

Stopped-Flow Spectrofluorimeter

The DX.17MV BioSequential Stopped-Flow Spectrofluorimeter is designed for researchers in biochemistry and molecular biology. The DX.17MV features circular dichroism detection, fast time-resolved spectra (80,000 per second), zero-interrupt sequential mixing, and global multiparametric analysis. For protein folding and unfolding experiments, a ball mixer, low mass drive ram, and high sample flow rates can mix dense solutions like 6 to 8 M urea or guanidinium chloride with aqueous buffers. A unique sequential mixing capability can be used to study the initial phase of fast-folding proteins. Applied Photophysics. Circle 320.

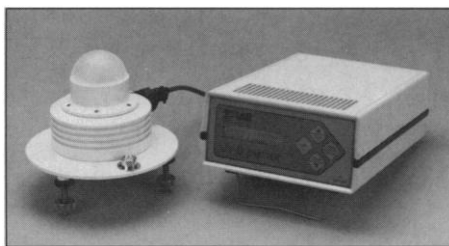
Self-Recirculating Electrophoresis System

In the Buffer Puffer Self-Recirculating Electrophoresis Chamber, hydrogen bubbles generated at the cathode are collected and shunted through an internal conduit to the other end of the buffer chamber. The flow of bubbles pumps and recirculates buffer within the chamber. Recirculating buffer within the chamber ensures uniform pH and ionic strength throughout the system without the use of bulky external pumps, tangled tubing, or stir bars. It is available in two sizes. Midwest Scientific. Circle 321.

Ultraviolet Radiation Meter

Model 501 UV-Biometer measures biologically effective ultraviolet radiation. The UV-Biometer measures ultraviolet radiation in minimum erythema dose per hour (MED/HR). Unlike radiometric (watts per unit area) measurements, MED/HR measurements are strongly correlated to solar radiation effects such as sunburn, skin aging, cataracts, skin cancer, DNA absorption, thymine and cysteine dimer formation, tryptophan absorption, phytoplankton mortality, and vitamin D production. The device is

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.



built for unattended outdoor use over extended periods, with rechargeable batteries that provide a minimum of 24 hours of backup in the event of a power outage. It is designed for use by meteorologists, plant physiologists, oceanographers, epidemiologists, ecosystem researchers, and others. Solar Light Co. Circle 322.

Monoclonal Antibodies

A murine monoclonal antibody (MAb) to the human progesterone receptor is available for immunohistochemical staining on frozen tissue and on paraffin wax embedded tissue. Caltag Laboratories. Circle 323.

A MAb to progesterone is available for immunoassay development and radioimmunoassay application to investigations from infertility studies to the diagnosis of congenital adrenal hyperplasia. Cymbus Bioscience. Circle 324.

A MAb to the β subunit of the Na^+/K^+ adenosine triphosphatase (ATPase) pump is available for enzyme studies by protein immunoblotting and for localization of the ATPase pump in cells and tissues by immunofluorescence staining. The MAb recognizes a glycoprotein in intact and sodium dodecyl sulfate-denatured protein samples from dog, rabbit, pig, lamb, and human cell homogenates. Cymbus Bioscience. Circle 325.

Water Dispenser Gun

A point-of-use dispenser gun for use with the line of compact Milli-Q Water Systems connects directly to the system's recirculation loop, which keeps the water in the tubing



and the system pure between uses. The device allows water to be dispensed simultaneously up to 7 feet from the system by the gun and from the three-way valve on the system. Millipore. Circle 326.

Direct Blotter

The TE 2000 TwoStep Direct Blotter allows gels to be run and blotted directly onto a nylon membrane that passes beneath the bottom edge of the gel. The device eliminates the tedious chores of handling and then blotting the thin sequencing gels. DNA sequences that are bound to the immobilizing membrane can be probed numerous times and developed with chemiluminescent or colorimetric detection systems, increasing the amount of information obtained from a single gel. A user programmable microprocessor controls the membrane speed. Hoefer Scientific Instruments. Circle 327.

Protein Structure Database

Iditis is an extended relational database of protein structures that incorporates three critical components of a successful protein structure database: a fully functional relational database management system, a comprehensive range of validated protein structure data, and a suite of protein structure analysis and reporting tools. Oxford Molecular. Circle 328.

Literature

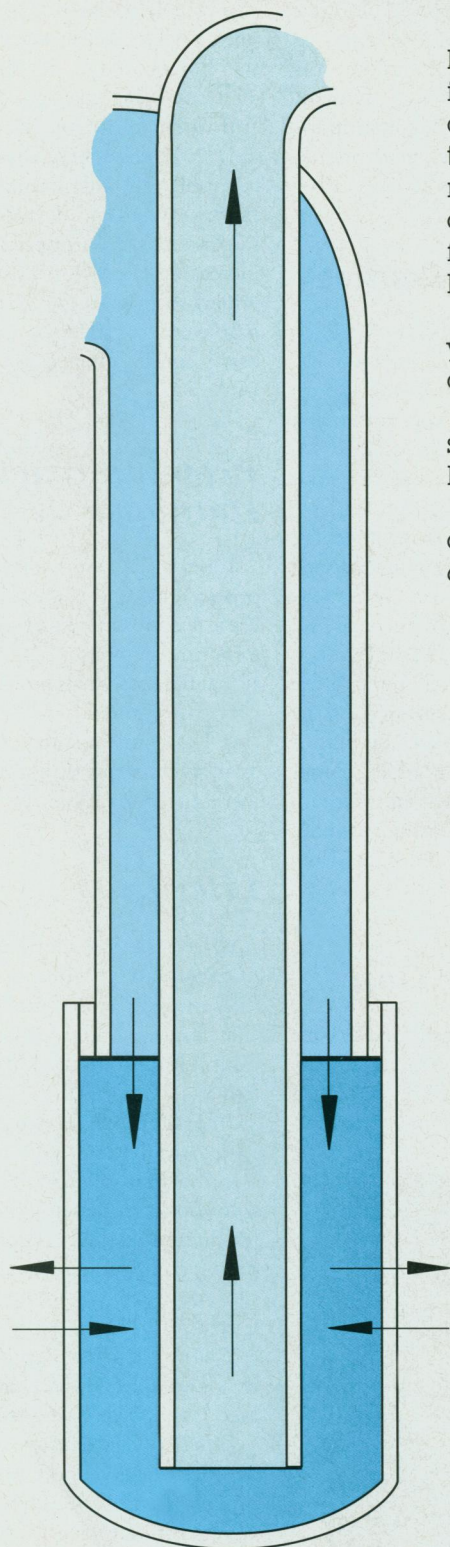
Gilson Liquid Chromatography Pumping Stations is a guide to components for a fully integrated isocratic system, for a flexible gradient delivery system, and for multipump systems. Gilson Medical Electronics. Circle 329.

How to Buy DNA Sequencing is an eight-page, step-by-step guide to help a user determine if contract sequencing is a practical solution to sequencing problems. Questions for defining project requirements and comparing contract sequencing vendors are presented. Lark Sequencing Technologies. Circle 330.

Titan Vacuum/Vapor Traps is a brochure on a line of mechanically refrigerated cold traps. FTS Systems. Circle 331.

Life Sciences Dialog is a free, semiannual newsletter with short articles on technical processes and procedures, applications for a variety of laboratory apparatus, and case studies. Labconco. Circle 332.

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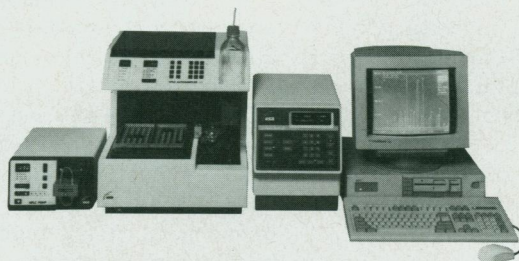


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POSITIONS OPEN

ANATOMIST. The Department of Anatomy, Chicago College of Osteopathic Medicine, invites applications for a tenure-track position at the rank of **ASSISTANT PROFESSOR**. Applicants must have a Ph.D. or equivalent, and a minimum of 2 years of postdoctoral experience. Teaching responsibility is primarily in neuroanatomy, but participation in gross anatomy and histology is also required. It is expected that the successful candidate will develop an independent research program capable of attracting extramural funding. Interested applicants should send their curriculum vitae, a statement of research interests and the names of three references to: **Teresa Dombrowski, Ph.D., Associate Professor, Department of Anatomy, Chicago College of Osteopathic Medicine, 555 31st Street, Downers Grove, IL 60515.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR ASSUMPTION COLLEGE

The Division of Natural Sciences of Assumption College invites applicants for a tenure-track position at the assistant professor level beginning in September 1992. Candidate must have a Ph.D. in biological science with emphasis in cellular/molecular biology and a strong commitment to undergraduate teaching. The teaching focus will be molecular genetics and cell biology and include biology for nonmajors. Applications, including curriculum vitae, undergraduate and graduate transcripts, and three letters of reference should be sent to: **Dr. Patricia S. Reiser, Biology Search Committee, Assumption College, 500 Salisbury Street, Worcester, MA 01615, by 31 January 1992.** Applications received after this date may receive consideration. There are no in-house applicants. Assumption College is a Catholic liberal arts college committed to excellence in undergraduate education. *An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position at Hamline University to teach cell biology, biochemistry, and (for majors and nonmajors) genetics. Applicants should have the Ph.D. and be strongly committed to undergraduate teaching and collaborative research. Send curriculum vitae, all transcripts, selected reprints, statement of teaching philosophy and research interests, examples of approaches to course laboratories, and three letters of reference to: **Dr. John Brennan, Biology Department, Hamline University, St. Paul, MN by 15 January 1992.** *An Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

ASSISTANT PROFESSOR, BIOLOGICAL SCIENCES. Tenure-track position, available fall 1992. Teach plant systematics and courses in field biology for majors and nonmajors, including a summer course at our Outdoor Education Center in the Adirondack Mountains. Ph.D. required. Applicant is expected to develop a research program involving undergraduates which complements current interests in our department. Submit curriculum vitae, transcripts of graduate work, three letters of reference, reprints of selected publications, and statements of teaching and research interests by 25 February 1992 to: **Dr. Timothy J. Baroni, Chair, Search Committee, Department of Biological Sciences, SUNY College at Cortland, P.O. Box 2000, Cortland, NY 13045.** *SUNY Cortland is an Equal Opportunity/Affirmative Action Employer.*

APPLIED AND ENVIRONMENTAL MICROBIOLOGIST. The Division of Biological Sciences at the University of Montana invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to start in August 1992. Teaching responsibilities include undergraduate courses in introductory microbiology and applied and environmental microbiology and a graduate course in microbial ecology. Productive research, aggressive pursuit of extramural support and supervision of M.S. and Ph.D. students in the areas of bioremediation, food, water, agricultural or industrial microbiology is expected. Ph.D. required, postdoctoral experience preferred, teaching experience desirable. Send curriculum vitae, statement of research goals, and three letters of reference to: **Applied and Environmental Search Committee, Division of Biological Sciences, University of Montana, Missoula, MT 59812.** Review of candidates begins 19 December 1991 and will continue until position is filled. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Chicago College of Osteopathic Medicine seeks an individual with a Ph.D. in biochemistry or a related field to fill a tenure-track position at the **ASSISTANT PROFESSOR** level.

The successful applicant will have a strong interest in and ability to teach biochemistry to medical students and to undergraduate students in pharmacy and other allied health fields. Postdoctoral research experience is not required, but preference will be given to applicants that can participate in departmental research programs involving amino acid transport and metabolism or early embryogenesis. Development of an independent research program in one of these or a related field is also expected.

Send curriculum vitae, names, addresses and telephone numbers of three references, and descriptions of research interests and teaching philosophy to:

**Dr. Lon J. Van Winkle
 Department of Biochemistry
 Chicago College of Osteopathic Medicine
 555 31st Street
 Downers Grove, IL 60515**

An Affirmative Action/Equal Opportunity Employer.

BIOCHEMISTRY/SPHINGOLIPID METABOLISM. Position available for postdoctoral fellow or non-tenure-track **ASSISTANT PROFESSOR** to study role of sphingolipids in regulating cell behavior. Appointment and salary depends on experience and qualifications. Experience in: lipid biochemistry, enzymology, cell culture, assays of leukocyte function, mechanisms of tumor promotion/carcinogenesis, nutrition and cancer, metabolism regulation and signal transduction. Submit curriculum vitae and three letters of reference to: **Dr. A. H. Merrill, Biochemistry, Rollins Research Center, Emory University, Atlanta, GA 30322.** Deadline: 1 March 1992. *Equal Opportunity Employer.*

ENTOMOLOGIST, ASSISTANT PROFESSOR. Twelve-month, tenure-track, 100% research position to develop and conduct applied and basic research in host-plant resistance in rice and forage crops. Successful candidate is expected to establish a strong field and laboratory program, direct graduate students, and cooperate with scientists at outlying research stations. A Ph.D. in entomology or related discipline is required with training in applied entomology, host-plant resistance and plant biochemistry desirable. Salary is commensurate with qualifications and experience. Send a letter of application, résumé, transcripts, list of publications (including select reprints) statement of research interests and career goals, and the names of four references to: **Dr. Thomas J. Riley, Chair, Search Committee, Department of Entomology, Louisiana State University, Baton Rouge, LA 70803.** Telephone: 504-388-1634. FAX: 504-388-1643. Deadline for receipt of application is 2 March 1992. *Affirmative Action/Equal Opportunity Employer.*

PSYCHONEUROIMMUNOLOGIST UNIVERSITY OF TEXAS MEDICAL BRANCH (UTMB)

The Department of Psychiatry and Behavioral Sciences is searching for candidates for a position at the **ASSISTANT PROFESSOR** level. We are looking for an independent scientist to collaborate with an established, multidisciplinary group in studying the interactions between the nervous and immune systems. The applicant should have a Ph.D., or equivalent degree with postdoctoral experience. Preference will be given to individuals with molecular biology experience and interests in neuroendocrinology, cytokines, neuroimmunology or behavioral disorders. Primarily, the candidate will be expected to carry on an active research program; but clinical participation, dependent upon the individual's qualifications and interests, may be possible. Women and minorities are encouraged to apply. Applicants should submit full curriculum vitae, research interests, three recent reprints, and the name of three references to:

**Dr. Eric M. Smith, Chairman
 Psychoneuroimmunologist Search Committee
 Department of Psychiatry and Behavioral Sciences
 University of Texas Medical Branch
 Galveston, TX 77550**

Equal Opportunity/Affirmative Action Employer, M/F/H/V. UTMB hires only individuals authorized to work in the United States.

POSITIONS OPEN

The Department of Biology, Villanova University, invites applications for **TWO TENURE-TRACK ASSISTANT PROFESSOR POSITIONS** to begin with the fall semester 1992. Successful applicants will teach and advise both undergraduate and graduate students and are expected to develop an active research program. Candidates with teaching and postdoctoral research experience are preferred.

QUANTITATIVE EVOLUTIONARY BIOLOGIST. This position is supported in part by the Undergraduate Biological Sciences Education Initiative of the Howard Hughes Medical Institute. We seek a broadly trained person who can assist in accomplishing the program's objective of improving quantitative skills of students in the life sciences. The successful candidate will participate in general biology and other courses such as genetics or evolution. Applicants' research interests should complement existing strengths in population genetics, evolutionary morphology, behavioral ecology, neuroethology and plant ecology.

ANIMAL PHYSIOLOGIST. We seek an organismal physiologist (broadly defined) to participate in the teaching of a two-semester human anatomy and physiology course and other courses in the applicant's specialty such as comparative physiology. The successful candidate's research interests will complement existing strengths in neurophysiology, endocrinology and cell biology.

Applicants should send a statement of teaching and research interests and goals, complete curriculum vitae including a list of publications, and transcripts of both undergraduate and graduate work. In addition, applicants should arrange to have three letters of recommendation sent. All materials should be addressed to either the **Quantitative Biologist or Physiologist Search Committee, Department of Biology, Villanova University, Villanova, PA 19085.** In order to assure consideration, an application must be complete by 15 January 1992. *Villanova University is an Augustinian-related Roman Catholic institution and is an Affirmative Action/Equal Opportunity Employer.*

DEPARTMENT OF BOTANY UNIVERSITY OF TORONTO ASSISTANT PROFESSOR IN APPLIED ECOLOGY

Applications are invited for a tenure-track position in applied ecology at the assistant professor level tenable from 1 July 1992. We are seeking applicants whose research interests are in one or more of the following areas: biodiversity and plant conservation, pollution ecology, renewable resources, vegetation and climate change or agricultural ecosystems.

