Molecular Biology at The University of Texas Health Science Center at Houston invites applications for a tenure-track faculty position, at a rank to be commensurate with experience, from qualified individuals with a commitment to excellence in teaching and research in biochemistry and molecular biology. Responsibilities will include participation in the medical school curriculum and in the graduate training program within the Graduate School of Biomedical Sciences, as well as developing and conducting a high-quality, independent research program. Applicants should send curriculum vitae, list of publications, and a summary of research interests, and have three letters of recommendation submitted on their behalf to: **Dr. John A. DeMoss, Department of Biochemistry and Molecular Biology, The University of Texas Medical School at Houston, P.O. Box 20708, Houston, Texas 77225.** Applications will be accepted until 31 December 1985. *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

ENGINEERING FACULTY POSITION

Experimentalist in nuclear energy/plasma physics with interests in problems related to inertial confinement fusion. Engineering background (degree, professional licensure, and/or industrial experience) preferred. The successful candidate will teach undergraduates in an ABET accredited mechanical engineering program and graduate courses related to his or her research interests, supervise graduate students and establish a vigorous research program, in part in association with the Laboratory for Laser Energetics.

Tenure track, rank and salary commensurate with experience. Reply to: **Professor Roger F. Gans, Chairman, Department of Mechanical Engineering, University of Rochester, Rochester, N.Y. 14627.**

The University of Rochester is an Affirmative Action/Equal Opportunity Employer.

TWO FACULTY POSITIONS

The Department of Microbiology seeks applicants for two tenure-track positions at the assistant/associate professor levels. Preference will be given to applicants with research interests in the area of **MICROBIAL PATHOGENIC MECHANISMS** or in **IMMUNOLOGY**. Strong applicants in related areas are also encouraged to apply. Applicants must have postdoctoral training. The successful candidates will be expected to establish an active research program and participate in graduate and undergraduate teaching. Applicants should submit curriculum vitae, statement of research interests and professional objectives, and names of three references to: **Dr. Louis P. Mallavia, Chairman of Search Committee, Department of Microbiology, Washington State University, Pullman, Wash. 99164-4340.** Applications deadline: 1 December 1985. *Washington State University is an Equal Opportunity Employer.*

FACULTY POSITION CORNEAL PHYSIOLOGY

Assistant professor position (tenure-track) at the University of California, Berkeley, School of Optometry, is available for the 1986-1987 year, or earlier. Doctoral degree with postdoctoral research experience or equivalent is required. Preference will be given to candidates with interests in basic and applied problems in corneal physiology. An interest in physiological properties associated with contact lens use is desirable. Candidates are sought with training in biophysics, pharmacology, physiology, or bioengineering. A strong commitment to excellence in teaching, both at the professional and graduate levels, is required.

Curriculum vitae, statement of research and teaching interests (and background in each), graduate and undergraduate transcripts, lists and reprints of published works, and names and addresses of at least three references should be sent to:

**Professor Robert Mandell, Chairman
Search Committee (Corneal Physiology)
School of Optometry
University of California
Berkeley, Calif. 94720**

Applications will be accepted until 15 November 1985.

The University of California is an Equal Opportunity/Affirmative Action Employer.

GENETICS/MOLECULAR BIOLOGY—ASSISTANT/ASSOCIATE/FULL PROFESSORSHIP. The Division of Biological Sciences at The University of Michigan invites applications for one, and possibly two, tenure-track faculty positions. Primary responsibilities will be the establishment of an active research program in genetics/molecular biology, and participation in the undergraduate and graduate teaching programs of the division. Appointments will be made either to augment existing areas of strength in the division or to broaden our expertise in cellular, molecular, or developmental biology. All applicants should submit curriculum vitae, reprints or preprints of selected publications, and a statement of future research plans. Applicants for a junior-level appointment should submit four letters of recommendation; candidates for a senior-level appointment should submit the names of prospective referees. All correspondence should be sent to:

**Chair, Genetics Search Committee
Division of Biological Sciences
The University of Michigan
Ann Arbor, Mich. 48109-1048**

Deadline for receipt of applications is 15 November 1985. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

STATE OF KUWAIT KUWAIT UNIVERSITY

Kuwait University invites applications for the academic year 1986/87 tenable September 1st 1986 in the following disciplines:

FACULTY OF SCIENCE (English medium)

Mathematics Department	Full Prof. or Asst. Prof. (Assoc. Prof.)—Computer Science, Statistics, Operations Research, Applied Mathematics, Numerical Analysis, Differential Equations.
Physics Department	Asst. Prof. (Assoc. Prof.) or Lecturer-Experimental Solid State Physics (Specializing in semi-conductors) Digital Electronics.
Chemistry Department	Asst. Prof. (Assoc. Prof.)—Physical Chemistry.
Botany & Microbiology Department	Phycology, Ecology of Marine Macroalgae, Seaweeds.
Zoology Department	Marine Biology, Animal Behaviour, Comparative Anatomy.
Geology Department	Metamorphic Petrologist, Stable Isotope Geochemist.

All applicants must hold the Ph.D. or its equivalent at the time of application. Applications will only be considered for posts advertised.

English is the medium of instruction in the Faculty of Science and the Faculty of Engineering & Petroleum. Arabic is the medium of instruction in all other faculties and candidates must be competent to lecture in Arabic.

Applications and conditions of service may be obtained by writing to:

**Kuwait University Office
3500 International Dr. N.W.
Washington, D.C. 20008**

Applications, together with non-returnable copies of academic qualifications and representative publications should be sent by registered post directly to:

**Department of Administrative Affairs
Kuwait University
P.O. Box 5969
Kuwait**

All applications must be received in Kuwait by December 31st, 1985.

POSTDOCTORAL APPOINTMENTS IN MECHANISMS OF TOXICOLOGY

The Lovelace Inhalation Toxicology Research Institute offers outstanding opportunities to recent (within last 36 months) doctoral degree graduates to train at its internationally recognized laboratory in Albuquerque, New Mexico. Two year appointments are available for individuals with the following training:

- Doctoral degree in fields such as Biochemistry, Pharmacology, Toxicology, Molecular Biology, Chemistry, Medicinal Chemistry, Biophysics, Experimental Pathology or related fields.
- Three to four years of laboratory experience of the type typically associated with rigorous doctoral degree program.

The successful applicants will have the opportunity to work with our multidisciplinary staff of 50 doctoral degreed scientists in a modern and well equipped research environment. A wide spectrum of activities are under way including research to understand the physical and chemical properties of airborne materials and how these properties influence their toxicity, the toxicokinetics of inhaled materials and mechanisms of toxicity in mammals using in vitro and in vivo systems. Major investigations focus on the biology and pathobiology of the respiratory tract with emphasis on studying mechanisms of induction of respiratory tract cancer.

These appointments will enhance the career options of individuals with good communications skills who desire to work in a multidisciplinary team environment. Starting stipend of \$20,000 per annum plus relocation and comprehensive health care benefits. U.S. Citizenship or permanent residency required. To apply, contact the Personnel Unit, Lovelace Inhalation Toxicology Research Institute, (505) 844-9431, or write to: P.O. Box 5890, Albuquerque, NM 87185.

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

FACULTY POSITION University of Miami School of Medicine Department of Anatomy and Cell Biology

The Department of Anatomy and Cell Biology of the University of Miami School of Medicine is planning to fill a tenure-track faculty position at the assistant or beginning associate professor level. The appointment can start as early as 1 June 1986. We are particularly interested in candidates whose research interests involve molecular or cellular aspects of developmental biology, but other highly qualified candidates will also be given consideration. The successful candidate will be expected to develop a strong, grant-supported research effort, and to participate in graduate and medical student education. Interested persons should send curriculum vitae and a description of research interests to: **Dr. Kermit L. Carraway, Chairman, Department of Anatomy and Cell Biology (R-124), University of Miami School of Medicine, Miami, Fla. 33101.**

FACULTY POSITIONS IN CELLULAR AND MOLECULAR BIOLOGY

Applications are invited for tenure-track positions in the Department of Cell Biology and Anatomy at Northwestern University Medical School. These positions are at the assistant and associate professor levels. Applicants must have a Ph.D., M.D., or equivalent degree, with research experience in cellular and/or molecular biology. Applicants will be screened with respect to their ability to carry on vigorous research programs and to participate in the teaching of graduate and medical students. Send complete curriculum vitae, brief description of research interests, and at least three letters of recommendation to: **Dr. Robert D. Goldman, Department of Cell Biology and Anatomy, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Ill. 60611.** Northwestern University is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

FACULTY POSITION IN HUMAN GENETICS MEDICAL COLLEGE OF VIRGINIA

The Department of Human Genetics, Medical College of Virginia (MCV), is seeking applicants for an assistant professorship. Applicants should have a strong background in genetic epidemiology with advanced training in genetics and/or epidemiology. In addition to taking part in the teaching activities of this department, the successful candidate will also be expected to assume a major role in the establishment of a statewide Congenital Anomaly Recording and Educational Service. Applicants should send their curriculum vitae and letters from three references to:

**Walter E. Nance, M.D., Ph.D., Chairman
Department of Human Genetics
Box 33, MCV Station
Richmond, Virginia 23298**

MCV/Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer.

The Department of Pathology at The University of Michigan seeks an individual with skills and experience in the areas of **GENERAL SURGICAL PATHOLOGY** and **GYNECOLOGICAL PATHOLOGY**. It is expected that this individual will be Board-certified in anatomic pathology by the American Board of Pathology and will have evidence of academic credentials and interest in research pursuits. The appointment is scheduled for an assistant professor in the tenure track. Candidates should contact: **Peter A. Ward, M.D., Professor and Chairman, Department of Pathology, The University of Michigan Medical School, 1315 Catherine Road, Ann Arbor, Michigan 48109-0010; telephone 314-763-6384.**

Department of Biology seeks a broadly trained **GENETICIST** whose research is concerned with basic problems in genetics to fill a tenure-track assistant professor position no later than fall 1986. Candidate should have at least 1 year of postdoctoral experience and must show evidence of continued research productivity. Duties will include undergraduate and graduate teaching in genetics and the establishment of a vigorous research program including the supervision of M.S. and Ph.D. students. Submit curriculum vitae, reprints of recent publications, and a statement of research goals and teaching interests. Also arrange to have three letters of recommendation forwarded by 1 November 1985 to: **Dr. F. Paul Doerder, Genetics Search Committee, Department of Biology, CLEVELAND STATE UNIVERSITY, 1983 East 24 Street, Cleveland, Ohio 44115.** An Equal Opportunity Employer, M/F/H.