The successful applicant will be expected to establish an active research program, demonstrate good teaching ability, which includes contributing to courses in terrestrial field biology, and to participate in developing interdisciplinary programs in teaching and research. Further information may be obtained from Ms. M. A. Schafer at the address/FAX given below. Curriculum vitae, a statement of research and teaching interests and three letters of recommendation should be received no later than 31 January 1992 by Dr. J. A. Hellebust, Chairman, Department of Botany, University of Toronto, 25 Willcocks Street, Toronto, Ontario, Canada M5S 3B2. Telephone: 416-978-3537; FAX: 416-978-5878.

The University of Toronto encourages both women and men to apply for this position. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada.

ASSOCIATE PROFESSOR

Nutrition reproductive/developmental biology. The Pennington Biomedical Research Center (PBRC) and the Department of Animal Science, Louisiana State University (LSU), seek a scientist with a background in transgenic animal technology, molecular biology, growth and early development or animal reproduction. This is a unique opportunity to develop and lead a research program in nutrition and reproductive or developmental biology. The Pennington Center is an ultra-modern, state-of-the-art laboratory and clinical research facility. Generous space and equipment package. Submit résumé and letter of application by 3 February 1992 to: Evelyn Bennett, Assistant Director, HRM, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808. Ref: "Biology". *LSU/PBRC is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

AUGUSTANA COLLEGE SOUTH DAKOTA ASSISTANT PROFESSOR BIOLOGY AND SCIENCE EDUCATION

Tenure-eligible position as assistant professor in the Department of Biology beginning September 1992. Ph.D. biologist with major professional commitment in science education to teach science methods for elementary teachers and secondary science teachers, team-teach course in biology for nonscience majors, prepare proposals for and be director of programs in science for in-service teachers. A commitment to excellence in teaching and professional growth and to the mission of a church-related liberal arts college is expected. The Department of Biology consists of eight full-time faculty. Send letter of application, curriculum vitae, graduate transcripts and three current letters of reference, and a statement of future goals to: Ms. Jeanne Kruse, Office of Academic Affairs, Augustana College, Sioux Falls, SD 57197. *Equal Employment Opportunity/Affirmative Action.*

DEPARTMENT OF BOTANY UNIVERSITY OF TORONTO ASSISTANT PROFESSOR IN PLANT ECOLOGY

Applications are invited for a tenure-track position in plant ecology at the assistant professor level tenable from 1 July 1992. We are seeking applicants whose research interests are in one or more of the following areas: theoretical and/or experimental community ecology, ecosystem processes, interactions between organisms or the physiological ecology of vascular plants.

The successful applicant will be expected to establish an active research program, demonstrate good teaching ability, which includes contributing to courses in terrestrial field biology, and to participate in developing interdisciplinary programs in teaching and research. Further information may be obtained from Ms. M. A. Schafer at the address/FAX given below. Curriculum vitae, a statement of research and teaching interests and three letters of recommendation should be received no later than 31 January 1992 by Dr. J. A. Hellebust, Chairman, Department of Botany, University of Toronto, 25 Willcocks Street, Toronto, Ontario, Canada M5S 3B2. Telephone: 416-978-3537; FAX: 416-978-5878.

The University of Toronto encourages both women and men to apply for this position.

ENVIRONMENTAL BIOLOGIST. Ph.D., ASSISTANT PROFESSOR, tenure track, September 1992. Contingent on state funding. Preference given to candidates with active, environmentally oriented research programs in either microbiology or vertebrate physiology. Teaching responsibilities: undergraduate courses, and participation in the graduate program. Send curriculum vitae, transcripts, research statement, and three letters of reference to: William Mechling, Biology Department, Towson State University, Towson, MD 21204. Applications by 15 February 1992. *Equal Opportunity Employer. Women and minorities are encouraged to apply.*

ASSISTANT/ASSOCIATE PROFESSOR

Applications are invited for a tenure-track assistant/associate professorship available immediately in the Division of Toxicology of the Department of Pharmacology and Toxicology, Indiana University School of Medicine. Applicants should possess a Ph.D. and have postdoctoral experience in either analytical chemistry, clinical chemistry, or forensic/clinical toxicology. While the primary responsibility of this position will involve the daily management of a clinical and forensic toxicology laboratory, the successful candidate will also be expected to share in the teaching of graduate and medical students, direct the future development and expansion of the forensic/clinical toxicology laboratory, and participate in the development of an extramurally funded research program in toxicology. Salary will be commensurate with experience. If interested, please send curriculum vitae to: James E. Klaunig, Ph.D., Professor and Director of Toxicology, Department of Pharmacology and Toxicology, Indiana University School of Medicine, 1001 Walnut Street, Indianapolis, IN 46202-5196. Applications should be received no later than 31 January 1992.

Indiana University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FOREST ECOLOGY AND FOREST HYDROLOGY/ WATERSHED MANAGEMENT

The Department of Forestry seeks applicants for two tenure-track faculty positions at the **ASSISTANT PROFESSOR** level. Our department covers of a broad range of topics related to forestry and natural resource management. We seek candidates for the following positions. Forest ecology: desirable strengths include, but are not limited to, a demonstrated interest and expertise in ecosystem processes and/or forest stand dynamics. Hydrology/watershed management: demonstrated interest and expertise in the interface between biotic and hydrologic processes; the successful candidate will be expected to contribute to analysis and continuance of a long-term hydrologic data set. For both positions, collaboration with other forestry and natural resource specialists is strongly encouraged, and initiation of a successful research program in area of expertise is expected. To apply, send curriculum vitae, transcripts, a statement of research interests, and three letters of recommendation by 10 January 1992 to: Dr. Robert N. Muller, Chairman, Department of Forestry, 205 T. P. Cooper Building, University of Kentucky, Lexington, KY 40546-0073. *The University of Kentucky is an Affirmative Action/Equal Opportunity Employer.*

LONGWOOD COLLEGE

CELLULAR/MOLECULAR GENETICIST. The Department of Natural Sciences, Longwood College, invites applications for a tenure-track **ASSISTANT PROFESSOR** position to commence August 1992. Ph.D. and teaching assistant experience preferred. Duties include a course in genetics for majors and in human genetics for nonmajors, together with a general education course. Possible to offer molecular biology and/or other specialty course. Some research opportunities available. Send letter of application, curriculum vitae, telephone numbers of three references, and other supportive materials to: Dr. M. W. Scott, Employee Relations Office, Longwood College, Farmville, VA 23901. Review of applications begins 15 January 1992, and continues until the position is filled. *Longwood College is an Affirmative Action, Equal Opportunity Employer, and seeks to assist its minority faculty with terminal degree requirements.*

MOLECULAR AND CELL BIOLOGY UNIVERSITY OF CALIFORNIA BERKELEY

The Department of Molecular and Cell Biology invites applications for the following tenure-track position, with appointment beginning 1 July 1992. Candidates should have demonstrated excellence, originality, and productivity in research and should have a strong interest in undergraduate and graduate teaching.

ASSISTANT PROFESSOR: research emphasizing the development of vertebrates, especially higher vertebrates, as approached through molecular, genetic, or embryological methods.

Applications should include a cover letter, curriculum vitae, a bibliography, a statement of research objectives and teaching interests, three letters of recommendation, and reprints of three representative publications. The closing date for acceptance of applications is 17 January 1992. Applications should be sent to: Genetics/Development Search Committee, Department of Molecular and Cell Biology, Room 597 Life Sciences Addition, University of California, Berkeley, CA 94720. Early applicants are encouraged.

The University of California is an Affirmative Action/Equal Opportunity Employer. We especially invite women and under-represented minorities to apply.

FACULTY POSITIONS IN DEVELOPMENTAL BIOLOGY AND EVOLUTIONARY BIOLOGY/ECOLOGY

The University of Houston is seeking to fill two tenure-track positions at the **ASSISTANT or ASSOCIATE PROFESSOR** level. Positions will be in Developmental biology and evolutionary biology/ecology with area of specialization open. Send curriculum vitae, statement of research interests, and three letters of recommendation to: Dr. Guy Cameron, Department of Biology, University of Houston, Houston, TX 77204-5513 by 31 January 1992. *The University of Houston is an Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Opportunities In Molecular Biology.

Excellent opportunities for training in molecular biology are now available with leading researchers at the National Institutes of Health.

Molecular Genetics of Tumor Suppression **W. Marston Linehan, MD**

The molecular genetics of tumor suppressor genes in genitourinary malignancy are under investigation in order to identify and clone the gene associated with sporadic and familial kidney cancer. In addition, the molecular genetic abnormalities associated with prostatic carcinoma are being characterized. Surgery Branch (OE-1), NCI, Building 10, Room 2B47.

Molecular Immunogenetics **Dinah Singer, PhD**

Molecular mechanisms which regulate the expression of genes of the major histocompatibility complex are being studied. Current efforts are focused on the DNA sequence elements and their specific binding factors which establish tissue specific levels of MHC gene expression. Additional studies are underway to analyze the hormonally determined levels of MHC expression as a means of investigating the molecular basis of autoimmune disease. Experimental Immunology Branch (OE-1), NCI, Building 10, Room 4B17.

Molecular Neurobiology **Andres Buonanno, PhD**

Transcription regulatory elements which modulate N-methyl-D-aspartate (NMDA) receptor gene expression during neural development, or in response to cellular interactions, will be studied. Functional properties of NMDA and non-NMDA receptors are determined following their expression in oocytes and transfected cells in conjunction with Dr. M. Mayer's laboratory. Repression by electrical current of the transcription of MyoD family genes during skeletal muscle innervation is also being studied. Laboratory of Developmental Neurobiology (OE-1), NICHD, Building 36, Room 2A-21.

Molecular Neurobiology **David Goldman, MD**

Tryptophan hydroxylase gene expression in mammals and its role in regulating serotonin production and various behaviors are being studied through the use

of modern molecular biology techniques. Background in molecular biology (gene expression, cloning, transfections, and transgenic animals) and biochemistry (enzyme assay and detection) is highly desirable. Laboratory of Neurogenetics (OE-1), NIAAA, ADAMHA, Building 31, Room 1B56.

Recombinant Toxins and Molecular Therapeutics **Ira Pastan, MD**

New recombinant toxins are being developed for the treatment of cancer and AIDS. Current studies focus on designing new recombinant toxins and determining how these toxic proteins act to kill their target cells. Applicants should have some experience in either molecular biology or protein chemistry. Laboratory of Molecular Biology (OE-1), NCI, Building 37, Room 4E16.

Transgene Expression **Heiner Westphal, MD**

Transgene expression in the developing mouse is currently being explored. Extensive experience in the development of transgenic animals, as well as experience in molecular cloning and basic molecular biology, is required. Applicant must be U.S. citizen or permanent resident. Laboratory of Mammalian Genes and Development (OE-1), NICHD, Building 6, Room 338.

Additional Postdoctoral Fellowship Opportunities

Those interested in learning about other postdoctoral opportunities may request a copy of the "Postdoctoral Research Fellowship Opportunities Catalog" by contacting the NIH Office of Education, Building 10, Room 1C129. Telephone 301-496-2427.

If you hold a PhD, MD or equivalent degree and would like to be considered for one of these positions, please send a cover letter, Curriculum Vitae, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



National Institutes Of Health

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Department of Health & Human Services • Public Health Service
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POSITIONS OPEN

TENURE-TRACK FACULTY POSITIONS DEPARTMENT OF ANATOMY AND CELL BIOLOGY

The Department of Anatomy and Cell Biology, Texas College of Osteopathic Medicine (TCOM), has openings for two (2) tenure-track faculty positions, one **ASSISTANT PROFESSOR** and one **ASSOCIATE PROFESSOR/PROFESSOR**. TCOM, located in the Dallas/Fort Worth Metroplex, is a state-supported medical college affiliated with the University of North Texas and is the cornerstone of a rapidly developing health sciences center.

Applicants for assistant professor must have a Ph.D. or equivalent degree, significant postdoctoral experience, and the potential to develop an extramurally funded research program in either ocular molecular biology or ocular cellular immunology. Preference will be given to individuals working in the area of retinal biology who can contribute to a growing multidisciplinary program in the visual sciences. Teaching responsibilities will be at the medical and graduate school level in cell biology and/or the anatomical sciences. Applicants for associate professor/professor must have a Ph.D. or equivalent degree and significant experience in teaching gross anatomy to medical students with an interest in directing the course. A funded research program complimentary to ongoing programs in ocular/retinal biology, cell and molecular biology, or the neurosciences is desired.

A competitive salary, generous start-up funds, modern laboratory space, and outstanding research support facilities are available. Review of applications will begin 1 March 1992. Qualified applicants should send curriculum vitae, list of publications, a description of current and future research directions, and the names, addresses and telephone numbers of three references to:

Dr. Edward L. Orr
Department of Anatomy and Cell Biology
Texas College of Osteopathic Medicine
3500 Camp Bowie Boulevard
Fort Worth, TX 76107-2690

TCOM is an Equal Opportunity/Affirmative Action Employer. Females, minorities, and persons with disabilities are encouraged to apply for any TCOM vacancy for which they are qualified.

PLANT SYSTEMATIST

The Department of Ecology and Evolutionary Biology at the University of Connecticut anticipates an opening for an **ASSISTANT PROFESSOR** in plant systematics. We invite applicants from any field of plant systematics, but we are particularly interested in those who use molecular analyses of the nuclear or chloroplast genome in their research. In addition to developing a vigorous research program, the successful candidate will be expected to teach a course in systematic botany and an appropriate graduate course, to participate in an introductory biology course, and to supervise a moderate-sized herbarium. Applicants should submit curriculum vitae, a statement of research interests, reprints of published papers, and at least three letters of reference to: **Dr. Kent E. Holsinger, Chair, Plant Systematist Search Committee, Department of Ecology and Evolutionary Biology, U-43, University of Connecticut, Storrs, CT 06269-3043**. Applications received before 27 January 1992 will be assured full consideration. *Affirmative Action/Equal Opportunity Employer. (Search #1A238).*

PENN STATE UNIVERSITY BIOLOGY DEPARTMENT PHYSIOLOGICAL ECOLOGISTS

We invite applications for tenure-track positions at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level starting fall 1992. New faculty are expected to establish a strong research program and have a commitment to excellence in undergraduate and graduate teaching. Although the area of specialization is open, candidates in chemical ecology, ecotoxicology, or plant-animal interactions are especially encouraged to apply. Send curriculum vitae, statements of research and teaching interests, and three letters of recommendation to: **Search Committee, 208 Mueller Laboratory, Box PE, Penn State University, University Park, PA 16802**. Review of applications will begin 8 January 1992 and continue until the position is filled. *An Affirmative Action/Equal Opportunity Employer, women and minorities are encouraged to apply.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR OF ANATOMY/HISTOLOGY

Applications are invited for tenure-track positions. The department is responsible for teaching histology and anatomy to dental and postgraduate students. Applicants must be prepared to teach both histology and gross anatomy. Research areas of particular interest include, but are not limited to, craniofacial development, and the molecular and cellular biology of the extracellular matrix. Preference will be given to candidates with demonstrated ability to obtain outside funding.

Applicants should submit a letter of application, curriculum vitae, statement of research interest, and the names/addresses of three references to: **Dr. Joel Rosenbloom, Chair, Department of Anatomy/Histology, University of Pennsylvania, School of Dental Medicine, 4001 Spruce Street, Philadelphia, PA 19104-6003**. *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Applications from minorities and women are particularly encouraged.*

TWO FACULTY POSITIONS

The Department of Biology of the State University College at Buffalo (SUCB) invites applications for two tenure-track positions to start September 1992. Applicants must have a Ph.D. and postdoctoral experience is preferred.

(1) **BOTANIST/PHYTOPLANKTON ECOLOGIST**. Teaching responsibilities will include general botany, a course for nonmajors and graduate/undergraduate courses in area of specialization. Successful applicant will be expected to establish a research program involving freshwater phytoplankton and to participate in research on Lake Erie through the department's Aquatic Biology Program which maintains a 42-foot research vessel and a newly renovated field station. While the department anticipates filling this position at the **ASSISTANT PROFESSOR** level, it may be filled at the **ASSOCIATE** or **PROFESSOR** level.

(2) **CELL BIOLOGIST/MOLECULAR GENETICIST**. Teaching responsibilities will include genetics, cell biology, a course for nonmajors, graduate/undergraduate courses in area of specialization and participation in a course in recombinant DNA technology. Successful applicant will be expected to develop a research program employing molecular techniques. This position will be filled at the **ASSISTANT PROFESSOR** level.

Submit curriculum vitae, statements of teaching philosophy and research interests and three letters of recommendation by 31 January 1992 to: **Dr. Eric Randall, Chairman, Department of Biology, State University College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222**. Both appointments will be made pending final budget approval. *SUCB is an Affirmative Action/Equal Opportunity Employer.*

HUMAN NUTRITIONISTS

The Department of Food Science and Human Nutrition at Iowa State University seeks **ASSISTANT** or **ASSOCIATE PROFESSORS** for two tenure-track positions in nutrition. The selected individuals are expected to participate in the undergraduate and graduate teaching programs of the department and to develop independent extramurally funded research programs that will complement the interdisciplinary program of the Center for Designing Foods to Improve Nutrition. The center houses a human metabolism laboratory as well as outstanding analytical and animal care facilities. Candidates should have expertise in experimental clinical nutrition or basic human nutritional sciences. Candidates should have the ability to interact effectively with other scientists in areas related to human nutrition. A Ph.D. in nutrition or related life science area or the M.D. is required. Teaching and postdoctoral research experiences are preferred. Initial funding is available, especially for those who use molecular or cellular approaches. *Iowa State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities and members of other protected groups are encouraged to apply.* Submit a letter of application, curriculum vitae, and names and addresses of at least three references to: **Dr. Murray L. Kaplan, Chair of the Search Committee and Interim Director, Center for Designing Foods to Improve Nutrition, Department of Food Science and Human Nutrition, 107 MacKay Hall, Iowa State University, Ames, IA 50011**. Deadline for application is 1 February 1992 or until position is filled.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, College of Medicine, University of Vermont, invites applications for a tenure-track position in pharmacology available 1 July 1992. Candidates should have a Ph.D. or M.D. degree and research experience that includes but is not limited to one or more of the following areas: cell growth, proliferation and differentiation; cell membrane receptors and transport proteins; signal transduction systems; mechanisms of cellular damage; whole animal techniques including neural control. Preferably candidates should be trained in molecular biology. The successful candidate would be expected to pursue research goals related to the vascular system and the drugs that act on it and carry out a vigorous independent research program. They would be able to interact with members of the interdisciplinary Vermont Center for Vascular Research. They must be committed to excellent teaching at the graduate and undergraduate levels. Applications should include curriculum vitae, descriptions of past, current and future research interests, names of three references to whom the committee may write, and three to five relevant publications and be sent to: **Search Committee, Department of Pharmacology, College of Medicine, University of Vermont, Burlington, VT 05405** by 31 January 1992.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic and cultural backgrounds are encouraged to apply.

STRUCTURAL BIOLOGY MOLECULAR BIOPHYSICS WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for two tenure-track **FACULTY POSITIONS** in the Department of Biochemistry and Molecular Biophysics at the level of **ASSISTANT PROFESSOR**, although candidates at the **ASSOCIATE** or **FULL PROFESSOR** level will also be considered for highly qualified individuals. Applicants must have a Ph.D. or equivalent degree and postdoctoral experience. We will consider individuals with demonstrated creativity and productivity and interests in: (1) macromolecular structural analysis by x-ray crystallographic methods, and (2) understanding fundamental biological processes at the molecular level, using biochemical and/or biophysical approaches. In addition to departmental affiliation, the positions include membership in the Division of Biological and Biomedical Sciences, which oversees a number of excellent multidisciplinary graduate programs. The Department of Biochemistry and Molecular Biophysics has recently added several faculty in the area of Molecular Biophysics with interests in the structure and functional energetics of proteins, nucleic acids and protein-nucleic acid systems. Interested candidates should send their curriculum vitae, a summary of research interests and future research plans and have three letters of reference sent by 31 December 1991 to: **Dr. Gary K. Ackers, Department of Biochemistry and Molecular Biophysics, 660 South Euclid Avenue, Box 8231, St. Louis, MO 63110**. *Washington University is an Equal Opportunity/Affirmative Action Employer.*

DERMATOLOGY FACULTY POSITION. Department of Dermatology at the University of Minnesota is seeking a faculty member. This position is available at the rank of tenure-track **ASSISTANT PROFESSOR** or tenured **ASSOCIATE PROFESSOR** depending on qualifications and experience. Responsibilities include research and supervision of the research laboratory, teaching medical students and residents, and participation in clinical activities. Qualifications include demonstrated involvement in skin-related research at cellular or molecular levels; effective teaching; evidence of writing in peer-reviewed journals; demonstrated interest in immunology of dermatology fungus infections. The successful candidate will be an M.D., Ph.D. with 2 to 6 years of professional experience. Salary and benefits are competitive. Application deadline: 31 December 1991. Position begins 1 July 1992. Send curriculum vitae or inquiries to: **Mark V. Dahl, M.D., Search Committee Chair, Department of Dermatology, University of Minnesota, Box 98 UMHC, 420 Delaware Street S.E., Minneapolis, MN 55455**.

The University of Minnesota is an Equal Opportunity Educator and Employer.

REQUEST FOR APPLICATIONS

New Therapies for the Treatment and Cure of Cystic Fibrosis

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), the National Heart, Lung and Blood Institute (NHLBI) and the Cystic Fibrosis Foundation (CFF) invite investigator-initiated research applications to develop and characterize new therapeutic approaches for the treatment and ultimate cure of cystic fibrosis (CF).

Research areas include but are not limited to:

- Development of viral and nonviral delivery systems to achieve gene therapy for CF;
- Identification of cell types that are appropriate targets for gene therapy;
- Characterization of the regulatory mechanism which confers stable and efficient gene transfer into CF cells;
- Evaluation of the safety issues associated with the development of gene therapy;
- Development of pharmacological interventions based upon knowledge of the basic defect and function of the CFTR protein;
- Development of therapeutic strategies involving CFTR protein.

Research approaches must be directly relevant to cystic fibrosis. Applications must be submitted to the NIH. **Proposals which are judged meritorious but are not funded by the NIH will be considered for support by the CFF.**

NIH support will be provided as grants-in-aid. CFF support is available for up to two years.

The deadline for letters of intent is Jan. 17, and for applications is Feb. 21, 1992. For the full text of the RFA, contact **Judith Fradkin, M.D.**, Chief, Endocrinology & Metabolic Diseases Branch, NIDDK, Westwood Bldg, Rm. 603, Bethesda, Md. 20892 or **Susan Banks-Schlegel, Ph.D.**, Director, Asthma and CF Program, NHLBI, Westwood Bldg, Rm. 6A15. For information about CFF award, contact **Robert J. Beall, Ph.D.**, CFF Executive Vice President for Medical Affairs, 6931 Arlington Road, Bethesda, Md. 20814.



Roche

Head of Department in Pharmaceutical Research—New Technologies

The Biology Department is one of four units within our Department New Technologies of Pharmaceutical Research. It is committed to maintaining and further developing key technologies of molecular biology and protein chemistry in order to provide effective and state-of-the-art methodological support to nonclinical R&D, and to engaging in molecular biological research in support of nonclinical R&D as well as independent research to uncover mechanistic principles and to identify novel targets for potential therapeutic intervention.

The successful candidate will possess an M.D. or a PhD in Chemistry or in a Life Science; have at least 12 years' professional experience in molecular biology, including a 4–5 years' experience as group or department head; have a strong background in key methodologies of molecular biology, with a record of internationally recognized achievements in the biosciences, notably in molecular biology; have an interest in interdisciplinary approaches to biological and therapeutic problems; be capable of motivating other scientists and provide strong scientific and organizational leadership. Experience in the pharmaceutical industry would be an advantage, but is not mandatory.

While you will be reporting to the Head of New Technologies, you are expected to interact closely with research units of biophysical and chemical disciplines in New Technologies as well as with interdisciplinary research units of the Preclinical Research Department of Pharmaceutical Research in Basel, with its main foci on Infectious Diseases, Cardiovascular Diseases, Diseases of the Central and Peripheral Nervous System, and Diseases of the Skin.

The salary is fully competitive with comprehensive benefits, including relocation assistance. Interested principals may direct their complete application documentation to our personnel department, quoting reference SCIENCE 109/91/Grä.

**F. Hoffmann-La Roche Ltd.,
CH-4002 Basel, Switzerland.**

We are an equal opportunity employer.

POSITIONS OPEN

DALHOUSIE UNIVERSITY DALHOUSIE MEDICAL RESEARCH FOUNDATION ASSOCIATESHIP

As part of a broad initiative to promote interdisciplinary medical research, the Faculty of Medicine is seeking an eminent scientist to assume an appointment at the level of **ASSOCIATE OR FULL PROFESSOR**, tenure track, to be made initially for 5 years through a Dalhousie Medical Research Foundation Associateship. This prestigious award will be made in one of the basic science (preclinical) or clinical departments in the Faculty of Medicine. To complement the strengths of existing faculty and to catalyze new interactions, we are seeking an investigator with a clear record of scientific leadership. The successful applicant is expected to hold a Ph.D., M.D., D.V.M. or equivalent, must be a proven independent researcher, with competence clearly demonstrated by publications, and a national and international reputation in one of the following priority research areas: cardiovascular, cancer cell biology, epidemiology, immunology and infectious diseases, neuroscience. The successful applicant is expected to develop a strong interdisciplinary group with external funding in one of the above areas. Applications consisting of curriculum vitae, a summary of research interests, and names of five individuals from whom letters of references may be obtained, should be sent to:

Dr. D. Howard Dickson
Scientific Officer

Dalhousie Medical Research Foundation
15th Floor Tupper Medical Building
Dalhousie University
Halifax, Nova Scotia B3H 4H7 Canada

Closing date for receipt of application is 28 February 1992. This appointment will be made on or after 1 January 1993. In accordance with Canadian Immigration Regulations, this advertisement is directed in the first instance to Canadian citizens and landed immigrants. Dalhousie University is an Employment Equity/Affirmative Action Employer. The university encourages applications from qualified women, aboriginal peoples, visible minorities and persons with disabilities.

University of London Department of Biochemistry and Biological Sciences Wye College AFRC Postdoctoral Research Associate in PLANT MOLECULAR BIOLOGY AND BIOCHEMISTRY (READVERTISEMENT)

Applications are invited for a Postdoctoral Associateship to undertake research directed toward isolating and characterising the structural components of K⁺ channels from plant membranes. The position is funded for three years on the RA1A scale (£11,969 to £19,073 per annum plus superannuation and national insurance contributions) by the British Agriculture and Food Research Council. The work will involve DNA isolation and sequence analysis, and/or protein purification. Some prior experience in these and related techniques will be an advantage. For further details, contact Dr. Charles Ainsworth or Michael R. Blatt [phone (0233) 812401 extensions 365 and 371; fax (0233) 813320]. There is no closing date; applications—to include a covering letter, curriculum vitae, list of publications and the names of three individuals from whom letters of reference may be sought—should be sent at the earliest possible convenience to Dr. Blatt, Department of Biochemistry and Biological Sciences, University of London, Wye College, Wye, Kent TN 25 5AH, England.

POSITIONS OPEN

MICROBIOLOGIST/IMMUNOLOGIST

The Department of Biological Sciences at the University of Alabama in Huntsville announces a tenure-earning faculty position in microbiology/immunology beginning in September 1992 contingent upon available funding. The position is for an **ASSISTANT** or **ASSOCIATE PROFESSOR** able to teach undergraduate and graduate courses in immunology and microbiology. The candidate will also be expected to establish a strong, independent research program and be able to attract extramural funding. A Ph.D. in microbiology/immunology is required. Postdoctoral experience is desirable. Salary is competitive, based on qualifications and experience. Send letter of application, curriculum vitae, and three letters of recommendation to: **Chairman, Microbiology Search Committee, Department of Biological Sciences, The University of Alabama in Huntsville, Huntsville, AL 35899**. Deadline for submission is 31 January 1992 or until a suitable candidate is found. *The University of Alabama in Huntsville is an Affirmative Action, Equal Opportunity Institution.*

Full-time, continuing, tenure-track position in Section of Pharmacology, Department of Biomedical Sciences, at rank of **ASSISTANT/ASSOCIATE PROFESSOR**. Individual filling this position will function as Section Head of Pharmacology. He/she is expected to assume complete responsibility for teaching dental pharmacology in the Biomedical Sciences Department composed of anatomy, biochemistry, microbiology, physiology and pharmacology sections. Research facilities are available and successful applicant will be expected to initiate and pursue research in accordance with the SIU-SDM Promotion and Tenure Document. Position available 1 April 1992. Applications accepted until 1 February 1992, or until position is filled. Send curriculum vitae to: **Dean Patrick J. Ferrillo, Jr., Southern Illinois University (SIU), School of Dental Medicine, 2800 College Avenue, Alton, IL 62002**. *As an Affirmative Action Employer, SIU offers Equal Employment Opportunity without regard to race, color, creed or religion, age, sex, national origin, or disability.*

FACULTY POSITIONS IN TRANSCRIPTIONAL REGULATION VASCULAR GENETICS UNIT AT VANDERBILT UNIVERSITY

ASSISTANT AND ASSOCIATE PROFESSOR positions are available in this tenure-track program for scientists with Ph.D. or M.D. degree. The candidate should have significant postdoctoral experience investigating regulation of eukaryotic gene transcription and be capable of directing an independent and innovative research effort. While the overall goal of this program is the investigation of vascular cell biology, the emphasis will be on fundamental mechanisms of transcription. Several faculty members will be recruited in this area, and will interact with cell biologists and developmental biologists to investigate basic questions relevant to vascular cells. Joint appointments in basic science departments in the Medical School will be encouraged. Faculty members will occupy new state-of-the-art research facilities, with access to a broad range of core facilities including a transgenic core. Interested candidates should submit curriculum vitae and a statement of interests to: **Thomas Quertermous, M.D., Chief, Division of Cardiology, Vanderbilt University School of Medicine, Nashville, TN 37232-2170**. *Vanderbilt University is an Equal Opportunity Employer.*

PRESIDENTIAL ENDOWED CHAIR IN IMMUNOLOGY

The University of Utah School of Medicine is seeking an internationally recognized investigator in a field of immunobiology related to transplantation. The successful applicant must be qualified for the rank of full professor, and must have demonstrated the ability to sustain independent funding. It is anticipated that this individual would provide scientific leadership to an already assembled group of investigators working in various aspects of immunology relevant to transplantation. Departmental affiliation and compensation are negotiable.

Letters of interest and curriculum vitae must be received no later than 31 December 1991. **Patrick G. Beatty, M.D. Ph.D., Chair, Search Committee, Division of Hematology/Oncology, University of Utah School of Medicine, 50 North Medical Drive, Salt Lake City, UT 84132**. FAX: 801-585-3432, Telephone: 801-585-3229.

POSITIONS OPEN

CHAIR

DEPARTMENT OF BIOCHEMISTRY CORNELL UNIVERSITY MEDICAL COLLEGE

Applications and nominations are invited for the position of Professor and Chair of the Department of Biochemistry to succeed Dr. Alton Meister. We seek a person (M.D. and/or Ph.D. or equivalent degree) who has been widely recognized for achievement in biochemistry and who has a significant interest in the education of medical and graduate students. The new chair will have the opportunity to recruit additional faculty and develop new programs. The department has an active Ph.D. program and there are opportunities for growth and new interactions.

Cornell University Medical College is part of The New York Hospital-Cornell Medical Center and is adjacent to the Hospital for Special Surgery, The Memorial Sloan Kettering Cancer Center and the Rockefeller University.