POSITIONS OPEN

HAZARDOUS WASTE RESEARCH UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

The Civil Engineering Department, Environmental Engineering Program, is requesting applications for a tenure-track, assistant professor position from individuals with demonstrated research ability in some aspect of hazardous waste or a closely related area. Candidates should also be able to teach graduate-level courses in laboratory methods and either sanitary engineering, or solid and hazardous waste management. A Ph.D. in a biological, chemical, physical, or engineering discipline is required. A background in civil engineering is preferred, but not required. The position is available immediately. Send application letter, résumé detailing research and teaching experience, a statement of proposed research, and three names for letters of recommendation by 15 December to: **Dr. Ronald C. Henry, University of Southern California, Biegler Hall of Engineering 213M, University Park, Los Angeles, Calif. 90089-0231.**

USC is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS, MOLECULAR BIOLOGISTS, PRINCETON UNIVERSITY. The Department of Molecular Biology is seeking to fill junior and senior faculty positions. Research interest in protein structure-function relationships using physical, molecular, or genetic approaches. Submit a brief description of proposed research program, curriculum vitae, and list of references to: **Dr. A. Newton, c/o L. Cole, Department of Molecular Biology, Princeton University, N.J. 08544.**

Princeton University is an Equal Opportunity/Affirmative Action Employer, M/F.

OLD DOMINION UNIVERSITY

GENETICIST. Assistant professor rank in research-oriented, tenure-track position available January 1986 or August 1986. Ph.D. required with research experience at the cellular or molecular level. Teaching responsibilities include a basic course in genetics. Send résumé with names and addresses of three references by 25 October 1985 to: **Dr. H. G. Marshall, Department of Biological Sciences, Old Dominion University, Norfolk, Va. 23508.** Old Dominion University is an Affirmative Action/Equal Opportunity Institution.

HEAD of DEPARTMENT

The Department of Civil Engineering at Carnegie-Mellon University is seeking applicants for the position of professor and head of the department. Candidates must have a distinguished record of research and scholarly achievement compatible with one or more areas of concentrations of the department. The primary concentration areas are: engineering planning and management, environmental engineering; mechanics, structural, and geotechnical engineering; and computer-aided engineering including robotics. The department is comprised of 18 faculty members, several of whom hold joint appointments, nine research associates, 63 full-time graduate students, and approximately 90 undergraduates. The department has a vigorous externally funded research program. The head is expected to be dedicated to excellence and to provide leadership to maintain and evolve programs in teaching and research. Applications should be received by 31 October and should be sent to: **Professor Richard G. Luthy, Head of Search Committee, Department of Civil Engineering, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213.** Carnegie-Mellon University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and members of minority groups.

HEAD, DEPARTMENT OF BIOLOGY. Purdue University-Calumet has reopened its search for head of the Department of Biology. The department offers baccalaureate programs in biology and medical technology, and the master's degree in biology. The position will be filled at the associate professor or professor rank, and carries a half-time teaching responsibility. Preferred area of expertise is vertebrate biology. Requirements include earned doctorate, history of effective teaching, and active research. Academic administrative experience is desirable. Position available January or July 1986. Submit curriculum vitae and names, addresses and telephone numbers of three references by 11 November 1985 to: **Dwight R. Kirkpatrick, Chair, Biology Head Search Committee, Purdue University-Calumet, Hammond, Ind. 46323.** Purdue-Calumet is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

DEPARTMENT HEAD: MOLECULAR BIOLOGY

An established biotechnology company is seeking an experienced scientist to head its Molecular Biology Department. Candidates should have both excellent scientific credentials and demonstrated abilities as a group leader.

The Molecular Biology Department consists of ten Ph.D. level scientists and an equal number of other skilled staff. The primary responsibilities of the department head will be to expand the scientific capabilities of the department, to establish and direct his or her own laboratory's work on the identification, cloning, and characterization of human proteins as potential therapeutics, and to be responsible for overall supervision of the department's other laboratories.

The scientific activities of the Molecular Biology Department include selection of new therapeutic agents, cloning of eukaryotic genes, modification of cloned proteins through mutagenesis, and development and utilization of new mammalian host-vector systems. The background of the department head must include demonstrated expertise in one or more of these areas. This is an exciting and challenging opportunity for an established investigator who is interested in working in a multidisciplinary team which requires close and rapid collaboration with other scientific departments in a highly competitive environment. Please send résumé in confidence to: **Box 216, SCIENCE, Equal Opportunity Employer.**

HYBRIDOMA TECHNOLOGY. Laboratory, completely staffed and equipped to perform hybridoma technology, monoclonal antibody production and purification, as well as solid phase immunoassay development, is seeking contract work prior to expiration of current funding (30 November 1985). Contact: **Roger Dean, Ph.D., University of New Mexico, Community Medicine, Albuquerque, New Mexico 87131.** Telephone: 505-277-5987.

Ph.D. IMMUNOLOGY—POSTDOCTORAL POSITION AVAILABLE IMMEDIATELY. For the study of immunoregulation of macrophage activity in a murine model of cryptococcosis. Preference given to candidates with experience in cellular immunology and lymphokine research, including experience with isolation and characterization of lymphokines. Send curriculum vitae, three letters of recommendation, and transcripts to: **Nancy K. Hall, Ph.D., Department of Pathology, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190.** The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.

KENNEDY SPACE CENTER LIFE SCIENCES GRADUATE STUDENT ASSISTANTS

Temporary positions available for graduate students with research and/or laboratory teaching experience in plant physiology, human vestibular (otolith) physiology, animal (rodent) nutrition, rhizosphere microbiology, or zooplankton ecology (orientation) from 15 January to 30 August 1986. Unique opportunity for participating in nationally competitive undergraduate program, learning about space life sciences research, and conducting a student project flying on the space shuttle. Submit letter of interest, résumé, and three references by 1 November 1985 to: **J. R. Puleo, M.C.: BIO-1, Kennedy Space Center, Fla. 32899.** Equal Opportunity Employer.

MICROBIOLOGIST (GENETICS)—To undertake research for genetic engineering firm involved in the development and production of biotinylated DNA probes for clinical diagnosis of human pathogens. Responsibilities will include design and implementation of experiments for the isolation of specific diagnostic probes for causative agents of human diseases of microbial origin, use of modern genetic and biochemical techniques such as gene cloning and DNA-DNA hybridization studies, compilation of data, and preparation of research reports and conclusions. Must have Ph.D. in microbiology and genetics, at least 5 years of postdoctoral research in bacterial genetics, publication of a number of articles regarding bacterial genetics and experience in the safe handling of a wide variety of exotic and pathogenic microorganisms. Salary: \$31,000 per year, Monday through Friday, 40 hours per week. Send résumés to: **E. Figueroa, New York State Job Service, Job Order Reference Number 8023058, 175 Remsen Street, 2nd Floor, Brooklyn, N.Y. 11201.**

RESEARCH DIRECTOR

SOMATIC EMBRYOGENESIS IN CONIFERS

The Institute of Paper Chemistry has an active multidisciplinary research program dedicated to the production of embryos and plantlets of loblolly pine and Douglas-fir by somatic embryogenesis and other forms of tissue culture. We are seeking an exceptionally talented research director who is capable and eager to direct world class research in this area. Candidates must have a doctor's degree in botany or plant physiology and a minimum of ten years experience in tissue culture and plant biochemistry. Candidates have achieved international reputation for scientific contributions to the field of research as evidenced by publications in the refereed scientific literature and by invited presentations at national and international scientific conferences. Candidates have reached the level of full professor in an academic institution and/or research director in an industrial laboratory. The successful candidate will be a member of the faculty and contribute to the graduate program. Salary commensurate with experience.

The Institute of Paper Chemistry is an accredited independent graduate school and research center in the natural sciences and engineering, supported by the paper industry for over 55 years. Write: **Director of Personnel, The Institute of Paper Chemistry, P.O. Box 1039, Appleton, Wisconsin 54912.** An Equal Opportunity/Affirmative Action Employer.

DIRECTOR

BANBURY CENTER COLD SPRING HARBOR LABORATORY

A unique and challenging position which will utilize a strong background in the biological sciences in combination with writing, publishing and administrative skills. The Director is responsible for generating, overseeing and facilitating small scientific conferences and the selective publication of proceedings emanating from these. The Director will also arrange for and administer workshops and other educational and writing projects.

Unusually attractive setting on 45-acre estate overlooking Long Island Sound, close by the Cold Spring Harbor Laboratory grounds proper. Excellent fringe benefits. Salary fully commensurate with leadership nature of the position and background and qualifications of the selected candidate. Starting date: 1 January 1986. Nominations for the position or curriculum vitae may be forwarded to:

J.D. Watson, Administrative Director
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, New York 11724



Cold Spring Harbor Laboratory

An equal opportunity employer



The Howard Hughes Medical Institute and

The National Institutes of Health

again announce

The Program for Research Opportunities for Medical Students 1986-87

HHMI-NIH Research Scholars can spend 9-12 months in one of the 1,000 research laboratories located at the NATIONAL INSTITUTES OF HEALTH, Bethesda, MD.

Salary, fringe benefits and travel will be provided.

Further information and application forms may be obtained by writing to the Howard Hughes Medical Institute, P.O. Box 330837, Coconut Grove, FL 33133

Your request for the application information should be received by December 2nd, 1985.

Final deadline for return of all application materials is January 15th, 1986.

POSITIONS OPEN

The Department of Therapeutic Radiology, University of Minnesota, has a tenure-track teaching/research position available at the INSTRUCTOR level.

The candidate with an M.D. or Ph.D. degree should have experience in experimental bone marrow transplantation, radiobiology, hybridoma technology, stem cell assays, long-term marrow culture techniques, clonogenic assays, and especially cloning of fresh leukemic cells from common B-lineage ALL patients. Experience in the synthesis and application of immunotoxins is also required. The candidate will be expected to participate in ongoing research in total body irradiation within the department and also will be capable of establishing his/her own research program.