Applications should include a complete résumé and the names, addresses and telephone numbers of three or more references. Please send replies by 31 January 1992 to:

Dr. Kenneth I. Berns, Chair
Biochemistry Search Committee
Department of Microbiology
Cornell University Medical College
1300 York Avenue, New York, NY 10021

Cornell University Medical College is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

CHAIR DEPARTMENT OF BIOLOGY HOWARD UNIVERSITY

The search has been extended for the position of chairperson of the Department of Biology, which will be established upon the merger of the existing Departments of Botany and Zoology on 1 July 1992. The new department will have 30 faculty members, approximately 600 undergraduate majors, and 50 graduate students. Candidates should have a distinguished record of consistent research productivity and extramural support, a commitment to teaching, and a willingness to exercise innovative and resourceful leadership in building the department to a level of prominence. The area of concentration is open. Applicants should qualify for the rank of full professor. Salary is commensurate with qualifications and experience. Applicants should send, by 15 January 1992, curriculum vitae, names and addresses of three references, and a statement of educational and administrative philosophies to:

Dr. Mary McKenna, Chair
Biology Search Committee
Office of the Dean
College of Arts and Sciences
Locke Hall, Room 101
Howard University
Washington, DC 20059

Howard University is an Equal Opportunity Employer.

CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE

Philadelphia College of Osteopathic Medicine (PCOM) invites applications for the position of Professor and Chairperson of the Department of Biochemistry. Applicants should have a Ph.D., Ph.D./D.O., or equivalent degree(s); strong leadership ability to direct the educational and research programs of the department; and a proven record in biomedical research, teaching and administration. Broad opportunities exist at PCOM, which is a recognized leader in osteopathic education, research, and clinical practice.

Application review will begin 2 January 1992 and continue until a suitable candidate is found. Interested candidates should send their curriculum vitae and the names, addresses, and telephone numbers of three references to: **Susan P. Miska, Ph.D., Chair, Biochemistry Search Committee, Department of Physiology and Pharmacology, Philadelphia College of Osteopathic Medicine, 4150 City Avenue, Philadelphia, PA 19131-1696**.

PCOM is an Equal Opportunity Employer that offers a competitive salary and benefits package.

THE NETHERLANDS INSTITUTE OF ECOLOGY

On January 1st 1992 the Netherlands Institute of Ecology will be founded by the Royal Netherlands Academy of Arts and Sciences. The Institute will unite the following Academy Institutes: the Institute for Ecological Research at Heteren, the Delta Institute for Hydro-biological Research at Yerseke and the Limnological Institute at Nieuwersluis. These three former institutes will remain at their present locations. The preferred location for the Director will be at Nieuwersluis, 20 km. south of Amsterdam. The new institute will control a yearly budget of approximately 13 million guilders and employ about 200 personnel.

The Netherlands Institute of Ecology should achieve a leading position in fundamental and strategic ecological research, both nationally and internationally.

It is expected that the institutes, currently operating separately, will strengthen each other through cooperation and will expedite new ecological approaches. Further, a more appropriate use of their resources will be achieved.

The Institute seeks a

director

Netherlands Institute of Ecology (NIE)

Task: The NIE Director bears final responsibility for the operations conducted by the institute. The Director is expected to manage the institute's scientific policy. The primary task of the NIE Director, during the initial years is the amalgamation of the three existing institutes into a single scientific and organisational unit, and the realisation of any changes this may require. For the development and implementation of the new organisation, the Director will have appropriate internal and external management consultants at his disposal.

Profile: • reputed scientist within the area of fundamental ecological research, with a wide experience in directing research programmes
• proven management qualities • strong conceptual and strategic skills
• inspiring and communicative personality, matching creativity with patience and diplomacy • candidates should be prepared to learn the Dutch language within 2 years after being appointed.

Salary: the salary for this position has a maximum of 13.190 guilders gross per month.

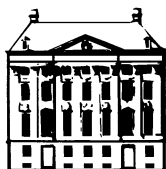
Location: preferably Nieuwersluis.

Information: further information can be obtained from the Chairman of the selection committee, Prof. J. Joosse (tel. 31 20 5482914, fax 31 20 6429202), or the Director of Administration of the Royal Netherlands Academy of Arts and Sciences, Dr. P. van 't Klooster (tel. 31 20 5510781, fax 31 20 6204941).

Written applications, including a curriculum vitae and a list of publications, should be sent within 4 weeks after the appearance of this advertisement to the Board of the Royal Netherlands Academy of Arts and Sciences, attn. Head of Personnel and Organisation, P.O. Box 19121, 1000 GC Amsterdam, The Netherlands.

The Academy is an equal opportunity employer.

Koninklijke
Nederlandse
Akademie
van
Wetenschappen



POSITIONS OPEN

APPLICATIONS AND NOMINATIONS ARE INVITED FOR

PROFESSOR and CHAIR DEPARTMENT OF PATHOLOGY CORNELL UNIVERSITY MEDICAL COLLEGE PATHOLOGIST-IN-CHIEF THE NEW YORK HOSPITAL

We seek an experienced, innovative physician-scientist who has made significant contributions in experimental medicine and pathology and who has a strong interest in the education of medical and graduate students. The new chair will have the opportunity to recruit faculty and develop new programs.

Applications should include a complete résumé and the names, addresses and telephone numbers of three or more references. Please send replies by 31 January 1992 to:

Dr. Ralph L. Nachman, Chairman
Pathology Chair Search Committee
Department of Medicine

The New York Hospital-Cornell Medical Center
525 East 68th Street, Room F-433
New York, NY 10021

The New York Hospital and Cornell University Medical College are Equal Opportunity/Affirmative Action Employers. Women and minorities are encouraged to apply.

CHAIRPERSON

Department of Physiology, School of Medicine, University of North Dakota. We invite applications from individuals holding a Ph.D. and/or M.D. degree with an outstanding record of extramurally funded research, a strong teaching record, and enthusiasm for medical student and graduate student education. We are seeking candidates from a wide spectrum of disciplines and research areas within physiology. In addition to several strong programs in cellular and molecular biology in the Medical School, opportunities exist for interactions with the USDA Human Nutrition Laboratory and with various aspects of aerospace sciences. The salary for the position will be competitive. Review of applications will begin 15 February 1992 and continue until the position is filled. Interested applicants should send curriculum vitae, a summary of research goals, and at least three letters of reference to: **Dr. Edward C. Carlson, Physiology Search Committee Chair, Department of Anatomy and Cell Biology, School of Medicine, University of North Dakota, Grand Forks, ND 58202.**

The university is an Equal Opportunity/Affirmative Action Employer.

NATIONAL INSTITUTES OF HEALTH (NIH) CHIEF DEVELOPMENTAL THERAPEUTICS BRANCH

The National Institute of Allergy and Infectious Diseases (NIAID) is seeking candidates for Chief, Developmental Therapeutics Branch, Division of Acquired Immunodeficiency Syndrome, Bethesda, Maryland. The chief is responsible for daily scientific management of an extramural basic research program that provides essential support for various aspects of the discovery and preclinical development of drugs as potential therapies against HIV, related retroviruses, and nonviral opportunistic infections associated with the acquired immunodeficiency syndrome (AIDS). In addition to working with academic and nonprofit research institutions, branch staff also assist biotechnology and pharmaceutical firms in the evaluation of therapeutic agents in cell culture and animal models through contract resources. Incumbent supervises a staff of fourteen professionals and non-professionals. Applicants should possess a Ph.D. or equivalent degree, and should have demonstrated ability to work with a variety of public and private organizations as well as staff and researchers from multiple disciplines. This is a GM-15 position with a salary range of \$61,643 to \$80,138 per annum. Applicants should send copies of curriculum vitae or Application for Federal Employment (SF-171) by 27 December 1991 to: **Dr. Margaret I. Johnston, Associate Director, Basic Research and Development Program, Division of Acquired Immunodeficiency Syndrome, 6003 Executive Boulevard, Room 2C07, Bethesda, MD 20892. Telephone: 301-496-0637; FAX: 301-480-5703.**

U.S. citizenship required. NIH is an Equal Opportunity Employer.

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA (UC) SANTA BARBARA DEAN SCHOOL OF ENVIRONMENTAL SCIENCE AND MANAGEMENT

Distinguished scholar sought, with accomplishment commensurate with appointment as full professor in the UC system. The Dean will play a leading role in the selection of the school's faculty and development of interdisciplinary, research-oriented curriculum which provides professional training in science and management.

The school's focus will be on diagnosis, management and resolution of environmental problems. The curriculum will serve students from a variety of backgrounds, and research will cross disciplinary boundaries. The program will offer a master's degree with an emphasis in either environmental science or management, with applied training in both. The Ph.D. program will provide three emphases: earth system studies, applied ecology, and environmental policy and management. The school will have a faculty of 15 FTE together with five joint appointments and appropriate support staff.

Confidential nominations and applications (current curriculum vitae, publications, and names of references) should be submitted to:

**Search Committee for the Dean of the
School of Environmental Science and Management
Office of Academic Personnel, Cheadle Hall 5109
University of California, Santa Barbara
Santa Barbara, CA 93106-2030**

Please submit prior to 1 January 1992.

The University of California, Santa Barbara, is an Equal Opportunity/Affirmative Action Employer. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (IRCA 1986).

DIRECTOR OF TECHNOLOGY TRANSFER

The University of Utah seeks a new Director for the Office of Technology Transfer. The primary responsibilities of this position are to: (1) manage the intellectual property arising at the University of Utah, (2) administer the university's Technology Transfer Office and personnel, and (3) interact with state and local community officials on economic development issues.

The candidate for this position should have a broad-based background in technology/legal/business, with demonstrated effectiveness in planning, controlling, organizing, staffing, budgeting, and marketing. Experience in technology evaluation, patentability analysis, business plan formulation and review, and technology license negotiations is required. Interpersonal skills to be able to work with faculty inventors and independent counsel as well as staff and business executives is important. A working knowledge of patent law, contract law, licensing law, federal law governing funded research results, transfer of technology in a University setting, general accounting and business skills is expected.

The University of Utah is an Equal Opportunity and Affirmative Action Employer. Nominations and applications from women and minorities are encouraged.

Please submit letters of application and supporting letters of reference to:

**Dr. Kent Smith
Chair, Search Committee
3148 Merrill Engineering Building
University of Utah
Salt Lake City, UT 84112**

Screening of applications will begin 1 January 1992 and will continue until the position is filled.

CONSERVATION

The Nature Conservancy, one of the nation's leading organizations dedicated to protecting endangered species and natural areas, seeks a **DIRECTOR OF SCIENCE DEVELOPMENT** (based in Arlington, Virginia, to oversee all aspects of private fund raising for its Science Division).

This position requires a minimum of 3 to 5 years' senior-level fund raising and capital campaign experience. In addition, a commitment to conservation, excellent management and communications skills, creativity, and flexibility to handle varied tasks and to work with a variety of people are essential.

To apply, send your résumé and cover letter indicating salary requirements to: **Paul Martin, The Nature Conservancy, Department DWS, 1815 North Lynn Street, Arlington, VA 22209. Equal Opportunity Employer.**

POSITIONS OPEN



THE ENVIRONMENTAL FATE AND EFFECTS DIVISION OFFICE OF PESTICIDE PROGRAMS U.S. ENVIRONMENTAL PROTECTION AGENCY

is seeking applications for an immediate opening for the position of **BRANCH CHIEF** of the Ecological Effects Branch. We are seeking a strong manager and an individual who is recognized as an expert in the areas of fisheries and wildlife biology, to lead, develop, oversee and act as a spokesperson for the scientific and regulatory policy work in the areas of ecological risk assessment and related areas. Additionally, the candidate should possess excellent writing and verbal communication skills. The individual should qualify for a biologist (Series 401) and have some background or experience in fisheries or wildlife biology or both. The position is at the GM-15 level (salary range: \$61,643 to \$80,138). Please send a completed, recent SF-171 (Application for Federal Employment) and a list of college courses to: **Ms. Rachel Jones, Environmental Fate and Effects Division (H7507C) (Telephone: 703-305-6469), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460.** All applications should be postmarked no later than 15 February 1992. *U.S. EPA is an Equal Opportunity Employer.*

COORDINATOR

WATER QUALITY INFORMATION CENTER

The National Agricultural Library, an agency of the U.S. Department of Agriculture, invites applications for the position of **TECHNICAL INFORMATION SPECIALIST** (biological sciences) to serve as coordinator of the Water Quality Information Center. The coordinator is responsible for the activities of the center, which include developing innovative programs of information dissemination, developing information networks, providing reference services, collection development, and preparing information products in print and nonprint formats. The ideal candidate will have strong academic preparation and/or experience in disciplines related to water quality issues as well as skills relevant to information professionals.

This is a federal position at the GS-12 level. Required application forms and the vacancy announcement (**ARS-H22-006**), which provides details of the position and specific directions for applying, may be requested from **Lynn Parks (telephone: 301-344-0117)**. Deadline for receipt of completed applications is 23 December 1991. Specific questions about the position can be directed to **Leslie Kulp at NAL (telephone: 301-344-3875; after 16 December 1991, 301-504-6875)**. *The National Agricultural Library is an Equal Opportunity Employer.*

CALIFORNIA INSTITUTE OF TECHNOLOGY

Applications are being accepted for a **TENURE-TRACK FACULTY** position in geochemistry or cosmochemistry in the Division of Geological and Planetary Sciences. This is the continuation and revitalization of a search begun several years ago. Both junior and senior academic levels will be considered. Outstanding individuals with a strong commitment to original research and teaching in a field relating to isotopic and chemical effects in the evolution and structure of the earth, the terrestrial planets and planet-forming materials are encouraged to apply. It is expected that this faculty member would carry forward innovative research approaches involving existing or new techniques, and possesses a deep knowledge of modern laboratory techniques and an ability to do theoretical and experimental studies based on sound geologic knowledge. Strong interactions with research programs covering the full spectrum of the earth and planetary sciences are encouraged. We are interested in candidates from diverse backgrounds, including areas of expertise not currently or previously represented in the division faculty. Curriculum vitae including a list of publications and a brief description of proposed research activities should be sent to: **D. J. Stevenson, Chairman, Division of Geological and Planetary Sciences, 170-25, California Institute of Technology, Pasadena, CA 91125.**

The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority candidates are encouraged to apply.

Research Opportunities

Drug Metabolism/Pharmacokinetics

The continued expansion of our Central Research facilities at Groton, Connecticut has created a need for qualified PhD and BS/MS research scientists in our Drug Metabolism Department.

We are seeking PhDs with relevant experience in the areas of pharmacokinetics and drug metabolism. You will interact in a project area with a multidisciplinary team including chemists, biologists and clinicians where pharmacokinetics and drug metabolism input is essential to the discovery and development of new drugs. Will work with some of the most advanced equipment and support systems available. Publication of original research encouraged. A PhD or the equivalent in Pharmacology, Pharmacokinetics, Biochemistry, Pharmaceutical Chemistry or related discipline is required. Postdoctoral training or employment including practical experience with bioanalytical methods and biotransformation of drugs is highly desirable. Must be creative and possess superior interpersonal and communication skills.

If you have a BS or MS, you will be responsible for the development and utilization of analytical chromatographic and RIA methods for monitoring drugs and metabolites in biological samples; isolation and identification of metabolites utilizing instrumental methods; collection of biological samples, and use of *in vivo* and *in vitro* techniques; utilization of electronic data systems for acquiring and processing data. You should possess a BS or MS degree or the equivalent in Chemistry, Biochemistry, or the biological sciences and have an interest in the analysis, disposition, and metabolism of drugs.

These positions offer a superb professional environment in an attractive southeastern Connecticut shore area, complemented by a competitive salary/benefit/relocation package. Please send resume and description of research interests to: Lorraine C. Corr, Supervisor Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



Bringing science to life.

PROFESSOR AND CHAIRPERSON DEPARTMENT OF MICROBIOLOGY

BOSTON UNIVERSITY SCHOOL OF MEDICINE

The Boston University School of Medicine invites applications for the position of Chair, Department of Microbiology. The candidate should hold an MD, or PhD, and have an established record of creative research, a commitment to Medical and Graduate School education, and proven leadership and administrative abilities. Particular consideration will be given to applicants having research interests related to AIDS, but strong applicants from other fields will be considered.

The deadline for receipt of applications is February 1, 1992. Send curriculum vitae and list of references to: Michael F. Holick, PhD MD, Microbiology Search Committee, Boston University School of Medicine, 80 E. Concord Street, M-1013, Boston, MA 02118.