Send curriculum vitae and names of three professional references before 31 October 1985 to: **Dr. C. W. Song, Department of Therapeutic Radiology, University of Minnesota Medical School, 420 Delaware Street, SE, Box 494 Mayo, Minneapolis, Minn. 55455.**

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

MEDICAL ONCOLOGIST-Researcher—Must have a significant clinical commitment with research background, preferably in applications of monoclonal antibodies or other biological modifiers to clinical problems. Background suited to collaboration with strong basic science group recently developed at the University of New Mexico Cancer Center. Rank depends on qualifications. Send curriculum vitae, representative reprints, and statement of interests and research goals to: **Thomas Tomasi, M.D., Ph.D., Director, Cancer Center, Chairman, Department of Cell Biology, University of New Mexico, Albuquerque, N.M. 87131. Affirmative Action/Equal Opportunity Employer.**

MOLECULAR BIOLOGIST

Applications are invited for permanent positions as research associate (Ph.D.) and research assistant (non-Ph.D.) to join group investigating the structure, function, and gene regulation of the early complement system proteins. Research projects will study gene expression and macromolecular structure-function relationships using site-directed mutagenesis. Salaries will be commensurate with experience and training. Candidates well-versed in recombinant DNA technology should forward curriculum vitae to: **Dr. John E. Mole, Department of Biochemistry, University of Massachusetts Medical Center, Worcester, Mass. 01605.**

DUKE UNIVERSITY MOLECULAR BIOLOGY AND EVOLUTION RANK OPEN

The Department of Zoology seeks a **Molecular Biologist** with a strong background and interest in evolution. The appointment can be made at any level from tenure-track, assistant professor to tenured full professor, depending upon the qualifications of the candidate selected and will be effective in the fall of 1986. The appointee will have demonstrated outstanding ability in research. Teaching responsibilities are to participate in the development of a one semester undergraduate course in molecular biology and to offer an advanced course in the other semester. By 1 December 1985, send curriculum vitae, brief statements of research and teaching interests, and the names and addresses of three references to: **Dr. Nicholas Gillham, Department of Zoology, Duke University, Durham, N.C. 27706.**

MYCOLOGY/MICROBIOLOGY ASSISTANT PROFESSOR

The Department of Botany invites applications for a tenure-track position in **Mycology or Microbiology**. Research areas of interest include: mycorrhizae, host-parasite and other plant-microbial interactions, soil microbiology, developmental and evolutionary biology. Responsibilities include teaching an undergraduate microbiology course and an upper-level course in mycology or related field. Candidates are expected to show distinction in scholarship and teaching, and to develop a creative career in research. Applicants should submit curriculum vitae, reprints, and the names and addresses of three referees by 1 December 1985 to: **Professor Richard Searles, Department of Botany, Duke University, Durham, N.C. 27706.**

Duke University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MANAGER OF TOXICOLOGY

Adria Laboratories, a growing U.S. affiliate of a major worldwide pharmaceuticals corporation, has an immediate opening for a manager of toxicology. The individual in this position will be responsible for all of the toxicology carried out within its own GLP research facility, as well as those placed in outside laboratories. This individual will be responsible for preparation of nonclinical safety reports for FDA submission.

A Ph.D. and/or D.V.M. and 7 to 10 years of experience in toxicology within the pharmaceutical industry are required. The candidate must be thoroughly familiar with GLP regulations and FDA guidelines for nonclinical safety studies. Good communication skills and leadership ability are essential.

Adria offers a modern interactive research environment and a competitive salary and benefits package, including an attractive savings plan. We are located in Dublin, a suburb of Columbus, Ohio. Please send résumé and salary requirements to:

**S.W.
ADRIA LABORATORIES
P.O. Box 16529
582 West Goodale
Columbus, Ohio 43216**

An Equal Opportunity Employer, M/F/H/V

MEMBRANE TRANSPORT BIOCHEMIST

Career position with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), in a multidisciplinary photosynthesis research group on the University of Illinois campus. Successful candidate will conduct research on membrane transport, characterizing the assembly and mechanism of action of leaf cell membrane components which participate in the partitioning and movement of assimilate, protein, and other photosynthetically active compounds. Position includes faculty appointment and operating budget. Beginning salary range: \$31,619 to \$48,876 (GS-12/13), depending on qualifications. For additional information, contact (by 15 October 1985): **Dr. Williams L. Ogren, USDA-ARS, 1102 South Goodwin Avenue, Urbana, Ill. 61801; telephone: 217-333-4370. Candidates must be U.S. citizens. Equal Opportunity Employer.**

MOLECULAR VIROLOGY—POSTDOCTORAL RESEARCH ASSOCIATE. Two positions are available. One will involve the expression as well as characterization of protease genes of mammalian retroviruses in prokaryote and eukaryote vector systems. The other involves isolation of heat shock genes and gene products from human enteric adenovirus-infected cells. Send curriculum vitae and references to: **Dr. Ronald B. Luftig, Head, Department of Microbiology, Immunology and Parasitology, Louisiana State University (LSU) Medical Center, 1901 Perdido Street, New Orleans, La. 70112-1393. LSU is an Affirmative Action/Equal Opportunity Employer.**

PLANT MOLECULAR GENETICIST (REOPEN). The Department of Botany, Plant Pathology, and Microbiology of Auburn University invites applications for a tenure-track position at the assistant or associate professor level beginning immediately. Preference will be given to candidates who can document abilities in molecular genetics/biology of plants. Applicants must have a minimum of 1 year of postdoctoral training and a strong background in biochemistry and molecular biology. Responsibilities include development of a creative and vigorous research program in mechanisms of gene expression, and participation in undergraduate and graduate-level teaching. Please submit curriculum vitae, transcripts, reprints of research articles, a statement of professional goals/research interests, and names of three references to: **Dr. Robert T. Gudauskas, Department of Botany, Plant Pathology, and Microbiology, Auburn University, Auburn, Ala. 36849. Telephone: 205-826-4830.** This position is available immediately; applications will be accepted until a suitable candidate is found.

Auburn University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION as research associate available in fall 1985 for research in protein sulfhydryl biochemistry. Experience in enzymology, peptide mapping, and HPLC preferred. Please send curriculum vitae and three letters of recommendation to: **Dr. H. F. Gilbert, Department of Biochemistry, Baylor College of Medicine, One Baylor Plaza, Houston, Tex. 77030. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

MOLECULAR GENETICS/MOLECULAR BIOLOGY—UNIVERSITY OF IOWA

Highly qualified individuals are invited to apply for a faculty position in the area of molecular genetics/molecular biology. Although the position most likely will be filled at the level of assistant professor, an appointment at a more advanced level may be considered. The position is open to any molecular biologist whose research is focused on a question of fundamental interest to geneticists.

All candidates should have demonstrated expertise in modern molecular genetic techniques and should have had at least a year of postdoctoral research experience. The new appointee will be expected to develop a vigorous research program, participate in teaching introductory genetics, and teach a graduate level course in his/her area of research expertise.

Applicants should send curriculum vitae, including a summary of future research plans, and arrange to have three letters of recommendation sent to:

Dr. Gary Gussin, Genetics Search Committee, Department of Biology, University of Iowa, Iowa City, Iowa 52242.

Applications will be considered as they are received until the position is filled. We expect to begin interviewing the best-qualified applicants 1 February 1986. *The University of Iowa is an Affirmative Action/Equal Opportunity Employer.*

NEUROSCIENTIST. An appointment at assistant research professor level will be made in October 1986 for a person involved in electrophysiological analysis of medial pain system in acute and behaving animals and in vitro analysis of actions and binding of opioids. Minimum of 2 years and involves teaching neuroanatomy and histology. Send curriculum vitae, three references, and statement of research interests and goals to: **Dr. Brent A. Vogt, Department of Anatomy, Boston University School of Medicine, 80 East Concord Street, Boston, Mass. 02118. Equal Opportunity Employer, M/F.**

PALEONTOLOGY CURATOR MILWAUKEE PUBLIC MUSEUM MILWAUKEE, WISCONSIN

The Geology Section is searching for a field-oriented paleontologist. Candidate may be specialized in vertebrate or invertebrate paleontology or paleobotany. Sound publication record and clear indication of ability to generate grant funds required. Curator will be expected to maintain strong research program and be in charge of major segment of geology collections. Close relationship exists between museum and Geological Sciences, University of Wisconsin-Milwaukee, and curators have been thesis advisors to graduate students. Requires possession of doctoral degree with primary emphasis in field-oriented paleontology and experience in handling, describing, analyzing, and researching fossil specimens with emphasis on sedimentary environments, preferably in a museum. Annual salary range: \$21,921 to \$25,304. Promotional program to curator IV (geology) available after 2 years of experience and recommendation. Highly competitive benefits paid by the county. Application materials may be obtained from: **Milwaukee County Department of Human Resources, Courthouse Room 210, 901 North 9 Street, Milwaukee, Wis. 53233.**

PATHOLOGIST-IN-CHIEF

The Children's Memorial Hospital in Chicago is seeking an experienced academic pediatric pathologist to head the Department of Pathology. The candidate must be Board-certified in pathology. The candidate should have a strong commitment to teaching and research, as well as evidence of administrative ability.

The Department of Pathology operates as a laboratory service of the hospital and comprises anatomic pathology services and the clinical laboratories. The latter includes clinical chemistry, toxicology, microbiology, virology, the blood bank, and hematology. The Children's Memorial Hospital is the pediatric unit of Northwestern University Medical School, and all full-time staff of The Children's Memorial Hospital are on the faculty at Northwestern University.

Interested applicants should send their curriculum vitae and the names and addresses of three references to: **Andrew K. Poznanski, M.D., Chairman of the Search Committee for Pathologist-in-Chief, Department of Radiology, The Children's Memorial Hospital, 2300 Children's Plaza, Chicago, Ill. 60614. The Children's Memorial Hospital is an Equal Opportunity Employer.**

**POSTDOCTORAL TRAINING OPPORTUNITIES
in MOLECULAR BIOLOGY AND BIOCHEMISTRY
PUBLIC HEALTH RESEARCH INSTITUTE (PHRI)
455 FIRST AVENUE, NEW YORK, NEW YORK 10016
Participating Investigators**

Focus on Prokaryotic Systems

- Bhanot, Opinder**—Mutagenesis due to DNA replication related processing of apurinic, apyrimidinic, and carcinogen-induced lesion.
- Day, Loren**—Protein-nucleic acid interactions, structure of filamentous bacteriophages.
- Drlica, Karl**—Bacterial chromosome biology, DNA supercoiling and topoisomerases in *Escherichia coli* and *Rhizobium*.
- Dubnau, David**—Translational regulation, molecular cloning, genetic recombination, and plasmid replication in *Bacillus*.
- Mindich, Leonard**—Viral assembly using recombinant DNA techniques to study membrane biosynthesis and genomic packaging.
- Murphy, Ellen**—Site-specific recombination in *Staphylococcus aureus*, mechanism of transposition.
- Novick, Richard**—Regulation of variable gene systems in gram positive bacteria including plasmids, transposons, and virulence factors.
- Poindexter, Jean**—Morphogenesis and physiology of stalk bacteria, sub-cellular ultrastructure and function.
- Projan, Steven**—Plasmid replication in gram positive bacteria, control of DNA replication, molecular evolution of plasmids.
- Reese, Paul**—Protein biosynthesis and secretion in Gram-positive bacteria.
- Smith, Issar**—Control of development in *Bacillus*, factors involved in sporulation.
- Derman, Eva**—Control of developmentally regulated genes in mouse liver, tissue-specific patterns of mRNA synthesis.
- Kilejian, Araxie**—Biochemical, immunological, and genetic relationships of histidine-rich proteins of malaria parasites.
- Lusty, Carol**—Synthesis and transport of mitochondrial matrix proteins, regulation of arginine biosynthesis.
- Penefsky, Harvey**—Oxidative phosphorylation.
- Perlin, David**—Biochemistry and genetics of plasma membrane ATPase from yeast.
- Pinter, Abraham**—Structure and function of gene products of pathogenic retroviruses.
- Pullman, Maynard**—Mitochondrial ATPase inhibitors and oxidative phosphorylation.
- Ratner, Sarah**—Enzymatic mechanisms of nitrogen transfer in arginine and urea formation.
- Tilley, Shermaine**—Immunoglobulin gene rearrangements affecting gene expression, particularly those involving sister chromatid exchange.

APPLICATIONS: Letters of inquiry, specifying areas of research interest and including curriculum vitae and letters of recommendation, should be sent to: **Dr. David P. Beck, PHRI, 455 First Avenue, New York, N.Y. 10016.**

*Funded positions open immediately.

*Positions currently available to study molecular genetics of mycobacteria oriented toward clinical relevance (funding limited to U.S. citizens).

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Arthropod Borne Animal Diseases Research, Laramie, Wyoming, has openings for: **SUPERVISORY VETERINARY MEDICAL OFFICER, GM-14/15**, to lead a multidisciplinary team of scientists conducting studies on arbovirus diseases [bluetongue (BT) and epizootic hemorrhagic disease (EHD)] involving the complexities of virus-vector-host interactions. Investigates the mechanisms of insect infection, harboring of virus, and viral transmission to domestic animals. Future studies may involve viral encephalitis and vesicular stomatitis and other insect-transmitted viruses. Knowledge of research management, arbovirology, serology, microbiology, entomology, and biological safety of arboviruses is required. A D.V.M. or equivalent degree, plus 3 years of professional veterinary experience is needed to qualify. In addition to the D.V.M. degree, certain advanced graduate study may be substituted for some experience (Ph.D. degree is desirable). **VETERINARY MEDICAL OFFICER, GS-11/12**, to investigate the virologic and serologic responses of domestic animals to infection with insect-transmitted viruses (arboviruses), to investigate the pathogenetic process of the disease cycles, and to study the epizootic cycle of the diseases in the field. Knowledge of virology, molecular biology, epidemiology, serology, and immunology is required. A D.V.M. or equivalent degree, plus 1 year (2 years for GS-12) of professional veterinary experience. In addition to the D.V.M. degree, certain education may be substituted for experience (Ph.D. degree is desirable). **MICROBIOLOGIST OR RESEARCH CHEMIST, GS-11/12** (Interdisciplinary position), to investigate and characterize the immunologic responses of domestic animals to infection with insect-transmitted viruses (arboviruses) by the development and use of serologic and immunochemical techniques and the development of modern diagnostic techniques. Knowledge of immunochemistry, molecular biology, virology, and serology is required. A Ph.D. degree is desirable. Bachelor's degree in the appropriate field or equivalent education and experience, plus 3 years of professional experience or graduate education is needed to qualify. For additional information, telephone: **Dr. Thomas Walton, 303-236-7953**. For application procedures and application forms, telephone: **Cathleen Enuton, 301-344-3138**, Agricultural Research Service, Beltsville, Md. 20705. Applications for the supervisory VMO should be coded W-08, the second position for a VMO, W-07, and the third, W-04. Candidates must be U.S. citizens. Salary is commensurate with experience (GM-14, \$44,430 to \$57,759 and GM-15, \$52,262 to \$67,940 per annum), (GS-11, \$26,381 to \$34,292 and GS-12, \$31,619 to \$41,105 per annum). An Equal Opportunity Employer. Applications must be received by 31 January 1986.

**EXPERIMENTAL PHYSICIST
IN ATOMIC PHYSICS/SPECTROSCOPY
SPACE SCIENCE LABORATORY
NASA - MARSHALL SPACE FLIGHT CENTER
Huntsville, Alabama 35812**

The Atomic Physics Branch is seeking one or more researchers with a successful background in experimental atomic physics and spectroscopy to conduct research related to the physics, chemistry, and dynamics of the upper atmosphere and its response to the solar UV and particle energy influx. Areas of particular interest will be the measurement of cross-sections, reaction rate coefficients, surface effects, and excitation processes.

An experimental laboratory program is being established in support of the atmospheric physics and aeronomy studies. These studies include the induced space vehicle environment. Theoretical models are completed by spectroscopic and imaging investigations from the Space Shuttle, satellites, and high altitude balloons. Measurement capabilities extend from the extreme ultraviolet to the infrared and include state-of-the-art instrumentation incorporating intensified-CCD detectors and microprocessor control. State-of-the-art laboratory facilities and equipment are available for instrument design, development and calibration. Computer facilities offer various mini-computers including a VAX. These facilities are being upgraded and will soon be unsurpassed.

Salary will range from \$31,619 to \$37,599 per annum, depending upon experience. Forward resumes to the following address not later than November 15, 1985:

**Dr. M. R. Torr
ES55
Space Science Laboratory
NASA/Marshall Space Flight Center
Huntsville, AL 35812
(205) 453-0944**



An Equal Opportunity Employer

U.S. Citizenship Required



PROVOST, EXECUTIVE VICE PRESIDENT

The University of Miami invites nominations and applications for the position of Provost, Executive Vice President.

The person selected will be the chief academic officer of the University and its principal administrator under the President. Candidates should have outstanding academic credentials and show the capacity for leadership. Both scholarly achievement and administrative experience will be considered in the selection process.

The University of Miami is a private university with 1,300 faculty members and 14,000 students in undergraduate, graduate, and professional programs. The fourteen academic colleges and schools are Architecture, Arts and Sciences, Business Administration, Communication, Continuing Studies, Education and Allied Professions, Engineering, Law, Medicine, Music, Nursing, Rosenstiel School of Marine and Atmospheric Science, Graduate School of International Studies, and the Graduate School.

Nominations and applications should be submitted by October 15, 1985, to:

**Dr. Herbert Quay, Chairperson
Search Committee for Provost, Executive
Vice President
P.O. Box 8248185
University of Miami
Coral Gables, Florida 33124**

The University of Miami is a private, independent, international university and an Equal Opportunity, Affirmative Action Employer.

POSITIONS OPEN

PHARMACOLOGIST. Applications are invited for a new tenure-track faculty position in the Department of Pharmacology, University of South Carolina School of Medicine, Ph.D. and/or M.D. degree and postdoctoral experience required. The successful candidate will be expected to develop an independent research program which merits extramural support and to teach medical/graduate students. Preference will be given to individuals whose research interests are compatible with current faculty, for example, metabolic control mechanisms and biochemical mechanisms of drug action. Individuals should submit curriculum vitae, statement of professional goals, and the names of three references to: **Dr. D. O. Allen, Chairman, Department of Pharmacology, University of South Carolina School of Medicine, Columbia, S.C. 29208.** *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

PHARMACOLOGY. An assistant or associate faculty position is available in the Department of Pharmacology at Ponce School of Medicine. Candidates must have a Ph.D. in pharmacology and a strong commitment to teaching medical students. Candidates with research interests in antibiotics, endocrine, cardiovascular pharmacology, or toxicology are encouraged to apply. However, candidates will be considered in other areas. Interested individuals should forward curriculum vitae, names of three references, and a brief statement of research plans to: **Dr. Arthur L. Hupka, Professor and Chairman, Department of Pharmacology, Ponce School of Medicine, P.O. Box 7004, Ponce, Puerto Rico 00732.** *Equal Opportunity Employer.*

POSTDOCTORAL FELLOW—Ph.D. in biochemistry, physics, or related biomedical field for position in Department of Pediatrics at the University of Illinois at Chicago. Experience in NMR spectroscopy essential. Knowledge and experience in erythrocyte metabolism and/or hemoglobin biochemistry highly desirable. Send résumé to: **Richard Labotka, M.D., University of Illinois at Chicago, Department of Pediatrics, 840 South Wood Street, Chicago, Ill. 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF ALBERTA DEPARTMENT OF GENETICS MOLECULAR GENETICIST

A vacancy is available for a molecular geneticist, at the assistant professor level. The tenure-track appointee will have teaching duties primarily within an undergraduate program in cell biotechnology. Candidates should have a Ph.D. and postdoctoral research experience in molecular genetics; establishment of an independent research program will be an integral part of the appointee's duties. Candidates with a well-rounded understanding of modern techniques of in vivo and in vitro genetic manipulation, and their applications, will receive high consideration.

Genetics currently has 14 faculty, housed in a modern research facility in the Faculty of Science; research emphasis is molecular biological. The biotechnology program, offered jointly with microbiology, stresses genetics, microbiology, chemistry, and biochemistry. The University of Alberta, Alberta's senior university, has 25,000 students. Heavy emphasis on biosciences is found in the Faculties of Science, Medicine, and Agriculture. Edmonton is a city of 500,000, a supply center for agriculture and petroleum industries and Alberta's capital.

The appointment will commence 1 July 1986. Salary will be in the range of \$30,316 to \$43,780, commensurate with qualifications. An appropriately qualified appointee may be eligible for substantial research establishment funding from the Alberta Heritage Foundation for Medical Research.

Applicants should send curriculum vitae, reprints of research publications, and the names and addresses of at least three referees to: **Dr. David Nash, Chairman, Department of Genetics, University of Alberta, Edmonton, Alberta, Canada T6G 2E9.**

The closing date for applications is 31 December 1985.

The University of Alberta is an Equal Opportunity Employer but in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

POSITIONS OPEN

PLANT/CELL PHYSIOLOGIST. Tenure-track position at the assistant professor level. Appointment effective January 1986. Strong background in plant sciences required. Teaching responsibilities may include plant physiology, cell physiology, general botany, and upper-level courses. Successful candidate will establish an active research program. Experience with tissue culture, whole plants, or horticulture is desirable. Ph.D. in plant physiology or plant cell physiology required. Postdoctoral experience desirable. Forward curriculum vitae, reprints, transcripts, names of three references, and a one-page statement of goals to: **Dr. Archibald Reid, Department of Biology, State University of New York—College of Arts and Science, Geneseo, N.Y. 14454.** Deadline: 15 November 1985. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL AQUATIC ECOLOGIST. Recent Ph.D. with strong background in experimental and quantitative aspects of field-oriented freshwater ecology; and training/experience in ecological impacts of acid deposition, ecological inventory/monitoring methods, and conservation/restoration of aquatic communities. Send curriculum vitae, transcripts, summary of research interests, and three letters of reference to: **Dr. John H. Fitch, Director, Environmental Science Department, Massachusetts Audubon Society, Lincoln, Massachusetts 01773,** by 25 October 1985. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION— NEUROBIOLOGY

Applications are invited for a postdoctoral fellow or research associate position to study synaptic plasticity following hyperplasia of the noradrenergic innervation of motor neurons. The laboratory is engaged in adrenergic receptor measurements, fluorescence histochemistry, and intracellular electrophysiological studies. Send letters of application, including current curriculum vitae, description of research interests, and the names of three individuals who can be contacted for references, to: **Dr. Jerome Sutin, Department of Anatomy and Cell Biology, Emory University School of Medicine, Atlanta, Georgia 30322.** *Emory University is an Affirmative Action/Equal Opportunity Employer.*

THE UNIVERSITY OF VERMONT

Chairperson

DEPARTMENT OF COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

Nominations and applications are invited for the position of chairperson for the Department of Computer Science and Electrical Engineering. The chairperson is responsible to the dean of the College of Engineering and Mathematics for the administration and planning of instruction, research, service activities, and graduate student development. The department, which consists of eleven electrical engineers and six computer scientists, offers both masters and doctoral degrees and has specialties in materials science, biomedical engineering, computer science and electrical engineering.