**Boston University is an Affirmative
Action and Equal Opportunity Employer**

MOLECULAR GENETICIST

POST-DOCTORAL POSITION

National Institute of Diabetes and Digestive and Kidney Diseases Phoenix, Arizona

Full-time post-doctoral research position for an M.D. or Ph.D. (preferably with some years of relevant experience) at the Clinical Diabetes and Nutrition Section. The project involves genetic analyses of obesity related phenotypes in the Pima Indian population.

The candidate is expected to work independently, as well as in close collaboration with other investigators studying the genetics of non-insulin dependent diabetes.

Send curriculum vitae, three letters of reference, and a summary of current research activity to:

**Eric Ravussin, Ph.D.
Clinical Diabetes and
Nutrition Section
National Institutes of Health
4212 North 16th Street, Room 541
Phoenix, Arizona 85016**



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Peak Performance: It's not just in our products, it's in our people.

In the highly competitive healthcare products industry, success can only be achieved when top performers use the latest technologies to achieve breakthrough results. That's the kind of dynamic environment you'll find at Kendall Healthcare Products Company. We're developing new standards of product excellence through the motivated performance of every member of our team. If you're looking for an environment that encourages and rewards peak performance, you'll find it at Kendall.

SENIOR SCIENTIST

In this highly visible position you will act as our expert internal and external consultant, defining and executing programs in venous diseases and Hemodynamics physiology. You will also be responsible for translating

the results of these experimental programs to meet business and new product design objectives. 5-10 years of experience in a Cardiovascular area, preferably in the study of venous diseases, and a PhD in Biomedical Engineering or Physiology required. A Master's combined with substantial experience in the area of venous diseases will be considered. Solid communication and presentation skills are essential.

We offer a competitive salary, an excellent benefits package including medical/dental insurance, a matching savings investment plan, pension, and tuition reimbursement, as well as exceptional growth opportunities. Qualified candidates should forward their resume to Bob Simons, The Kendall Healthcare Products Company, 15 Hampshire Street, Mansfield, MA 02048. An equal opportunity employer.

KENDALL

Where results get rewarded.

HUMAN GENETICIST

Molecular Genetics of Disease and Genome Technology
Assistant, Associate or Full Professor

Roswell Park Cancer Institute seeks applicants who have demonstrated research and funding excellence in human molecular genetics. This tenure-track position requires establishing a vigorous, independent, grant-supported research program; directing graduate research; and participating in teaching graduate courses in the applicant's area of interest. Preference will be given to those involved in the molecular characterization of human inherited diseases, including cancer, and the development of human genome technology. Active participation in program projects focusing on the molecular genetics of disease and genome mapping will be encouraged. Academic appointments will be in the Roswell Park Division, State University of New York at Buffalo. Competitive rank, salary, start-up funds and space will be commensurate with qualifications. Salary will be provided in full by the State of New York.

Roswell Park is a National Cancer Institute-designated comprehensive cancer center. The successful applicant will join a dynamic faculty that has recently begun a significant expansion at both the research and clinical level. The Department of Human Genetics is an active research department with extensive interactions with researchers in other departments with modern molecular biology programs. There are excellent opportunities for collaboration with the clinical departments at Roswell Park and with researchers and clinicians at the State University of New York at Buffalo. Buffalo, a Western New York city between Lakes Erie and Ontario, has the cultural amenities of a large city within minutes of a rural setting.

Please send curriculum vita, a brief description of research interests and three references to: Thomas B. Shows, Ph.D., Chairman, Department of Human Genetics, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, New York 14263.



An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

DIRECTOR OF RESEARCH

The Portland Veterans Affairs Medical Center (PVAMC) and the Oregon Health Sciences University (OHSU) seek an accomplished biomedical scientist with M.D. or Ph.D. degree for the position of Associate Chief of Staff for Research at the PVAMC. He/she will be responsible for administering the PVAMC research program, coordinating the relationship between research at the PVAMC and OHSU, and representing the PVAMC's research program to VA central office. This position will have significant program and faculty development responsibilities. The successful candidate will be expected to continue his/her own research program. The individual should have the qualifications for appointment as an associate or full professor in the appropriate department in the School of Medicine. Send curriculum vitae, including bibliography and the names of at least three references, by 30 January 1992, to: Michael Davey, M.D., Chair, Search Committee, Research Service (151), VA Medical Center, P.O. Box 1034, Portland, OR 97207. An Equal Opportunity Employer.



UNIVERSITY OF MANITOBA DEPARTMENT OF PHYSIOLOGY PROFESSOR AND HEAD

Applications are invited for the position of Head of the Department of Physiology at the Faculty of Medicine, University of Manitoba, for a 5-year term commencing 1 July 1992, or as soon thereafter as possible. This position comes with a tenure-track appointment. Candidates should have a substantial record of academic achievement in physiology as well as proven administrative experience. The department is responsible for programs of education at the undergraduate and graduate levels. Salary and academic rank will be commensurate with qualifications and experience. *The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal people, and persons with disabilities. The University provides a smoke-free environment, save for specially designated areas. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens or permanent residents.* Interested candidates should apply, enclosing curriculum vitae, in writing to: Dr. N. R. Anthonisen, Chair, Department of Physiology Search Committee, Dean, Faculty of Medicine, University of Manitoba, 753 McDermot Avenue, Winnipeg, MB, Canada, R3E 0W3. Closing date: when position is filled.

MANAGER, SCIENTIFIC PUBLICATIONS

Prestigious horticultural, education and scientific institution seeks dynamic individual to manage its Scientific Publications Department. Will design and implement marketing and promotional campaigns, serve as managing editor and oversee operation of the department. Broad experience in scholarly publishing, administrative, supervisory and budgeting skills, and B.A. required. Knowledge of fulfillment software, WordPerfect, Lotus, DOS and electronic publishing desired. Salary commensurate with experience, excellent benefits including 4 weeks of vacation. Send résumé to: Personnel Director-S, The New York Botanical Garden, 200th Street and Southern Boulevard, Bronx, NY 10458. Equal Opportunity/Affirmative Action Employer, M/F.

DARTMOUTH COLLEGE ENVIRONMENTAL STUDIES PROGRAM SENIOR FACULTY APPOINTMENT

Dartmouth College is seeking a Chair for the Environmental Studies Program. The appointment will be at the ASSOCIATE OR FULL PROFESSOR level, depending upon the qualifications of the candidate. Anticipated start date is September 1992. Responsibilities as chair do not necessarily have to be assumed immediately.

Candidates must have an outstanding scholarly record, with an active research program in some field of natural science and evidence of interest in the broader societal or policy implications of environmental matters. In addition, candidates must be able to direct and participate in a broadly based interdisciplinary teaching and research program.

Applications should be sent to: Chair, Environmental Studies Search Committee, Dartmouth College, 337 Murdough Center, Hanover, NH 03755. The search committee will begin to read applications on 2 January 1992.

Dartmouth College is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 254

POSITIONS OPEN

LECTURER DEPARTMENT OF ANATOMY

Teaching: The department provides courses for students in the Faculties of Medicine, Science, Dentistry and Veterinary Science and for students of Human Movement. The appointee will contribute to the teaching of gross anatomy to medical and dental students and to science and medical students in the subjects of histology, embryology or cell biology.

Qualifications: Applicants should hold appropriate tertiary qualifications in a branch of science relevant to the broad field of anatomy.

Research: The appointee must actively participate in research either by establishing a laboratory, or by joining one of the research groups in the department. Current research in the department is in four main fields: human cardiovascular disease, reproductive biology; neurobiology and movement studies.

Research facilities of the department include well-equipped laboratories in histology and histochemistry, electron microscopy, image-analysis, cell culture, biochemistry, molecular biology, neurophysiology and human growth and movement studies. In 1992 some department funds will be available for the applicant to start a research program. After 1992 the major funding of the appointee's research must be obtained from other sources such as the NH&MRC and ARC.

For further information contact the head of the department, Professor Gordon R. Campbell; Telephone: +61 7 365-2722. FAX: +61 7 365-1299.

Appointment: This position is tenurable. The successful applicant will be required to take up duty as soon as possible. The salary range for a lecturer is \$40,000 to \$47,150 per annum (to \$48,688 per annum from 29 July 1992).

Closing date: 29 January 1992. Applications quoting Reference No. 46591 must be forwarded to: The Director, Personnel Services, The University of Queensland, Qld 4072, Australia.

Equal opportunity in employment is university policy.

PENN STATE UNIVERSITY BIOLOGY DEPARTMENT SIGNAL TRANSDUCTION IN PLANTS

We invite applications for a tenure-track **FACULTY POSITION** in the area of plant signal transduction, starting fall 1992. Researchers studying second messengers, mutants in signaling pathways, or reception of and response to environmental stimuli are especially encouraged to apply. The appointee is expected to establish a strong research program and have a commitment to excellence in undergraduate and graduate teaching. Postdoctoral experience is required. Submit curriculum vitae, statement of research and teaching interests, and three letters of support to: Search Committee, 208 Mueller Laboratory, Box ST, Penn State University, University Park, PA 16802. Review of applications will begin 8 January 1991 and continue until the position is filled. *An Affirmative Action/Equal Opportunity Employer, women and minorities are encouraged to apply.*

FACULTY POSITION IN BIOCHEMISTRY

Applications and nominations are invited for a tenure-track faculty position in the Department of Biochemistry, Purdue University. Preference will be given to individuals whose research emphasizes molecular biological approaches which could be applied to the plant sciences or related fields of study. Candidates must have postdoctoral training, a strong research record, and be capable of developing and continuing a vigorous research program.

The individual selected for this position will participate in the instructional program of the department which encompasses undergraduate, graduate, and medical curricula.

Curriculum vitae, names and addresses of three individuals who can supply letters of reference, and a two-page summary of research interests are required for an application. The screening of applications will commence upon receipt of applications and continue until the position is filled.

Search Committee
Purdue University
Department of Biochemistry
1153 Biochemistry Building
West Lafayette, IN 47907-1153

Purdue University is an Affirmative Action/Equal Opportunity Employer.

6 DECEMBER 1991

Wyeth-Ayerst Research Opportunities in Drug Metabolism

Wyeth-Ayerst Laboratories, a major division of Fortune 100 American Home Products Corporation, has the following opportunities available for professionals with a background in Drug Metabolism at their modern research facility in Princeton, New Jersey.

RESEARCH SCIENTIST/PhD

Responsible for the development of preclinical pharmacokinetic/pharmacodynamic (PK/PD) programs in support of disposition studies of new drug candidates. Experience in the design and interpretation of PK/PD studies including a thorough understanding of computer programs utilized in PK/PD modeling is necessary. Candidates should have a PhD in Pharmacokinetics, Biopharmaceutics or a related discipline and 3-5 years relevant experience. (Position #427)

SENIOR SCIENTIST/PhD

Responsible for conducting studies to evaluate the metabolic disposition of new drug candidates in biological samples. This will include the development of analytical methodology for the quantitation of drugs and metabolites in biological matrices. PhD in Chemistry, Biochemistry, Pharmacology or related Biological discipline and 0-3 years experience in HPLC and performing extractions of biological samples. Computer skills and GC/MS expertise a plus. (Position #431/2)

ASSOCIATE CHEMIST/BS/MS

Support drug disposition group in the assessment of the metabolic disposition of drug candidates. BS/MS in Chemistry or Biochemistry and 1-3 years experience including HPLC. Requires use of radioactive compounds. (Position #433)

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Our research laboratory is just minutes away from Princeton University and is convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Personnel Manager, (Reference Position #), CN 8000, Princeton, NJ 08543-8000.** An equal opportunity employer, M/F/D/V responses encouraged. Principals only.

**WYETH
AYERST**

Leading The Way For A Healthier World.

Enzytech, Inc. of Cambridge is a rapidly growing biotechnology company engaged in the development of controlled release systems for therapeutic proteins. We are currently seeking Research Scientists in the following areas:

Research Scientist Protein Biochemistry

To participate in ongoing programs for formulating and characterizing the stability of proteins in polymeric matrices. Experience with protein formulation including stabilization methods and a strong background in analytical methods are desirable. Strong team and communication skills are necessary. The candidate should have a Ph.D. in biochemistry or related field (0-3 years' experience).

Research Scientist Polymer Characterization

To participate in ongoing programs for designing polymeric systems for controlled release systems. A strong background in polymer characterization methods is necessary. Experience with biocompatible polymers and polymer synthesis is a plus. The candidate should have a Ph.D. in chemical engineering or material science or polymer chemistry (0-3 years' experience).

Research Scientist Drug Delivery

To conduct research and development studies on both parenteral and alternate delivery systems. A strong background in the drug delivery of proteins or peptides from polymer matrices is required. Experience with analytical techniques is a plus. The candidate should have a Ph.D. in chemical engineering or physical chemistry or pharmaceuticals (0-3 years' experience).

Research Scientist Pharmacology/Biological Sciences

To be responsible for conducting physical and biological evaluations of alternate delivery systems for proteins. This will involve mechanistic studies of protein transport and proteolytic degradation in biological systems. Experience with drug absorption, distribution and metabolism as well as a familiarity with analytical techniques are desirable. A Ph.D. in pharmacology, pharmaceuticals or pharmacokinetics is required (0-2 years' experience).

We provide an attractive, comprehensive compensation and benefits package as well as excellent advancement opportunities. For immediate consideration, please send a CV, in confidence, to:

**Enzytech Inc., Human Resources Dept.,
64 Sidney Street, Cambridge, MA 02139.**
An Equal Opportunity Employer.

Enzytech

POSITIONS OPEN

The Illinois College of Optometry in Chicago seeks an individual (no later than 1992-93 academic year) to **TEACH BIOCHEMISTRY** to students in the first year of the optometry program and to fill supervisory role for team which teaches ocular vegetative physiology. Candidates must possess Ph.D. or D.Sc. in biochemistry, immunology or physiology and will be expected to develop a research program centered on human subjects in one of the following areas: clinical trials; general physiology; the physiology of stress; or vegetative ocular physiology. The candidate will be expected to serve as a mentor for (selected) junior clinical faculty who wish to develop their research skills. Salary competitive, benefits excellent, rank commensurate with experience. Please submit detailed curriculum vitae to: **David A. Greenberg, O.D., M.P.H., Vice President for Academic Affairs/Dean, Illinois College of Optometry, 3241 South Michigan Avenue, Chicago, IL 60616** no later than 1 March 1992. *The Illinois College of Optometry is an Affirmative Action, Equal Opportunity Employer.*

UNIVERSITY OF HONG KONG

STAFF TUTORSHIP IN EXTRAMURAL STUDIES

Applications are invited for a post of Staff Tutor in the Department of Extramural Studies. Applicants should hold a Ph.D. degree. The appointee should have a background in biomedical sciences and will be expected to support existing programs as well as contribute to new developments.

Annual salary: HK\$309,120 to \$516,480 (11-point scale) (UK equivalent: £23,242 to £38,833 as at 25 October 1991). Starting salary will depend on qualifications and experience. The post is available on a superannuable or a contract basis.

At current rates, salaries tax will not exceed 15% of gross income. Children's education allowances, leave, and medical benefits are provided; housing or tenancy allowances are also provided in most cases at a charge of 7.5% of salary.

Further particulars and application forms may be obtained from **Appointments (40033), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, United Kingdom**, or from the **Senior Assistant Registrar, Extramural Studies, University of Hong Kong, Hong Kong; FAX: 852-5597528**. Closes: 10 January 1992.

VISITING POSITION BIOLOGY DEPARTMENT WILLIAMS COLLEGE

Beginning July 1992, a 2- or 3-year visiting position, funded by a grant from the Howard Hughes Medical Institute, to help teach in and develop a new introductory biology sequence. Additional teaching in an upper-level course in the applicant's general area of specialty is expected. Ph.D. required.

Please send curriculum vitae, statement of teaching interests/experience, and two letters of recommendation, by 15 January 1992 to: **William DeWitt, Department of Biology, Williams College, Williamstown, MA 01267**.

An Equal Opportunity/Affirmative Action Employer, Williams College especially welcomes applications from women and minority candidates.