Candidates should possess the doctorate in one of the areas represented within the department and present a documented record of leadership and professional accomplishment in both sponsored research and teaching. In addition, the candidate should be able to interact with large computing and electronics industries in the state of Vermont. The position will be available at the start of the 1986–1987 academic year. *Nominations of, and applications from, qualified female and minority candidates are especially invited.* Nominations and applications (including résumé and names and addresses of three references) must be submitted by 15 December 1985 to:

**Professor Roger L. Cooke, Chairperson
CSEE Search Committee
Office of the Dean
123 Votey Building
College of Engineering and Mathematics
The University of Vermont
Burlington, Vt. 05405-0156**

The University of Vermont is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POPULATION/QUANTITATIVE GENETICIST

Tenure-track assistant professor position for population/quantitative geneticist with demonstrated excellence in experimental field and/or laboratory research and competence in mathematical aspects of evolutionary theory. The successful candidate should be able to teach in an introductory genetics course, develop a course in population/quantitative genetics, serve on the faculty of the Graduate Program in Ecology and Evolutionary Biology, and participate in academic advising. Candidates must have a Ph.D., potential for excellence in teaching, ability to develop an independently funded research program, and potential to interact productively with faculty in ecology, evolutionary biology, genetics, mathematics, and applied mathematics. Applicants should submit a résumé, including research and teaching experience, future research plans, and a list of publications, and have three letters of reference, to be received by 2 December 1985, sent to: **Douglass H. Morse, Section of Population Biology, Morphology, and Genetics, Division of Biology and Medicine, Brown University, Providence, Rhode Island 02912.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. A 2-year position is funded as of 1 April 1986 in the area of ion channels. Salary plus benefits commensurate with experience. Recent Ph.D.'s with interest in single-channel analysis, planar bilayer reconstitution, toxins, and membrane protein biochemistry are invited to send curriculum vitae and letters of recommendation to:

**Dr. E. Moczydlowski
Department of Physiology and Biophysics
University of Cincinnati
Cincinnati, Ohio 45267-0576**

POSTDOCTORAL IN NEUROCHEMISTRY available immediately to study catecholamine transport into adrenal chromaffin vesicles. Experience in bioenergetics, transport, or purification of membrane proteins desirable. Send curriculum vitae and names of three references to: **Dr. David Njus, Biological Sciences, Wayne State University, Detroit, Michigan 48202.** *An Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

SUPERVISORY PLANT PHYSIOLOGIST, GM-435-13/14/15, Southern Regional Research Center, New Orleans, Louisiana. ARS is seeking a research leader in plant growth regulation research. Applications are invited for a position leading a group of chemists and plant physiologists in research on various aspects of plant growth and development. Current research areas include: (i) the effects of plant growth regulators on enzymes and flavor determinants in peanuts, (ii) the effects of heat and drought stress on the chemical composition of crop plants, (iii) the biochemical and molecular basis for regulated cotton seed and fiber growth and development, and (iv) a study to reduce oilseed deterioration during weathering and storage. Specific research objectives of the research leader will be involved in studying the mode of action of plant growth regulators on peanuts. Ph.D. desirable. Extensive research experience and demonstrated administrative experience are also desirable. Salary is commensurate with experience, GM-13/14/15 (\$37,590 to \$52,262).

PLANT PHYSIOLOGIST, Southern Regional Research Center, New Orleans, Louisiana. ARS is seeking a scientist to lead a multidisciplinary team studying the biosynthetic pathways involved in cotton seed and fiber development, characterizing specific genes critical to seed and fiber quality, and regenerating cotton plants and fiber from tissue culture. Research experience on the physiology and genetics of cotton seed, fiber and embryo development and novel methods for crop improvement are essential qualifications. Ph.D. is desirable in plant physiology, biochemistry, or genetics and experience with leading a research group. Salary is commensurate with experience, GS-13/14 (\$37,599 to \$44,430). For information on the research program and/or both positions, contact: **E. J. Congerton, telephone: 504-589-7075.** For information on applications procedures/forms, contact: **J. K. Lynch, telephone: 301-344-1508.** Applications must be postmarked by 30 November 1985. Mailing address: **USDA, ARS, Personnel Operations Branch, Southern Section-S03, Building 417, BARC-E, Beltsville, Md. 20705.**

An Equal Opportunity Employer

Pharmacologist - Infectious Diseases Scientist

We are seeking an in vivo Scientist with a Ph.D. in pharmacology and a strong background in infectious diseases microbiology, or a Ph.D. in infectious diseases related microbiology and a strong background in pharmacology. Previous experience in small animal experimentation is essential.

The successful candidate will conduct in vivo studies necessary for evaluation of new antibiotics and other infectious disease therapies.

Individual will have primary responsibility for pharmacologic evaluation of experimental antibiotics including determination of blood levels, tissue distribution, and effect of route of administration of ADME. In addition the individual will conduct research to improve the pharmacologic properties of selected agents. Secondary responsibilities will include efficacy testing in existing models, new animal model development, research on infectious processes and intervention of these processes.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers an excellent salary, commensurate with experience and an outstanding benefits program.

For confidential consideration, please call toll-free 1-800-253-8600, ext. 3-6767 (inside Michigan collect (616) 323-6767) to request an employment application. Refer to Ad Number 18006-F when calling.

Upjohn

A century of caring

An Equal Employment Opportunity Employer M/F

Toxicologist

Conduct toxicological research and testing in an industry-paced laboratory.

Allied—a Fortune 30 corporation—has an immediate opening in the Corporate Technology Toxicology Laboratory for a PhD or ScD with 0-2 years experience to act as study director for acute, subacute and subchronic oral and dermal toxicity studies. Primary responsibilities will include dosage, implementation, analysis, interpretation, report preparation and technical supervision of studies done in multiple species. You should have training in toxicology or pharmacology, be acquainted with testing procedure, and have adequate statistical background. Experience or training in *in vitro* techniques and cell culture desirable.

Position is located at Corporate Headquarters in Morristown, New Jersey. You will enjoy an excellent starting salary, comprehensive benefits, and opportunities for professional advancement. Relocation assistance will be provided. For prompt consideration, send your resume and salary history to:
Mrs. E.V. Lord, Employment Supervisor,
Corporate Technology, Allied Corporation,
P.O. Box 1021R, Dept. T, Morristown, New Jersey 07960.

An equal opportunity employer



Six Research Positions

The Primate Research Institute (PRI), New Mexico State University, is undertaking a major expansion program. PRI engages in multidisciplinary basic and applied research in the areas of toxicology, pharmacology, veterinary science, pathology, reproductive physiology, primatology, metabolism, and infectious diseases. Projects are funded by industry and government grants and contracts. Doctoral-level positions in the following areas are now open:

VETERINARY PATHOLOGIST: Associate Professor to direct pathology laboratory. Responsible for pathology support of primate colony (2000 animals) and all pathology aspects of GLP safety studies (both rodents and primates). Board certification desirable. GLP and industrial experience helpful.

PHARMACOLOGIST/METABOLIC CHEMIST: Assistant/Associate Professor. Earned doctorate in pharmacology or metabolic chemistry with experience in separation and identification of drug metabolites in biological matrices. Toxicology and pharmacokinetic experience desirable. PRI is interested in further development of the chimpanzee as a metabolic and pharmacokinetic model of man.

REPRODUCTIVE PHYSIOLOGIST: Postdoctoral, to participate in reproductive endocrinology program and to assist in evaluation of efficacy, toxicity and teratogenicity of new drugs. Experience in RIA, receptor assays, sexual differentiation of the CNS or immunoreproduction would be assets. One year appointment renewable for one year. Further promotion commensurate with performance.

CLINICAL VETERINARIANS (2): Assistant Professors: Veterinarians with interest in laboratory animal medicine and research. Recent graduates will be considered; however, specialty training in primate medicine and/or laboratory animal medicine is preferred. Candidates must be licensed to practice veterinary medicine in the United States. Responsibilities will include health-care management of laboratory animal colonies and research support. One position will be responsible for supervision of neonatal care of approximately 30 government-supported chimpanzees.

IMMUNOLOGIST/VIROLOGIST: Associate/Full Professor: Senior person with extensive research credentials to establish a virology, immunology and/or vaccine development program using PRI's extensive chimpanzee colony. Will supervise an on-going hepatitis research program. Good potential for AIDS-related research. PRI envisions establishing an integrated group of several professionals in these areas and will entertain proposals to relocate an entire group.

Salaries will be competitive and commensurate with experience and the salary structure of the professional field. Opportunities exist to pursue individual research interests, to collaborate with on-campus scientists and to teach and interact with graduate students. Deadline for applications is November 15 or until positions are filled.

The Institute has 100+ employees and is located on Holloman Air Force Base, near Alamogordo, New Mexico, at the foot of the Sacramento Mountains. Living costs are among the lowest in the United States. Climate and living conditions are superb, with 350 days of sunshine per year. Staff members can choose to live in any climate between high desert and alpine forests.

New Mexico State University is an Equal Employment Opportunity/Affirmative Action Employer.