COGNITIVE NEUROSCIENCE. The Department of Psychology at Carnegie Mellon University invites applications from cognitive neuroscientists for a **FACULTY POSITION** preferably at, but not necessarily limited to, the junior level. Cognitive neuroscience at Carnegie Mellon is characterized by attempts to arrive at cognitive theories derived from consideration of the computational properties of neural circuitry, from patterns of damage following brain injury, and from the postnatal development of the brain. A variety of different techniques ranging from connectionist modeling to animal studies are currently utilized. In the near future opportunities for PET scanning will also become available. This hiring is part of a plan to make cognitive neuroscience an independent "track" within the department. Please send curriculum vitae, statement of research interests, representative papers, and three letters of recommendation to: **Cognitive Neuroscience Search Committee, Department of Psychology, Carnegie Mellon University, Pittsburgh, PA 15213-3890**. Application deadline: 1 February 1992. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

NEUROSCIENCE—PHYSIOLOGY

The University of Scranton, an independent Jesuit University, anticipates hiring **TWO TENURE-TRACK BIOLOGY FACULTY**. One position in neuroscience involves teaching an upper division neurophysiology course and participation in the general biology and general physiology courses. The second position, in physiology, involves participation in the general physiology and general biology courses for majors and nonmajors. Excellence in teaching and maintenance of an active research program that will involve undergraduate students are expected. Applicants should submit curriculum vitae, a statement of teaching and research interests, and three letters of reference sent no later than 15 January 1992 to: **Dr. Gary G. Kwiecinski, Chair, Search Committee, Department of Biology, University of Scranton, Scranton, PA 18510-4625**. *The University of Scranton is an Affirmative Action/Equal Opportunity Employer.*

JUNIOR FACULTY POSITION

The Eleanor Roosevelt Institute, a nonprofit basic biomedical research facility, invites applications for a junior faculty appointment. Candidates must have a Ph.D. or M.D. and 2 to 3 years of postdoctoral experience. Excellence in both research productivity and potential for development of an independent research program will be strongly considered. Particular consideration will be given to candidates whose research interests complement those of the present faculty which include, but are not limited to, the human genome, mammalian and cancer genetics, aging, Down syndrome, lipid metabolism and protein modification. Applicants should submit curriculum vitae, a description of current and future research plans and the names and addresses of three references to: **Recruitment Committee, Eleanor Roosevelt Institute, 1899 Gaylord Street, Denver, CO 80206**. *Equal Employment Opportunity/Affirmative Action Employer.*

THE UNIVERSITY OF CHICAGO DIVISION OF THE BIOLOGICAL SCIENCES

The Department of Pharmacological and Physiological Sciences at the University of Chicago is considering **FACULTY APPOINTMENTS** for a tenure-track position. The successful candidate for this position is expected to have a Ph.D. and/or M.D. degree(s) or equivalent, 3 years of postdoctoral research experience and be capable of attracting funding for her/his own research program. The Section on Pharmacology at the University of Chicago has a major orientation around the pharmacology of the central nervous system ranging from the molecular to the behavioral level. The department is seeking an individual whose interests may fall in the wide areas of molecular to organismal pharmacology; while a degree in pharmacology is not required, continued interest in the pharmacological sciences along with some experience is preferred. *From the time of its original charter, the principle of the University of Chicago has been to appoint scholars without regard to race, color, religion, sex or national origin.* Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography and the names of three individuals who are willing to write letters of recommendation to: **Lewis S. Seiden, Ph.D., Head Section on Pharmacology, Department of Pharmacological and Physiological Sciences, University of Chicago, 947 East 58th Street, Chicago, IL 60637**.

POSTDOCTORAL POSITION

Physical chemistry of ligand-DNA interactions. A position is available for the investigation of the structural and thermodynamic basis of sequence specificity of the interactions of proteins, peptides and drugs with DNA using high-resolution quantitative footprinting as a function of pressure and temperature (perturbation footprinting), and other techniques. Candidates should have a background in biochemistry or physical chemistry. Send curriculum vitae and arrange for letters of reference to be sent to: **Robert Macgregor, Department of Medicinal Chemistry, MC 781, University of Illinois at Chicago, Chicago, IL 60680-6998**. *The University of Illinois at Chicago is an Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF BIOLOGY GEORGIA SOUTHWESTERN COLLEGE

The Department of Biology, Georgia Southwestern College, invites applications for a tenure-track position to begin 1 September 1992. Recent graduate study in botany is required and expertise in plant physiology and/or molecular biology is desirable. The Ph.D. is required for promotion and tenure, but applicants with clear prospects for completion of the degree in the near future will be considered. Teaching duties will include nonmajor introductory biology as well as some upper level biology courses. Although this is primarily a teaching position, research interest is encouraged. Salary and rank are commensurate with education and experience.

Applicants should submit curriculum vitae; a statement of professional goals; and names, addresses, and telephone numbers of at least three references to: **William L. Tietjen, Chairman, Department of Biology, Georgia Southwestern College, Americus, GA 31709**. Telephone: 912-928-1621. Closing date is 20 January 1992.

Georgia Southwestern College is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION ALBERT EINSTEIN COLLEGE OF MEDICINE MASS SPECTROSCOPY (MS)

The Laboratory for Macromolecular Analysis at the Albert Einstein College of Medicine seeks a faculty member at any rank with experience in solving biochemical and/or protein structural problems by mass spectrometry, and an interest in the development of biomedical mass spectrometry. The MS laboratory will be adjacent to laboratories using peptide synthesis, protein sequencing, x-ray crystallography, and other physical approaches to protein structure in a challenging, collaborative environment. Resources are available for new instrumentation and laboratory facilities. A tenure-track academic appointment is available for qualified candidates. Applicants should send current curriculum vitae, the names of three or more references, and a summary of research interests and future research plans to: **Ms. Joan Savastano, Administrator, Department of Biochemistry, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461**. *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS

TRANSCRIPTIONAL REGULATION IN ENDOTHELIAL CELLS CARDIOLOGY DIVISION VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

Postdoctoral positions are available for candidates with Ph.D. or M.D. degree to begin study 1 April 1992 and thereafter. Trainees will join already existing efforts to investigate endothelial cell mechanisms of transcriptional regulation, with particular attention to differentiation and lineage determination. In vitro and transgenic experiments will utilize established technology to investigate cell-specific elements associated with marker genes. Other studies will develop in vitro models of endothelial cell differentiation, allowing the identification of transcriptional factors involved in this process. Solid training in molecular biology, cell biology, or developmental biology is required. Excellent opportunities for future advancement to tenure-track faculty positions are available. Please send curriculum vitae and names of three references to: **Thomas Quertermous, M.D., Chief, Division of Cardiology, Vanderbilt University School of Medicine, Nashville, TN 37232-2170**. *Vanderbilt University is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN IMMUNOPARASITOLOGY. NIH-funded, starting date 1 January 1992. The emphasis is on trichomonads parasitic in humans. The candidates must have a Ph.D. or an equivalent degree and must be familiar with modern immunologic and immunochemical techniques. Knowledge of parasitology is not essential. The salary scale will conform to that used for NIH training grant participants. Please send curriculum vitae and names of three potential references to: **Dr. B. M. Honigberg, Department of Zoology, Morrill Science Center, University of Massachusetts, Amherst, MA 01003-0027**.

An Equal Opportunity Employer

THE CHINESE UNIVERSITY OF HONG KONG (founded 1963) offers comprehensive programmes up to PhD level in the Humanities, Business Administration, Science, Medicine, Social Science, Education, Engineering and Architecture. Current student enrolment is 9,300 full-time equivalent, which will expand to 11,500 by 1994-95. The University is very active in promoting research and consultancies and liaising with industry and the business sector worldwide. Both English and Chinese are used in teaching and administration.

Applications are invited for

Lectureships in Biochemistry

Applicants should have a relevant higher degree (preferably Ph.D. degree) with sufficient research and teaching experience to indicate significant accomplishment as well as outstanding promise. Established skills in neurochemistry or food science or immunology will be an advantage. The appointees are expected to assume duty in September 1992.

Annual Salary

HK\$309,120-350,700 by 2 increments BAR

HK\$371,520-516,480 by 7 increments

(approx. exchange rate :US\$1=HK\$7.8; £1=HK\$13.9)

Salary will be commensurate with qualifications and experience.

Conditions of Service

The University offers a competitive remuneration package. For superannuable appointment, benefits include leave with full-pay, contributory superannuation scheme (University 15%, appointee 5%), medical and dental care, education allowances for children, housing benefit for an appointee with annual salary of HK\$329,880 or above (with appointee contributing 7.5% of salary towards the provision of housing). Appointment may also be made on fixed term contract which carries equivalent benefits including a contract-end gratuity (15% of basic salary) in lieu of superannuable benefits. The University may also consider more flexible terms for suitable candidates.

Application Procedure

Send full resume in duplicate, giving full particulars, as well as names and addresses of 3 referees, together with copies of qualification documents (in duplicate) and recent publications to the Personnel Section, **The Chinese University of Hong Kong, Shatin, Hong Kong (Fax: (852) 603 5026) before January 31, 1992.** Please quote the reference number **102/509/2/91** and mark "Recruitment" on cover.

U.S. Department of Energy
Office of Health and Environmental Research



Human Genome

DISTINGUISHED Postdoctoral Fellowships

**Research Opportunities in Biology, Chemistry,
Physics, Mathematics, Engineering,
and Information Science**

- Research related to Human Genome Program
- Tenable at various national and university laboratories
- Stipends \$35,000
- Doctoral degree received after May 1, 1989
- U.S. citizens or permanent resident aliens eligible
- Deadline - February 1, 1992
- Information and applications:



Human Genome Postdoctoral Fellowships
Science/Engineering Education Division
Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, Tennessee 37831-0117
(615) 576-4805

POST-DOCTORAL POSITION

National Institute of Diabetes and Digestive and Kidney Diseases Phoenix, Arizona

A post-doctoral fellowship is available for a recent Ph.D. in biochemistry or related discipline to participate in studies of the mechanism of insulin resistance in man. Results of studies conducted in our laboratory suggest that abnormal regulation of skeletal muscle protein phosphatase (PPI) activity by insulin may be a primary defect responsible for insulin resistance and subsequent development of non-insulin dependent diabetes mellitus in humans. Current projects include studies of mechanisms of insulin regulation of PPI activity and gene expression.

This position is funded through the NIH Intramural Research Training Award Program and has a starting annual stipend of \$25,000 - \$28,000, depending on length of previous post-doctoral experience.

Send curriculum vitae and letter of application to:

David Mott, Ph.D.
Clinical Diabetes and
Nutrition Section
National Institutes of Health
4212 North 16th Street
Room 541
Phoenix, Arizona 85016



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Colloquium Announcement

MASTERMINDING THE BRAIN

January 17, 1992.

A full day colloquium on brain receptor research and its role in understanding and treating addiction and behavioral disorders featuring a unique gathering of leaders in the field.

Presented by The Franklin Institute in conjunction with the presentation of the 1991 Bower Award and Prize for Achievement in Science to Solomon H. Snyder, M.D.

Opening Remarks

C. Everett Koop, M.D., former U.S. Surgeon General
Julius Axelrod, Ph.D., National Institutes of Health
Solomon H. Snyder, M.D., Johns Hopkins University

The Brain and Receptors

Perry B. Molinoff, M.D., University of Pennsylvania
Robert J. Lefkowitz, M.D., Duke University
Richard Axel, M.D., Columbia University
Paul Greengard, Ph.D., Rockefeller University
Anne B. Young, M.D., Ph.D., Harvard Medical School

Brain Receptors and Therapies

Seymour Kety, M.D., National Institute of Mental Health
Peter Whybrow, M.D., University of Pennsylvania
Eric R. Kandel, M.D., Columbia University
Charles O'Brien, M.D., University of Pennsylvania
Frederick K. Goodwin, M.D., NIAAA
Joseph Coyle, M.D., Harvard Medical School

For further information, contact:

Larry E. Tise, Ph.D., Executive Director
The Benjamin Franklin National Memorial
The Franklin Institute
20th Street at the Benjamin Franklin Parkway
Philadelphia, PA 19103
215.448.1329, FAX 215.448.1364



The
Franklin Institute

POSITIONS OPEN

POSTDOCTORAL POSITION available for a recent Ph.D. with strong skills in neurobiology and protein chemistry. The successful candidate will be experienced in either neuron and glia cell culture, neurite outgrowth, cell migration, extracellular matrix, proteoglycan or protease biochemistry [*JCB* 109, 2353 (1989); *JCB* 111, 2663 (1990)]. Send curriculum vitae to: **Dr. David Muir, Developmental Neuro-Oncology Laboratory, Box 100296, JHM Health Center, University of Florida College of Medicine, Gainesville, FL 32610-0296. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately at the University of California, San Francisco, for Ph.D. in chemistry or biochemistry for studies of the enzymatic mechanism of cytochrome P-450. Project requires knowledge of spectroscopic and kinetic techniques. Skills in molecular biology optional. Send application and have three letters of reference sent to: **L. Waskell, M.D., Ph.D., University of California San Francisco, VA Medical Center, Department of Anesthesiology, 4150 Clement Street, San Francisco, CA 94121. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. Available immediately, for at least 2 years. For the molecular analysis of chromosomal aberrations in breast cancer. Applicants should have experience in molecular and cell biology, including gene cloning. Please send curriculum vitae and the names of three references to: **Edward P. Cohen, M.D., Departments of Microbiology and of Medicine, University of Illinois at Chicago, M/C 790, Box 6998, Chicago, IL 60680. Equal Opportunity Employer.**

POSTDOCTORAL POSITION

Molecular investigations of HIV-related ocular disease. Salary support for 1 year currently available. Experience with basic molecular biological techniques required. Send curriculum vitae and three references to: **Jay S. Pepose, M.D., Ph.D., Washington University School of Medicine, Department of Ophthalmology-Box 8096, 660 South Euclid Avenue, St. Louis, MO 63110.**

Washington University is an Equal Opportunity/Affirmative Action Employer, M/F/H/V.

DOCTORAL PROGRAM IN MICROBIOLOGY AND MOLECULAR GENETICS seeks quality candidates to study molecular genetics, virology, immunology, pathogenic microbiology, microbial biochemistry, biotechnology, and applied and environmental biology in a cooperative program between Rutgers, The State University of New Jersey, and the University of Medicine and Dentistry of New Jersey. Ninety faculty from various university departments, research centers and institutes participate in the program to provide excellent research training and employment opportunities. Fellowships, assistantships and scholarships provide up to \$12,000 stipend plus tuition to qualified applicants on a competitive basis. Contact: **Dr. Alan D. Antoine, Graduate Program in Microbiology and Molecular Genetics, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 908-932-9881, or FAX: 908-932-1262.**

An Affirmative Action Equal Opportunity Employer.

POSTDOCTORAL POSITION available to study gene regulation in response to environmental signals using molecular, genetic, and biochemical approaches. A focus of the group is the characterization of OxyR, a transcription factor regulated by oxidation and reduction [*Science* 248, 189 (1990)]. Background in molecular biology or inorganic chemistry desirable. Send curriculum vitae to: **Dr. Gisela Storz, National Institutes of Health, Cell Biology and Metabolism Branch, National Institute of Child Developmental Health and Human Development, 9000 Rockville Pike, Building 18T, Room 101, Bethesda, MD 20892. NIH is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION. Available for research on lymphoid neoplasia with respect to cellular origin and their role in immune dysfunction. Candidates with expertise in molecular biology and/or biochemistry are desired. Send curriculum vitae and name and addresses of three references to: **L. E. Silberstein, University of Pennsylvania, Department of Pathology and Laboratory Medicine, 3400 Spruce Street, Founders 6.079, Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION MOLECULAR AND POPULATION GENETICS OF HIGHER PRIMATES

The New York Consortium in Evolutionary Primatology (NYCEP), consisting of 22 faculty from City University of New York, Columbia University, New York University, The American Museum of Natural History (AMNH), and Wildlife Conservation International (NYZS), invites applications to join a team using molecular genetic techniques (including RFLP analysis, PCR amplification and sequencing of DNA) to elucidate (1) the effects of behavior and demography on population structure in primates, and (2) primate phylogeny and systematics. The successful applicant will work primarily with either Dr. Don Melnick (Columbia University) or Dr. Clifford Jolly (New York University), for 1 year starting in September 1992. Applicants should have laboratory experience and the Ph.D. Salary and benefits are competitive. Please send a preliminary application, including curriculum vitae, a one-page statement of research interests, and names, addresses and telephone numbers of three references to: **Dr. Eric Delson, Vertebrate Paleontology, AMNH, New York, NY 10024. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS IN NEUROSCIENCE available immediately to study immediate early genes (Fos and Jun) and heat shock (HSP72 and GRP78) genes in mammalian neurons and astrocytes in vivo and in vitro. Experience performing Northern blots, Westerns, and immunocytochemistry preferred. Ph.D. or M.D. in neuroscience or cellular biology required. Send curriculum vitae with names of three references by 1 March 1992 to: **Professors F. R. Sharp and S. M. Sagar, Neurology V127, UCSF and SFVAMC, 4150 Clement Street, San Francisco, CA 94121. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOW

Position available fall 1991, to investigate development of the mechanisms regulating catecholamine secretion in fetal adrenal medulla. Includes study of neurotransmitter receptors, signal transduction mechanisms and regulation of gene expression of catecholamine biosynthetic enzymes. Experience in molecular biology is required. Candidate should be U.S. citizen or permanent resident. Applicants submit letter stating interest, curriculum vitae and names of three references: **C. Y. Cheung, Department of Reproductive Medicine (0802), University of California, San Diego, La Jolla, CA 92093-0802. The University of California San Diego is an Affirmative Action/Equal Opportunity Employer. Salary related to rank and step of appointment is within the established salary schedule of the University of California San Diego School of Medicine.**

POSTDOCTORAL FELLOWSHIP IN SEATTLE

An **ELECTRON MICROSCOPIST** (with experience in post-embedding immunolabeling) is sought to pursue NIH-funded research on the intracellular routing of immunoconjugates in cancer cells. Please send curriculum vitae to: **Oliver Press, M.D., Ph.D., Mailstop RC-08, University of Washington, Seattle, WA 98195. Telephone: 206-548-4938.**

GRADUATE AND POSTDOCTORAL FELLOWSHIPS IN REPRODUCTIVE SCIENCES

Pre- and postdoctoral fellowships are available for training in reproductive sciences at The University of Michigan. An interdisciplinary program involves 30 faculty in 16 basic science and clinical departments. Research activities include: protein hormone action; neuroendocrine regulation of cyclicity; endocrine rhythm; mechanisms of hormone biosynthesis; control of gene expression; sexual development and puberty; and structure and function of steroid-secreting cells; hormonal regulation of follicular maturation; differentiation and atresia; and corpus luteum function. Application materials must be received 1 March 1992. Only U.S. citizens and permanent residents are eligible. Application information and descriptions of research programs are available from: **Dr. Thomas Landefeld, Program Coordinator, Reproductive Sciences Program, The University of Michigan, 11th Floor, 300 North Ingalls, Ann Arbor, MI 48109-0404. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

FELLOWSHIPS IN MATHEMATICS AND MOLECULAR BIOLOGY

The Program in Mathematics and Molecular Biology has graduate and postdoctoral fellowship support available. Current topics in the program include geometry, topology, and sequence analysis of DNA, molecular dynamics, and mapping functions and algorithms for DNA and protein structure prediction. Other areas will be considered. Fellowships can be held at any university or college in the United States. Deadline for applications: 1 February 1992. *Women and minorities are encouraged to apply.* Apply to: **Dr. S. J. Spengler/Dr. N. R. Cozzarelli, PMMB, 103 Donner Laboratory, University of California, Berkeley, CA 94720. E-mail: sylviaj@violet.berkeley.edu.**

C. H. BEST INSTITUTE POSTDOCTORAL FELLOWSHIP

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 1992 with a competitive stipend available to new Ph.D.'s or candidates with less than 2 years of postdoctoral training by 30 June 1992. Send curriculum vitae, transcripts and three letters of reference, preferably before 15 January 1992 to: **Dr. Jennifer Dorrington, Fellowship Committee Chairman, Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, Canada M5G 1L6.**

THE MORRISON MEMORIAL POSTDOCTORAL FELLOWSHIP

The Department of Biochemistry, St. Jude Children's Research Hospital (SJCRH), is enlarging its research efforts in the area of the molecular and cellular biology of signal transduction. As part of this expansion, the Board of Governors has established a memorial fellowship in honor of Dr. Martin Morrison, the founding chairman of the department. The research programs within the department are well equipped and offer recent Ph.D. or M.D. graduates the opportunity to participate in energetic multidisciplinary groups dealing with a range of basic and clinically oriented research. SJCRH offers a competitive stipend and annual review for reappointment. Current research programs within the department include:

- W. Y. Cheung: Regulatory properties and biological functions of calmodulin, Ca^{2+} -regulated enzymes and other Ca^{2+} -binding proteins.
- J. Cleveland: Transcriptional regulatory factors which control myeloid cell cycle progression.
- J. N. Ihle: Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation
- S. Jackowski: Cell cycle regulation of membrane phospholipid biosynthesis.
- C. Rock: Role of phospholipid-derived second messengers in growth factor action.

Applicants should submit a brief statement of their research interests, curriculum vitae, reprints, and the names of three references to:

**The Morrison Postdoctoral Fellowship
Department of Biochemistry
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38101**

An Equal Opportunity/Affirmative Action Employer.

RESEARCH FELLOWSHIPS IN EPIDEMIOLOGY OF LUNG DISEASES. NIH-supported stipends and tuition fees for a 2-year program working in airways hyperreactivity and/or natural history studies on chronic lung disease along with didactic training in epidemiology leading to a master's degree from Harvard University. Must be eligible in internal medicine or equivalent. Candidates with clinical training in pulmonary diseases preferred but not required. *Available for U.S. citizens and permanent visa holders.* Inquire: **Frank E. Speizer, M.D., Professor of Medicine, Harvard Medical School, Co-Director, Channing Laboratory, Department of Medicine, Brigham and Women's Hospital, 180 Longwood Avenue, Boston, MA 02115. This program specifically encourages applications by minority group members. The Brigham and Women's Hospital is an Equal Opportunity Employer.**



BIOSTRUCTURE SA,
France
and
ADA Software,
India



**are looking for
COMPUTATIONAL CHEMISTS/
APPLICATION SCIENTISTS**

Biostructure, the European leader in Molecular Modelling systems, and ADA Software, an Indian computer-aided software engineering organisation, have joint projects to develop state-of-the-art computer-aided molecular design software.

We have immediate openings for outstanding scientists to join our teams in France and in India. These two teams will work in close contact.

The successful Ph.D. scientists will have expertise in Molecular Modelling related to Drug Design and Protein Modelling. A background in Molecular Biology would be an advantage. The positions require excellent communication skills. You will join a team designing tomorrow's Molecular Modelling products.

If you are interested in joining this challenging, innovative team, please send your resume to:

Dr. Jean-Marie Wurtz
BIOSTRUCTURE SA
Les Algorithmes-Euclide
Parc d'Innovation
F-67400 Illkirch
France

ASSOCIATE DIRECTOR- BIOLOGICAL MANUFACTURING

Wyeth-Ayerst Laboratories, a division of American Home Products, a Fortune 100 company, is a leading multinational ethical pharmaceutical, vaccine and nutritional manufacturer. Currently, we have an exceptional opportunity for an individual to direct operations for the manufacture of biological vaccines at our Marietta, PA facility. The qualified candidate will also coordinate activities with other departments and government agencies.

This position is the top level operational position in Biological Manufacturing at the plant level and reports directly to the Managing Director. Primary responsibilities include directing operations for the manufacture of biological vaccines and the resolution of manufacturing problems. The Associate Director interacts with government agencies and prepares documents for regulatory approval. A Ph.D. degree in biological science, preferably in microbiology, virology or molecular biology, is desired. A knowledge of protein chemistry, lyophilization and fermentation is preferred. We require experience, including some at the managerial level, in coordinating vaccine manufacturing activities with support groups and government regulatory agencies.

Other requirements include knowledge of:

- Vaccine manufacturing procedures and good manufacturing practices
- FDA regulatory requirements for biological products and for the development and licensing of new biologicals
- Aseptic processing and principles of process validation

Additional requirements include independent research requiring the analysis of problems, data and solutions. Good writing and communication skills are also essential.

We offer a competitive salary and an excellent benefits package. Qualified candidates should submit a resume, including salary requirements to: **Personnel Section, Wyeth-Ayerst Laboratories, P.O. Box 304, Marietta, PA 17547.** Equal Opportunity Employer, M/F/D/V responses encouraged.



Leading The Way For A Healthier World.

TOXICOLOGIST

Department of Environmental Health
College of Veterinary Medicine and
Biomedical Sciences
Colorado State University

Applications are invited for a tenure-track position at the rank of **Assistant, Associate or Full Professor.** Applicants should have a doctoral degree and research and professional experience in toxicology or an appropriate related science. Postdoctoral experience is preferred. The successful candidate will be expected to participate in teaching and to develop an externally funded research program. The salary for this position is to be negotiated.

An individual is sought who will complement the interests of the other faculty and be involved in the immediate development of our growing toxicology program. Contribution to the department's training and research programs in occupational health and epidemiology is also desired. While any fundable research area in toxicology will be considered, the following areas are of primary interest:

-Mechanistic toxicology: Molecular/cellular mechanisms of toxicological interactions, including carcinogenesis

-Environmental toxicology: Molecular/cellular approaches to assessment of environmental exposure of animals or humans

-Predictive toxicology: Physiologically-based pharmacokinetics/pharmacodynamics and risk assessment

Send a CV, description of research and teaching interests and names and phone numbers of 3 references by January 15, 1992 to:

Toxicology Search Committee
Department of Environmental Health
Colorado State University
Fort Collins, CO 80523

CSU is an EEO/AA employer EO Office: 21 Spruce Hall

NYU
Medical
Center

Associate Research Scientist

We have a Post Doctoral position available for Spring of 1992 in the lab of Dr. Claudio Basilio, Department of Microbiology. Areas of research presently being investigated are as follows:

- The mechanism of transformation of the K-FGF/*hst* oncogene and its oncogenic potential *in vivo*.
- The interaction of K-FGF and other members of the FGF family of growth factors with their receptors.
- The regulation of expression of K-FGF and its role in development.
- Cloning and characterization of genes involved in cell cycle progression in animal cells.
- The regulation of expression of the Asparagine Synthetase gene by amino acid starvation, and the mechanism(s) by which amino acid deprivation leads to G1 arrest.

A background in Molecular Biology, Genetics, Biochemistry or Cell Biology is required. Salary is open.

If you're interested in investigating a great opportunity, send C.V. and names of references to Ms. Singh, Human Resources Dept., NYU Medical Center, 550 First Ave., New York, NY 10016. EOE, M/F.

National Institutes of Health

RESEARCH SCIENTIST/ POSTDOCTORAL FELLOW (Molecular Biologist)

The Laboratory of Cellular Development and Oncology, National Institute of Dental Research seeks an outstanding candidate with graduate education and/or experience in Pharmacology, Biochemistry or Molecular Biology for a senior postdoctoral fellowship position. Applicants should have at least 2 years postdoctoral training and research experience in signal transduction through G proteins and G protein-coupled receptors as well as signalling through non-receptors and receptor-tyrosine kinases. Additionally, the applicant should be familiar with radioreceptor binding assays, in-vitro receptor radioautography, in-vitro and in-vivo pharmacology, tissue culture techniques including biological assays for mitogens and transforming genes, DNA recombination techniques including construction of cDNA libraries, construction of mutant and chimeric molecules and expression of cloned genes in mammalian cells using recombinant retroviral vectors. A substantial record of publications of original work in these areas is required. Starting salary will be commensurate with qualifications and experience. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests and names of three references no later than **January 17, 1992.** Material should be sent to: **Faye M. Harbrant, Personnel Management Specialist, National Institute of Dental Research, National Institutes of Health, Bldg. 31, Rm. 2C23, 9000 Rockville Pike, Bethesda, MD 20892.**

NIH is an Equal Opportunity Employer

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC, represents Glaxo's continued commitment to the discovery and development of drugs for unmet patient needs. We invite you to experience the challenges and accomplishments a future with us holds for you. The following opportunity is now available.

ASSOCIATE SCIENTIST

Selected individual will conduct research projects that involve the development of assay systems necessary to study therapeutic targets. Successful candidate will have experience with at least one of the following techniques: protein purification and characterization, ligand-receptor interactions, enzyme kinetics, cell culture, molecular biology, or immunochemistry.

Background must include a BS Degree with a minimum of 2-4 years experience or an MS with 0-2 years experience in chemical or biological disciplines. Candidate must be able to think independently, work with minimum daily supervision, and oversee the general maintenance of the laboratory. Excellent verbal and written skills are required.

Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world famous scientific, industrial and academic community in Research Triangle Park, NC. Send your resume, including salary history, to: Human Resources Department, Job # 9127B207-SC, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please) An Equal Opportunity Employer M/F/H/V.

Glaxo Inc.

Research Scientist - Population Modelling

Aus \$42K to \$56K + superannuation

Division of Fisheries - Hobart, Tasmania, Australia

We are seeking an innovative scientist to lead research into the community and population dynamics of temperate Australian fish stocks to complement studies on the ecology and assessment of multi-species trawl fisheries. The appointee will play a major role in the development of these studies and in communicating results to industry and management.

You will need a PhD in quantitative zoology, fisheries biology or applied mathematics, a strong background in models of biological systems, and a superior record of innovative research.

For more information, contact Dr R Thresher by telephoning Aus (002) 206 222, fax (002) 240 530 or telex AA57182. The position is indefinite (tenured) and assistance with relocation costs is provided.

Applications should be addressed to: The Chief, CSIRO Division of Fisheries, GPO Box 1538, Hobart Tas 7001 Australia by 27 January 1992, quoting Reference Number FC91/8.



CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER

ROCHE

MOLECULAR MECHANISMS OF LYMPHOCYTE MIGRATION

SENIOR SCIENTISTS

Hoffmann-La Roche has an established research team investigating leukocyte trafficking and its role in the inflammatory process. Our strong interdisciplinary program involves a commitment from many areas of research, including Molecular Biology, Hybridoma/Cell Biology, Protein Biochemistry/ Crystallography, Carbohydrate Chemistry and Pharmacology. As part of our effort to expand our program, we are searching for three research scientists to investigate the role of cell surface adhesion molecules in lymphocyte migration.

IMMUNOLOGIST

Investigate the role of adhesion molecules in lymphocyte trafficking *in vivo*; establish animal models of T cell-mediated autoimmune and inflammatory diseases; and evaluate the contribution various adhesion molecules play in the pathophysiology of these processes. Qualifications: PhD and postdoctoral training in Immunology, Cell Biology or a related discipline with relevant experience in *in vivo* models. Please refer to Position KMS on c.v.

MOLECULAR BIOLOGIST

Perform structure-function analysis of lymphocyte adhesion proteins and their ligands using gene cloning and expression techniques. Qualifications: PhD and postdoctoral training in Molecular Biology, Biochemistry or a related discipline with relevant experience in various prokaryotic and eukaryotic expression systems. Please refer to Position DBS on c.v.

CELL BIOLOGIST

Develop cell-based adhesion assays for studying the role of adhesion molecules *in vitro*; and generate monoclonal antibodies to lymphocyte adhesion molecules and their ligands. Qualifications: PhD and post-doctoral training in Cell Biology, Immunology, Biochemistry or a related discipline with relevant experience in cell-cell adhesion assays or the characterization of cell surface proteins. Please refer to Position BWS on c.v.

We are an international pharmaceutical company, offering competitive salaries, a generous bonus and benefits package and state-of-the-art resources enabling scientific discovery. For confidential consideration, please send your curriculum vitae, a letter outlining your research interests and your present salary, to: Mrs. Eleanor Malone, Staffing and Employee Services, Department EM351, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.