Send resume, letter of interest, and names of two references to:

Dr. William C. Hobson, Director
PRIMATE RESEARCH INSTITUTE
P.O. Box 1027
Holloman AFB, NM 88330-1027



POSITIONS OPEN

POSTDOCTORAL

Position—Gene Regulation. A postdoctoral position is available for studies of muscle gene regulation in *Drosophila*. Current work involves studies on promoter and alternate splicing function in transformed flies and in vitro. Preference will be given to candidates with experience in molecular biology and recombinant DNA. Send curriculum vitae to: **Dr. Robert Storti, Department of Biochemistry, University of Illinois at Chicago College of Medicine, 1853 West Polk Street, Chicago, Ill. 60612.**

The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available in summer of 1986 by application to Alberta Heritage Foundation for Medical Research, to study the internal control of food intake. Use surgical and/or infusion techniques to study long-term changes in intake and body weight. All qualified individuals are encouraged to apply, but preference will be given to Canadian citizens and permanent residents. Send curriculum vitae, three letters of reference, and a brief statement of research interests by 1 December 1985 to:

Dr. Henry Koopmans
Department of Medical Physiology
The University of Calgary
Faculty of Medicine
3330 Hospital Drive, NW
Calgary, Alberta, Canada T2N 4N1

POSTDOCTORAL POSITION to study biosynthesis of bacterial cell wall components. Current areas of interest include the coordinated synthesis of teichuronic acid and peptidoglycan, characterization of the linkage oligosaccharide by which teichuronic acid is covalently attached to peptidoglycan, mechanistic study of saccharide incorporation, and localization of teichuronic acid in the cell wall. Salary: \$19,000, depending on extent of experience. Applicants should have a Ph.D. in biochemistry or a related field. Send curriculum vitae and names of three references by 1 December 1985 to: **Dr. John S. Anderson, Department of Biochemistry, 1479 Gortner Avenue, University of Minnesota, St. Paul, Minn. 55108.** *The University of Minnesota is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from women and minorities.*

POSTDOCTORAL POSITIONS: Oxidative Tissue Injury and Cell Dysfunction

Three research associate positions open after 1 January 1986 for the study of mechanisms of chemically induced lung/heart injury. Background in one of the following areas is desirable: free radical biology, cardiopulmonary physiology, cancer chemotherapy, and pharmacology/toxicology. Salary will be commensurate with experience. Send curriculum vitae and names of three references to:

Dr. Hara P. Misra, DPPP
Virginia-Maryland Regional College
of Veterinary Medicine
Virginia Tech
Blacksburg, Va. 24061

Closing date: 30 November 1985.
Starting date: 6 January 1986.

An Equal Opportunity/Affirmative Action Institution

POSTDOCTORAL POSITION in biochemistry/chemistry; 2 to 3 years; \$16,000 per year or more, depending on experience. Research concerns the dynamic structure of proteins, monitored by the hydrogen exchange kinetics of assigned proton resonances in the high resolution NMR spectrum. Ph.D. in chemistry or biochemistry required. Research experience with biopolymers preferred. Contact: **Dr. Clare Woodward, Department of Biochemistry, University of Minnesota, St. Paul, Minn. 55108.** Telephone: 612-373-1766.

POSTDOCTORAL POSITION IN MOLECULAR PARASITOLOGY. Research molecular biologist, GS-401-11/12. Available immediately. Salary: \$26,381 to \$31,619 (NER-PA-021). Need recent Ph.D. to join ongoing study of molecular biology of avian coccidian parasites (*Eimeria*). Project goal: clone and express genes encoding parasite antigens. Cloning experience preferred. U.S. citizenship required. Send curriculum vitae and references by 30 October to: **John B. Dame, Ph.D., U.S. Department of Agriculture, Agricultural Research Service, Biosystematic Parasitology Laboratory, Building 1180, BARC-East, Beltsville, Md. 20705.** *An Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS: MECHANISMS OF MUTATION. Studies identifying the molecular and genetic determinants of mutation using combined in vivo/in vitro approaches. Dr. Z. Humayun—DNA structure, carcinogen reactivity and mutagenic repair in *Escherichia coli* lacZ and yeast GAL genes. Dr. L. Ripley—Frameshift mutation, DNA polymerization fidelity, DNA secondary structures, and intercalating mutagens. Laboratories are well-equipped and offer a basic research environment close to New York City. Send curriculum vitae and three references indicating position of interest to: **Department of Microbiology, F-608, University of Medicine & Dentistry of New Jersey (UMDNJ), 100 Bergen Street, Newark, N.J. 07103.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH—MOLECULAR TOXICOLOGY positions available to start fall 1985 to mid-1986. Mechanistic aspects of the interactions of cytochrome P-450 and other hemoproteins with phenolic, quinonoid, and peroxy compounds. Synthesis, structure elucidation, extensive use of analytical techniques (chromatography, GC/MS, NMR and EPR). Prefer background in organic, bioorganic, or analytical chemistry. Salary range: \$17,500 to \$19,500 plus benefits. Contact: **Dr. John A. Thompson, Pharmaceutical Sciences, C.B. 297, University of Colorado, Boulder, Colo. 80309.** *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

The Parasitic Diseases Research Program of Puerto Rico at the Department of Biology of the University of Puerto Rico, Rio Piedras Campus, is seeking **POSTDOCTORAL RESEARCH ASSOCIATES** with primary interest in schistosomiasis as a model. Investigations involve the application of molecular genetics and basic immunology to immunity and immunodiagnosis of schistosomiasis and fascioliasis and the relationship of multiple concurrent infections between bacterial infections and schistosomiasis. Individuals would work with either Dr. George V. Hillyer or Dr. Terry C. Hazen. Preference will be given to those candidates with strong credentials for, and commitment to, developing an independent research program.

The position will be for 1 year with an option for renewal for one or more years depending on progress. Interested individuals should send curriculum vitae and a letter stating past, present, and future research interests, and have three letters of recommendation transmitted to: **George V. Hillyer, Professor and Chairman, Department of Biology, University of Puerto Rico, Rio Piedras Campus, Rio Piedras, P.R. 00931.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available in the area of β -adrenergic receptor biology. Development and use of immunological probes, especially monoclonal antibodies to receptor peptides. Collaborative industry/university opportunity with Dr. C. C. Malbon, Department of Pharmacology, State University of New York at Stony Brook and **GENETIC DIAGNOSTICS CORPORATION.** Competitive salary and fringe benefits. Submit a résumé of research interests, curriculum vitae, and three letters of reference to: **Dr. Harvey Brandwein, Director of Scientific Affairs, GENETIC DIAGNOSTICS CORPORATION, 160 Community Drive, Great Neck, New York 11021.**

POSTDOCTORAL RESEARCH ASSOCIATE. Available immediately in an active cardiac physiology research laboratory for evaluating the role of fatty acid intermediates on inhibition of energy production and mechanical function ischemic myocardium. Background and experience with mitochondria and submitochondrial particles with emphasis on bioenergetics are required. Training in cardiac physiology and experience with intact working heart preparation would be valuable. Send a letter of application, curriculum vitae, and names of three references to: **Dr. A. J. Liedtke, Chairman, Division of Cardiology H6/338, Clinical Science Center, 600 Highland Avenue, Madison, Wis. 53792.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE—METHYLOTROPHIC NITROGEN FIXATION

Applicants should have experience in enzymology and enzyme purification. Experience with N_2 fixing or methylotrophic bacteria desirable. Position available immediately. Send résumé and two letters of recommendation to: **Dr. D. C. Yoch, Department of Biology, University of South Carolina, Columbia, S.C. 29208.** Telephone: 803-777-2322. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TWO POSTDOCTORAL RESEARCH ASSOCIATES and a **RESEARCH SPECIALIST** to work on the development of microorganisms for enhanced degradation of xenobiotic compounds. The work involves characterization of pseudomonas promoters by S1 nuclease mapping and DNA sequencing as well as sequencing of unique repeated sequences present at the terminal parts of 2,4,5-T degradative genes. Must have experience in molecular biological techniques such as northern hybridization, DNA sequencing, and so forth. The work will be conducted at the EPA laboratories at Cincinnati, Ohio, and at Gulf Breeze, Florida, under the direction of A. M. Chakrabarty of the University of Illinois under a 3-year contract with the EPA.

Please send a copy of your resume to: **Kenneth E. Johnson, University of Illinois at Chicago, Micro/Immuno E-703 MSA, 835 South Wolcott, Chicago, Illinois 60612.** *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

The Department of Ecology and Evolutionary Biology, University of California, Irvine (UCI), announces a new tenure-track (assistant professor) position for a **QUANTITATIVE EVOLUTIONARY THEORIST**, to join our expanding and excellent group of evolutionary biologists. The group now includes a quantitative geneticist, an experimentalist in microbial coevolutionary processes, and a specialist in the evolution of life-histories and genetic systems. To this more empirically oriented core of individuals we wish to add an interactive individual with highly theoretical and quantitative approaches to evolutionary studies of either plant or animal systems. We are looking for persons only of exceptional merit, and postdoctoral experience is required. *UCI is an Equal Opportunity/Affirmative Action Employer.*

Please send letter of application, curriculum vitae, reprints (published) or manuscripts (in press) of key publications, statement of research interests and goals, and names, addresses, and telephone numbers of at least four references to:

Search Committee
Department of Ecology and Evolutionary Biology
University of California
Irvine, California 92717

Deadline for receipt of application is 15 November 1985.

RESPIRATORY NEUROPHYSIOLOGIST

Ph.D. sought to join three investigatively oriented and funded M.D.'s in a Pulmonary Division of a Department of Medicine. The group has interest in ventilatory control, hypoxia, upper airway physiology, and sleep disordered breathing. Ample laboratory space and initial research funds are available. A tenure-track faculty appointment with the Department of Medicine with a coappointment within the Department of Physiology is offered. Candidates should forward their curriculum vitae to: **Clifford Zwillich, M.D., P.O. Box 850, Department of Medicine, The Pennsylvania State University Medical Center, Hershey, Pa. 17033.** Applications must be received no later than 1 December 1985. *An Equal Opportunity/Affirmative Action Employer.*

SUPERVISORY PHYSICAL SCIENTIST or OCEANOGRAPHER: The Great Lakes Environmental Research Laboratory of the National Oceanic and Atmospheric Administration in Ann Arbor, Michigan, is seeking a senior level scientist to manage its Physical Limnology and Meteorology Group. Duties include directing a group of scientists, engineers, and technicians involved with research on Great Lakes water movements, temperature, waves, and oscillations with theoretical and experimental approaches to improve Great Lakes prediction. This position is in the Competitive Service and may be filled at either the GS-15 or GS-14 level. Entrance level salaries are \$52,262 and \$44,430 per annum, respectively. **SELECTION FACTORS:** Applicants should have demonstrated research ability and comprehensive understanding and be capable of directing research in the hydrodynamics of ocean, lakes, and the atmosphere, and in numerical prediction and simulation methods. Additional technical information may be obtained from: **Dr. Eugene J. Aubert, telephone: 313-668-2245.** Submit Form 171 and detailed résumé including bibliography of relevant publications, research experience, references, and education to: **Central Administrative Support Center—Personnel, 1747 Federal Building, 601 East 12 Street, Kansas City, Mo. 64106.** Applications must be postmarked no later than 8 November 1985 to receive consideration. *An Equal Opportunity Employer.*

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR

A department at the University of Texas Health Science Center at Dallas (UTHSCD) invites applications for a nontenure position as research assistant professor. Must have M.D. or Ph.D. in biochemistry or equivalent and at least 3 years of postdoctoral training or experience in molecular biology which must include laboratory work in gene cloning, tissue culture, lipoprotein metabolism, protein purification, DNA sequencing, and gene transfer. In addition to teaching duties for medical students, graduate students, and postdoctoral fellows, the appointee will be expected to participate in research involving the molecular basis of cholesterol metabolism and supervise technicians. Qualified individuals should send their curriculum vitae and cover letter to: **Personnel Department, Attention: Z 701, UTHSCD, 5323 Harry Hines Boulevard, Dallas, Tex. 75235.** An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE. University of Medicine and Dentistry of New Jersey (UMDNJ), Radiation Oncology Division, invites applications for appointment to new research unit to study cellular effects of radiation therapy. Experience with cell-mediated immunology, cell culture, flow cytometry desirable. M.S. and 2-plus years of immunology, tumor/radiation biology experience required. Send curriculum vitae and three references to: **S. M. Stowe, M.D., Radiation Oncology, CRT-1020, New Jersey Medical School, University of Medicine and Dentistry of New Jersey, 100 Bergen Street, Newark, N.J. 07103.** An Equal Opportunity/Affirmative Action Employer, M/F/H/V.

RESEARCH SCIENTIST—Expanding Toxicology Laboratory seeks M.S. or preferably Ph.D. with GC, GC/MS, HPLC, and drug analysis training and expertise. Strong verbal and written communication skills. Comprehensive compensation and benefits package. Send résumé to: **Bio-Analytical Technologies*, 2300 Children's Plaza, Chicago, Illinois 60614** (*division of C. M. Providers Inc., affiliated with Children's Memorial Hospital, Chicago). An Equal Opportunity Employer.

POSITIONS OPEN

Ecogen Inc., an expanding biotechnology company located near Princeton, N.J., and specializing in microbial pesticide development, has immediate openings for both **RESEARCH SCIENTISTS** (Ph.D. required) and **RESEARCH ASSISTANTS**. Areas of expertise and training desired:

- **Molecular Biology**
Expertise in DNA cloning and sequencing as well as in vitro mutagenesis techniques.
- **Microbial Genetics**
Expertise in bacterial genetics (especially with *Bacillus* species).
- **Field Research/Development**
Expertise in the design and implementation of field plots for statistical evaluation of agricultural products performance; experience in insecticide evaluation desirable.

- **Formulations**
Expertise in evaluating the parameters affecting pesticide efficacy and the development of methodologies to improve field performance. Experience with microbial products particularly desirable.

Interested applicants send résumé and names and addresses of three references to:

Dr. Bruce C. Carlton
Vice President for Research and Development
Ecogen Inc.
P.O. Box 6818
Lawrenceville, N.J. 08648

RETROVIROLOGIST. Applications are invited for a retrovirologist to investigate the replication of human T-cell lymphotropic virus and modulation of viral replication/gene expression by antiviral agents. Individuals with background in molecular virology and recombinant DNA technology are encouraged to apply. Preference will be given to candidates with expertise in retrovirus research and lymphocyte biology. Send curriculum vitae, names of three references, and brief summary of research accomplishments and goals to: **Dr. Raxit Jariwalla, Director of the Viral Carcinogenesis Program, Linus Pauling Institute of Science and Medicine, 440 Page Mill Road, Palo Alto, California 94306.** Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR to execute research project to assess effects of marijuana smoke on resistance to experimental infections and to conduct in vivo screening of novel compounds for treatment of disseminated mycotic infections. Duties include: training and supervision of technical staff; preparation of reports, manuscripts, and grants and contract proposals; some teaching may be required. Applicants must have Ph.D. in veterinary microbiology, D.V.M., and 2 years of experience in veterinary diagnostics. Salary commensurate with experience. Deadline for application is 4 November 1985. Address résumé to: **Dr. E. Sue Watson, Research Institute of Pharmaceutical Sciences, University of Mississippi, University, Miss. 38677.**

Equal Opportunity Employer

BROWN UNIVERSITY Virologist

A full-time, tenure-track position is available as of 1 July 1986 for an assistant professor of medical science in the Section of Molecular, Cell and Developmental Biology at Brown University. The section is responsible for teaching medical, graduate, and undergraduate students, and its faculty are members of the Graduate Program in Molecular Biology, Cell Biology and Biochemistry. We seek an individual with an active research program in animal virology who can interact with other members of the Graduate Program. The candidate should have a doctoral degree and at least 2 years of postdoctoral research training. The successful candidate will teach virology in the medical microbiology course and will participate in other courses offered by the section as well as in student advising.

Send curriculum vitae, a brief description of research plans, and have three letters of recommendation forwarded no later than 15 December 1985 to:

Dr. Paul M. Knopf
Division of Biology and Medicine
Brown University
Providence, R.I. 02912

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Staff Scientist Research & Development

Geometric Data, a leading manufacturer of biomedical instrumentation, is seeking a talented Immunochemist to join the Research & Development team. Principle responsibilities involve the development of diagnostic reagents using labeled probes and cytometric analysis and the design and implementation of experiments for immunochemical analysis of reagents.

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Geometric Data is located in a quiet suburban area near Valley Forge, Pennsylvania, approximately 20 miles northwest of Philadelphia. We offer an attractive compensation and company paid benefits package and an environment which fosters personal and professional growth. Interested applicants are urged to send resume, stating salary requirements, in confidence to: **Manager Human Resources, GEOMETRIC DATA, a SmithKline Beckman Company, 999 West Valley Road, Wayne, PA 19087, Equal Opportunity Employer, M/F/H/V.**



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MANAGER, ANIMAL HEALTH CLINICAL DEVELOPMENT

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The successful candidate will have extensive scientific knowledge and experience in animal production and animal disease etiology, diagnosis and therapy. Three to four years of experience in animal health drug development projects, including monitoring of field trials and two or more years of experience in veterinary practice are desirable.

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POSITIONS OPEN

RESEARCH ASSOCIATE

Ph.D. with at least 2 years of postdoctoral research experience studying protein kinase C in cell culture systems. This individual will work in the laboratory under the direction of Dr. Richard A. Carchman. Please send curriculum vitae and the names of three references to:

Louis S. Harris, Ph.D., Chairman
Department of Pharmacology and Toxicology
Medical College of Virginia/
Virginia Commonwealth University
MCV Station, Box 27
Richmond, Va. 23298-0001

Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH POSITION available to participate in an ongoing recombinant-DNA project. Person must have experience with modern methods in molecular biology, SDS-PAGE, cloning, and gene sequencing. Qualified applicants should have a B.S. or M.S. in the biological sciences with at least 2 to 3 years of laboratory experience. Liberal benefits offered and salary will be commensurate with experience. To apply, send curriculum vitae and letters of reference to: **Personnel Manager, W. Alton Jones Cell Science Center, 10 Old Barn Road, Lake Placid, New York 12946.** Refer to Job Order CR 8507.

Affirmative Action/Equal Opportunity Employer

NEW YORK CITY DEPARTMENT OF HEALTH—RESEARCH SCIENTIST—RETROVIROLOGY AND IMMUNOBIOLOGY. Highly motivated and qualified individual to join existing 15-person research virology and immunology unit, including Ph.D. virologist and M.D. immunologist, in the capacity of assistant to the director for Operations and Research Coordination. Candidates with a strong background in molecular virology, cellular immunology, and biochemistry are encouraged to apply. Desire Ph.D. with at least 3 years of post doctoral experience in one or more of the following: virus isolation and characterization, protein purification and characterization using HPLC, monoclonal antibody generation and characterization, and recombinant DNA techniques. New York City residency required. Send résumé to: **Edward Bourne, New York City Department of Health, 125 Worth Street, Room 908, New York, N.Y. 10013.** *Equal Opportunity Employer, M/F/H/V.*

HARVARD UNIVERSITY WHOLE-PLANT PHYSIOLOGIST

The Department of Organismic and Evolutionary Biology invites applications for an assistant professorship in the area of whole-plant physiology, especially of vascular plants. The incumbent will be expected to develop a strong teaching and research program involving undergraduate and graduate students. Although the position is available beginning 1 July 1986, the starting date could be delayed to permit the completion of a postdoctoral appointment.

Those interested in applying should send a letter describing teaching/research experience and future plans, curriculum vitae, and copies of representative publications, and have three letters of recommendation sent to: **Whole-Plant Physiology Search Committee, Department of Organismic and Evolutionary Biology, Harvard University, 26 Oxford Street, Cambridge, Massachusetts 02138,** no later than 1 December 1985.

Harvard University is an Affirmative Action/Equal Opportunity Employer.

SYMPOSIUM

A **symposium** in honor of **CLARENCE ZENER**, on the occasion of his 80th birthday, celebrating his landmark contributions to science and engineering, will be held at: **CARNEGIE-MELLON UNIVERSITY (CMU), PITTSBURGH, Pa. 15213,** on **SATURDAY, 23 NOVEMBER 1985.** Papers will be presented by R. J. Duffin, M. Hillert, F. Seitz, C. A. Wert, and J. Weertman on the impact of Zener's work, and by C. Zener. Registration fee of \$60 includes proceedings, lunch, and banquet (speaker H. A. Simon). For registration or information, contact: **W. W. Mullins (CMU), telephone: 412-578-2541.**

PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in 2 calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 12, 424 Beacon Street, Boston, Mass. 02115.**

ASSISTANTSHIPS

GRADUATE TRAINING IN BIOCHEMISTRY AND BIOPHYSICS at the University of Hawaii. Join our active medical school department engaged in numerous research projects of interest and importance. Unique geographical and cultural setting. Predoctoral teaching and research assistantships available September 1986 to qualified applicants. Write to: **Chairman, Department of Biochemistry and Biophysics, University of Hawaii, Honolulu, Hawaii 96822.** *An Equal Opportunity Employer.*

FELLOWSHIPS

C. H. BEST FOUNDATION POSTDOCTORAL FELLOWSHIPS

In diabetes research, molecular endocrinology, molecular biology, differentiation, reproductive biology, immunology, structure and function of membranes or lipid metabolism. Tenable in the Banting and Best Department of Medical Research for 2 years after 1 July 1986 with a competitive stipend. Available to new Ph.D.'s or candidates with less than 2 years of postdoctoral training by 30 June 1986. Send curriculum vitae, transcripts, and three letters of reference preferably before 1 November 1985 to: **Dr. Terry Delovitch, Fellowship Committee Chairman, Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, Canada M5G 1L6.**

POSTDOCTORAL FELLOWSHIP IN CLINICAL LABORATORY IMMUNOLOGY. Applications are invited for a 2-year fellowship in clinical laboratory immunology at North Carolina Memorial Hospital (NCMH) and the University of North Carolina (UNC). Fellowship provides residency-type training in laboratory immunology through laboratory experience, conferences, and research. Send curriculum vitae and three letters of reference before 25 November 1985 to: **Dr. James D. Folds, Clinical Microbiology-Immunology Laboratories, 1035 SST, North Carolina Memorial Hospital, Chapel Hill, N.C. 27514.** *The UNC/NCMH is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY PREDOCTORAL FELLOWSHIPS

Established for outstanding students in the biological sciences. Department emphasizes evolutionary and environmental biology, from molecular to community levels of organization. Stipend is \$12,000 for 12 months, renewable, includes tuition and fee waiver, plus no teaching or other duties. For prompt consideration, applications should be completed by 15 February 1986. *Black students are especially encouraged to apply.* Contact: **Graduate Coordinator, Department of Biology, University of Southwestern Louisiana, Lafayette, La. 70504.** Telephone: 318-231-6748.

POSTDOCTORAL FELLOWSHIPS—The Lineberger Cancer Research Center of the University of North Carolina (UNC) at Chapel Hill will have openings in 1985–1986 for persons completing graduate studies to train with excellent investigators in basic cancer-related research in tumor virology, chemical carcinogenesis, drug development, cancer cell biology, and tumor immunology. Training is available in recombinant DNA technology, gene expression, DNA replication, mutagenesis, molecular enzymology, regulation of cellular proliferation, growth factors, immunogenetics, protein phosphorylation, and combined programs. Unique training resources and core facilities housed in the new Lineberger Center. Candidates must be U.S. citizens or permanent residents. Send for brochure and apply with curriculum vitae, three letters of recommendation, a statement of research interests, and graduate school records to: **Director, Cancer Research Center, Lineberger Cancer Research Center 237H, Chapel Hill, N.C. 27514.** *UNC's Cancer Research Center is an Affirmative Action/Equal Opportunity Employer.*

FELLOWSHIPS

HERBERT H. JASPER POSTDOCTORAL RESEARCH FELLOWSHIP IN NEUROSCIENCE available. Position provides 1 year's salary and use of the exceptional facilities of the Center for Research in Neurological Sciences. Recipient works closely with investigator of choice, within a large group currently studying a wide range of topics in the vertebrate nervous system. Further information and application forms available from: **Fellowship Committee, Centre de recherche en sciences neurologiques, Faculté de médecine, Université de Montréal, C.P. 6128, Succ. A, Montréal, Québec, Canada H3C 3J7.** Deadline: 31 December 1985.

MARKEY FELLOWSHIPS MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

A recent grant from the Lucille P. Markey Trust enables the Mt. Desert Island Biological Laboratory (MDIBL) to offer research fellowships for summer 1986. Applications will be accepted from postdoctoral investigators in the biological/biomedical sciences who are in the early phase of their careers and have a record of productive, independent research. Fellowship recipients will receive laboratory space for all or part of the summer, plus housing and a supply allowance. The MDIBL is an independent research station which emphasizes the use of marine organisms as tools for basic biological research. Application forms and further information may be obtained by contacting: **Dr. David Wynes, Administrative Director, MDIBL, Salsbury Cove, Maine 04672.** Telephone: 207-288-3605. Deadline for receipt of completed applications is 1 December 1985.

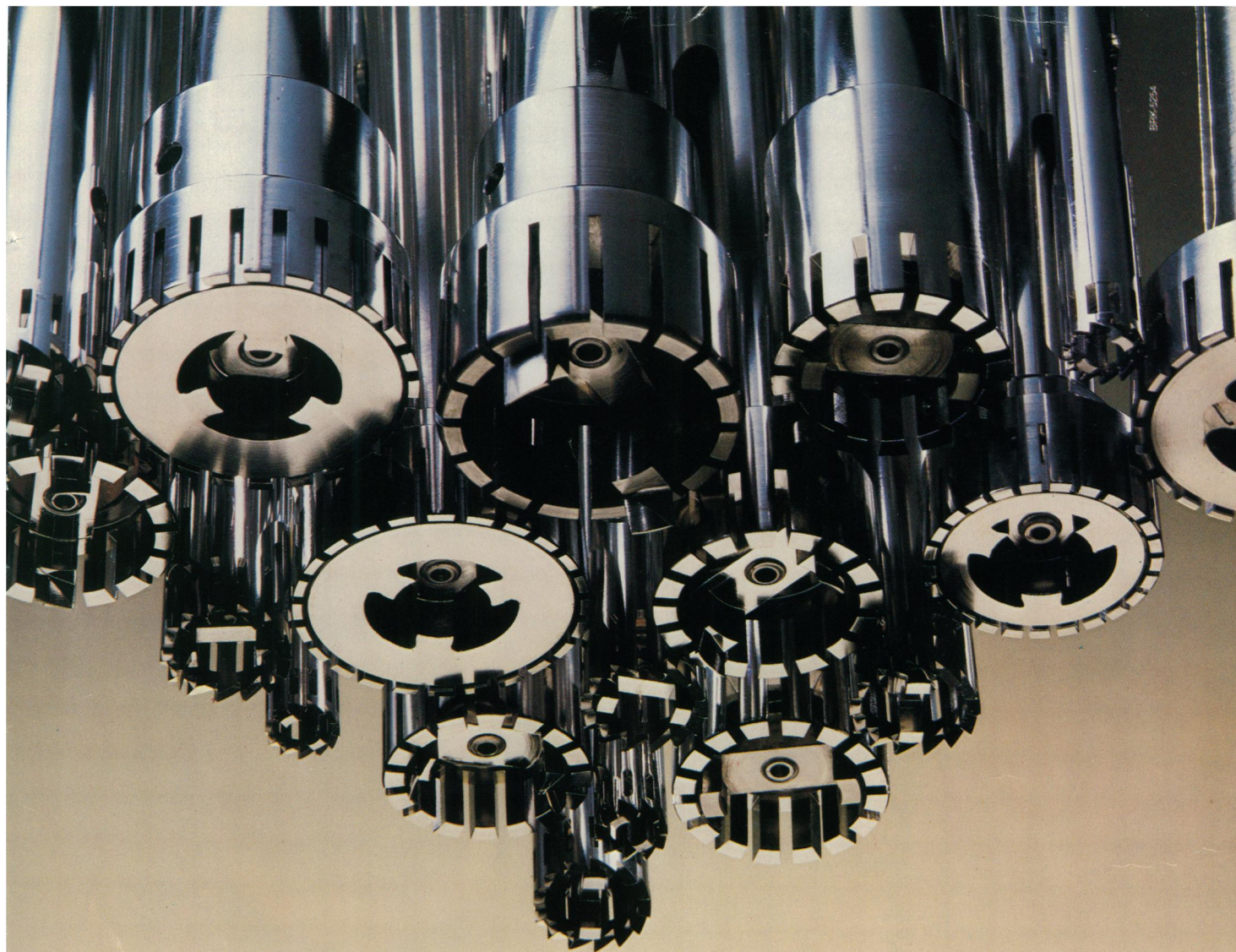
POSTDOCTORAL RESEARCH FELLOWSHIP is available to study the molecular biology of Na/K ATPase, particularly the genetic organization and hormonal regulation of Na/K ATPase genes. Candidates should have training in molecular biology, recombinant DNA methods, or cell biology. Send curriculum vitae and names of three or more references to: **Dr. I. S. Edelman, Department of Biochemistry and Molecular Biophysics, Columbia University, 630 West 168 Street, New York, N.Y. 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

GRADUATE TRAINING IN PHARMACOLOGY AND TOXICOLOGY. Research training and course work leading to the Ph.D. degree, realistically designed for career opportunities in these expanding fields. Major departmental research programs include: molecular; cellular; renal and nervous system (including behavioral) pharmacology; the toxicology of therapeutic and environmental agents, including drugs of abuse; clinical pharmacology. A limited number of fellowships offering tuition and stipend are available. Early application for September 1986 is advised. Apply to: **Director of Graduate Studies, Department of Pharmacology and Therapeutics, Medical School, State University of New York at Buffalo, 127 Farber Hall, Buffalo, N.Y. 14214.** *An Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO POSTDOCTORAL FELLOWSHIPS IN MOLECULAR GENETICS AND CELL BIOLOGY

Fellowships are available in a multidisciplinary research training program focusing on the molecular, cellular, genetic, and developmental aspects of cells responding to perturbations of their milieu. The faculty include M. J. Banda (angiogenesis, wound healing, macrophage proteinase), J. E. Cleaver (DNA repair genes), R. B. Painter (DNA replication and repair), R. Pedersen (early mammalian development), M. R. Wabl (molecular immunology), Z. Werb (macrophages, extracellular matrix degradation), and S. Wolff (radiation genetics, cytogenetics).

Stipends are funded through a training program in environmental mutagenesis and carcinogenesis sponsored by NIH. Appointments can begin immediately. The requirements are U.S. citizenship or permanent residency and a Ph.D. degree or equivalent; a significant background in molecular and cellular biology is desirable. Send résumé, graduate transcript, statement of research interests, and three letters of recommendation before 1 December 1985 to: **W. F. Morgan, Acting Program Director, Laboratory of Radiobiology and Environmental Health, LR-102, University of California, San Francisco, Calif. 94143.** *An Equal Opportunity/Affirmative Action Employer.*



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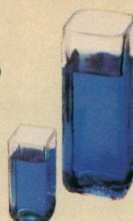
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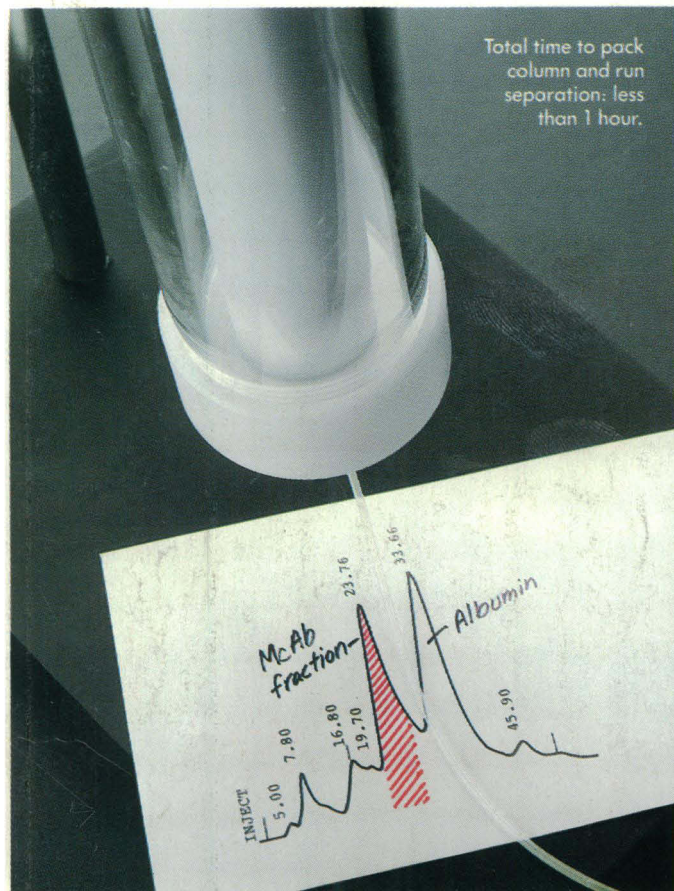
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