ROCHE

Hoffmann-La Roche

DIRECTOR OF TECHNOLOGY DEVELOPMENT TULANE UNIVERSITY

The Director of Technology Development is responsible to the Vice President for Research/Graduate Dean for the overall management, supervision, and planning of activities which will promote the University's commercialization of intellectual property. In close consultation with the Vice President for Research/Graduate Dean and other key senior administrators, the Director is expected to develop and implement programs in order to create a comprehensive inventory of Tulane's intellectual property, identify promising technological developments and encourage their disclosure, undertake the protection of Tulane's intellectual property, either directly or in cooperation with outside counsel, and commercialize this property through an aggressive licensing program. In addition, the Director will serve as the principal spokesperson with the University community in matters relating to the commercial value of research findings. To that end, the Director of Technology Development will take steps to keep faculty and staff fully informed about technology transfer opportunities and the procedures for taking full advantage of them.

Successful candidates must have a thorough knowledge of licensing agreements and other intellectual property practices and procedures. Candidates must also demonstrate a commitment to academic values and entrepreneurial desire, and have demonstrated the ability to effectively communicate with various internal and external constituencies. In addition, experience as an effective negotiator and consensus-builder within an academic, industrial or scientific setting is required. An earned master's degree, M.B.A., or an advanced degree in a scientific discipline is desirable, as well as prior experience at a research university or in an industrial or technical setting dealing with the application of research.

Applications and nominations will be accepted until January 1, 1992. For additional information, please phone Ms. Yvette Jones at (504) 865-5201. Send letter of interest, curriculum vitae and names and telephone numbers of three references to:

Search Committee for Director of Technology Development
Tulane University/Office of Human Resources
Uptown Square-200 Broadway, Suite 318
New Orleans, Louisiana 70118

Senior Scientists

Promega Corporation, a world leading biotechnology company, is currently looking for:

Protein Biochemist

You will develop assays and reagents for sale in the area of protein biochemistry, protein modification, and protein kinases and phosphatases. Ph.D. and extensive postdoctoral experience in assay development are required. Other requirements include determination of enzyme activities in the protein modification area; publications/presentations and experience in purification of at least two protein kinases/phosphatases; some experience with other enzymes.

Enzymologist

This position involves enzyme discovery R & D. You will design and implement experiments designed to identify, characterize, and modify novel enzymes useful for recombinant DNA applications, e.g., DNA and RNA polymerases, proteases, and transcriptases. Ph.D. and two years' postdoctoral experience in characterization of proteins with familiarity in all aspects of current protein biochemistry relating to composition, structure conformation, and function are required. Experience in protein engineering and molecular biology an asset. Knowledge of current protein biochemical literature and analytical methods and protein design are important.

We offer a competitive salary, comprehensive benefits, and a challenging, high-growth environment in our modern facilities. Send resume with references and salary history to: **PROMEGA CORPORATION, HUMAN RESOURCES/RPG, 2800 WOODS HOLLOW ROAD, MADISON, WI 53711-5399.** An Equal Opportunity Employer.



Promega

Central Nervous System Research Position

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SR. RESEARCH SCIENTIST

Central Nervous System Research

The Du Pont Merck Pharmaceutical Company is driven by creative and innovative science to help meet society's healthcare needs through the discovery of novel pharmaceuticals.

We currently have a position for a Cognitive Psychologist in the Central Nervous System Diseases Research Section. The ideal candidate will have a Ph.D. and be skilled in a wide variety of behavioral pharmacological techniques including operant procedures and should have a strong central nervous system pharmacology background. This position requires a flexible individual whose responsibilities will be to develop non-human models to evaluate therapeutic agents for the treatment of cognitive disorders. The ideal candidate should have at least 5 years' research experience in this field; industrial experience is a plus.

Our location, near Wilmington, DE, offers an attractive lifestyle with easy access to all the cultural, academic and recreational activities of the Eastern Seaboard. The Du Pont Merck Pharmaceutical Company can offer you an excellent compensation and benefits package. Qualified candidates should send a resume to: Manager, Professional Employment & Placement, The Du Pont Merck Pharmaceutical Company, Dept. CNS, Du Pont Experimental

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Wilmington, DE
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POSITIONS OPEN

ASSISTANT RESEARCH ASTROPHYSICIST CENTER FOR PARTICLE ASTROPHYSICS UNIVERSITY OF CALIFORNIA AT BERKELEY

The Center for Particle Astrophysics, an NSF Science and Technology Center, invites applications for the position of **CENTER FELLOW**.

The center is investigating the dark matter problem through four lines of experimental attack: using conventional and cryogenic detectors to detect the interaction of dark matter particles in the laboratory; studying the diffuse radiation from the early universe (particularly the 3K microwave background); using distant supernovae to determine how much dark matter exists; and studying the role of dark matter in the evolution of large-scale structure. The Center Fellowship is intended to provide a young experimentalist with the opportunity to bring fresh insight (particularly from other fields of physics) to bear on the dark matter. This 2-year position will start in January 1993.

Candidates should have a Ph.D. in physics or astronomy. Salary will be commensurate with experience. Interested applicants should submit a statement of their research interests, curriculum vitae, and arrange for letters of support from three referees who are familiar with their work. These items and a letter of application should be sent to:

Professor Bernard Sadoulet
Center for Particle Astrophysics
301 Le Conte Hall
University of California
Berkeley, CA 94720

The closing date for applications will be 15 November 1992. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW

Available immediately to study: (1) Molecular biological/biochemical questions in the eye as it is affected by aging, nutrition, protease, and/or antioxidant function. (2) Mechanisms of life extension via dietary caloric restriction. Candidates are invited to send résumé and three letters of reference to: **Dr. Allen Taylor, USDA Human Nutrition Research Center on Aging at Tufts University, 711 Washington Street, Boston, MA 02111.** *We are an Equal Opportunity Employer.*

RESEARCH ASSISTANT POSITIONS available for two projects in the Department of Microbiology at the University of Connecticut Health Center: (1) molecular genetics and biochemistry of herpes simplex virus DNA replication; (2) genetic mechanisms of regulation of O-antigen synthesis in *Salmonella*. B.A. or B.S. in biology, biochemistry or chemistry with 2 years of research experience or masters' degree required. A minimum of 1 year of experience in molecular biology or recombinant DNA technology preferred. Please send curriculum vitae and three letters of reference to:

Ms. Dee Cianciolo (Search Code MO-2034)
The University of Connecticut Health Center
P.O. Box 4035
Farmington, CT 06034-4035.

An Affirmative Action/Equal Opportunity Employer, M/W/H.

RESEARCH ASSOCIATE for university in central Ohio. Conducts independent research in the general area of polar-midlatitude atmospheric interactions using General Circulation Models as one tool; runs and analyzes output from existing global-scale and mesoscale numerical models of the atmosphere and oceans; develops software for analysis of model output and observational data; adapts model codes for new applications; prepares reports for scientific journals and funding agencies. No experience required in the duties described but applicants will qualify with the following: Ph.D. in meteorology and 2 years experience constructing, using and analyzing output from numerical models of the global large-scale and mesoscale atmosphere and/or ocean; with analysis of very large data sets; and using CRAY Y-MP supercomputer, UNIX workstations, the NCAR Community Climate Model and the NCAR Graphics Package; experience may be gained concurrent with degree. Forty hours per week, 8 a.m. to 5 p.m., Monday to Friday; \$27,084 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumés in duplicate (no calls) to: **G. Maugans, JO#1260335, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE in gene expression. Position is available to study cis- and trans-regulation of *Drosophila* muscle gene transcription in vitro and in transgenic flies [see *Mol. Cell. Biol.* 11, 1901 (1991)]. Applicants must have a Ph.D. and experience in recombinant DNA methods is desirable. Salary is competitive. Application deadline is 1 April 1992. Send curriculum vitae and names of three references to: **Dr. Robert V. Storti, Department of Biochemistry (MC/536), University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612.** *Affirmative Action/Equal Opportunity Employer.*

GRADUATE RESEARCH ASSISTANTSHIPS. Applications are invited for research assistantships leading to the Ph.D. degree. Research opportunities in biomaterials science involve cutting-edge investigations in: synthetic carbohydrate chemistry; chemical structure analysis; molecular conformations of polysaccharides and polynucleotides by x-ray fiber diffraction analysis; crystallography and diffraction theory; polymer physics; modeling of partially ordered macromolecules; nondestructive analysis of heterogeneous materials by NMR; NMR-detected molecular motions in gels, crystalline lipids, fibers, and frozen systems; food physical chemistry; electron microscopy. Students with B.S. or M.S. degrees in chemistry, physics, engineering, and related disciplines are invited to contact **The Whistler Center for Carbohydrate Research, Purdue University, 1160 Smith Hall, West Lafayette, IN 47907-1160.**

Purdue University is an Affirmative Action/Equal Opportunity Employer.

U.S. DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS) SOUTHERN REGIONAL RESEARCH CENTER NEW ORLEANS, LOUISIANA

A POSTDOCTORAL RESEARCH GENETICIST/MOLECULAR BIOLOGIST position is available at the GS-11/12 level. The objective of the research is to clone genes regulating aflatoxin biosynthesis. For further information contact: **Dr. T. E. Cleveland; telephone: 504-286-4531.** For information on forms and application procedures, contact: **Judy Harrington; telephone: 301-344-1506.** Responses to this advertisement should be marked **S-2-001.** *USDA/ARS is an Equal Opportunity Employer.*

RESEARCH ASSOCIATE to assist in artificial liver development: evaluation of suitability of cell line for use in human therapy by evaluation of drug and small molecule metabolism; design and monitor large animal studies to evaluate efficacy of treatment of fulminant hepatic failure; characterization of human liver cell line and its products. Requires independent research. Must have M.D.; 2 years of pathology residency; 2 years of basic science laboratory research including basic cell culture technique with facility in large-scale culture, ability to obtain and evaluate both animal and human liver biopsies, use of athymic mice to evaluate cell tumorigenicity and facility in production and use of polyclonal and monoclonal antibodies. Also needs one publication in a peer-reviewed journal in the field of cancer research and immunology. Salary: \$28,000 per year; 40 hours per week. Apply with **Texas Employment Commission, Houston, Texas**, or send to the **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #6521452.** *Ad paid by an Equal Opportunity Employer.*

Lovelace Medical Foundation has **ASSOCIATE SCIENTIST** staff position available in the center for photomedicine to study the effects of ultraviolet radiation on mammalian skin and eyes. Ph.D. and postdoctoral experience in molecular biology and photobiology are required. Send curriculum vitae to: **Judy Coalson, Lovelace Medical Foundation, 2425 Ridgcrest Drive S.E., Albuquerque, NM 87108.** *Affirmative Action/Equal Opportunity Employer.*

BURROUGHS WELLCOME SCIENTIST. To study the regulation of genes coding for heme oxygenase (HSP 32) and biliverdin reductase isozymes. Expertise in molecular biology techniques as applies to eukaryotic cells is required. Send curriculum vitae to: **Dr. M. D. Maines, Department of Biophysics, University of Rochester (UR) School of Medicine, Box BPHYS, Rochester, NY 14642.** *UR is an Equal Opportunity/*

POSITIONS OPEN

RESEARCH ASSOCIATE

The Division of Bone and Mineral Metabolism, Medical University of South Carolina and Charleston VA Medical Center, seeks applicants with a Ph.D. and postdoctoral training in cell and molecular biology for a tenure-track position of research associate. The successful candidate is expected to join a well-funded laboratory at the VA Medical Center and collaborating scientists at the Medical University to investigate functions of osteoblasts and osteoclasts using modern biochemical techniques and to develop a strong research program. Application for an academic appointment in a basic science department at the Medical University is strongly encouraged. Send applications with curriculum vitae, list of publications, one-page summary of past accomplishments, and one-page plan of future research and have three letters of recommendation sent to: **Dr. Norman Bell, VA Medical Center, 109 Bee Street, Charleston, SC 29401-5799.** *The Medical University of South Carolina is an Affirmative Action/Equal Opportunity Employer.*

BIOCHEMIST. Manhattan. Perform research in transplantation immunology including research in the molecular basis of immunosuppressive agents. Construct libraries of cDNA and genomic DNA and cosmid varieties. Perform Northern and Southern hybridization analyses and polymerase chain reactions in DNA sequencing. Screen cDNA and genomic DNA libraries using homogenetic or heterogenetic probes. Perform DNA, RNA and mRNA isolation, subcloning, mapping, and sequencing. Prepare, isolate and analyze proteins and peptides using one- and two-dimensional polyacrylamide gel electrophoresis, radioimmuno-rocket electrophoresis, enzyme-linked immunosorbent assay, immunoprecipitation, ion-exchange chromatography, gel-filtration, chromatography and immunoaffinity chromatography. Perform DNA transformation and transfection and DNA amplification with polymerase chain reaction method. Know and use quantitative PCR methodology. Know and perform HLA tissue typing using oligonucleotide probe hybridization. Supervise two to three. Must have published articles and research results in established scientific journals. Ph.D. in biochemistry or molecular biology plus 3 years of experience in job. In lieu of Ph.D., may possess molecular biology or biochemistry research experience equivalent to Ph.D. training as evaluated by reputable research institution in United States. Thirty-five hours per week. Salary: \$32,000 per year. Send résumé/letter in duplicate to: **MWD #477, One Main Street, Room 501, Brooklyn, NY 11201.**

RESEARCH GS-1320-14 CHEMISTRY POSITION SALARY RANGE \$52,406 TO \$68,129 ROCKVILLE, MARYLAND

DHHS/PHS/Food and Drug Administration (FDA) is seeking a research chemist to lead research activities in biochemistry and molecular virology directed toward development and evaluation of medical devices for diagnosis and inactivation of virus, particularly Arenavirus. Qualifications required: Applicants must have at least 30 semester hours in chemistry, supplemented by course work in mathematics through differential and integral calculus, and at least 6 semester hours of physics, plus appropriate experience or additional education. Incumbent must have a record of research publications including some in the highly specialized area of molecular virology of Arenavirus and also in nucleic acid damage mediated by metal ions. In addition all applicants must have: (1) expertise in DNA sequencing and recombinant DNA technology; (2) evidence of familiarity with the human genome project; (3) professional expertise in nonionizing radiation effects in nucleic acids; (4) qualifications and recognition as qualified to speak authoritatively about technical information and problems in the area of hemorrhagic fever virus. Experience in evaluation of regulatory applications of medical devices for diagnosis would be desirable. An Application for Federal Employment Form (SF-171) and Certificate of Scholastic Achievement, (form 1170/17), both of which can be found at any U.S. Government Personnel Office or most post offices, should be sent by 15 January 1992 to: **Charles L. Best, FDA/CDRH HFZ-105, 12720 Twinbrook Parkway, Rockville, MD 20857.** *FDA is an Equal Opportunity Employer and has a smoke-free environment. All applicants must meet all civil service requirements including U.S. citizenship.*

National Institutes of Health
National Institute of Environmental Health Sciences
Research Triangle Park, North Carolina

MOLECULAR NEUROBIOLOGIST

Research Opportunity
(\$28,000 - \$46,861)

The Neuropharmacology Section of the Laboratory of Molecular and Integrative Neurosciences is seeking an individual to participate in ongoing studies on the regulation of neuropeptides and neurotransmitters in neural systems. Focus is on the molecular mechanisms regulating the expression of genes encoding opioid peptides and catecholamine synthesizing enzymes. Applicants must possess Ph.D. or equivalent and strong experience in neuropharmacology, neurochemistry or molecular biology. The candidate must have a record of demonstrated research productivity and the ability to carry out independent and collaborative research. For additional information, contact Dr. J.S. Hong at 919-541-2358. *To apply, send Curriculum Vitae and the names of three references by February 7, 1992 to:*

Carole Gregory (HN45)
NIEHS Personnel Office
P.O. Box 12233
Research Triangle Park, NC 27709



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ROCHE

POSTDOCTORAL POSITION

**Molecular Biology of
Vacuolar H⁺-ATPase**

The Roche Institute of Molecular Biology is seeking a postdoctoral scientist to study the molecular biology of vacuolar H⁺-ATPase. The enzyme is present in most of the organelles of eukaryotes. We generated several yeast mutants in which genes encoding subunits of the enzyme were inactivated. We are using the mutants for studying the enzyme from various sources including mammalian cells.

The Roche Institute is located in a suburban setting only 10 miles west of New York City. For consideration, please send your curriculum vitae, a description of research experience and interests, and the names of three references, to: **Dr. Nathan Nelson, Department of Gene Regulation, Roche Institute of Molecular Biology, Nutley, New Jersey 07110.** We are an equal opportunity employer.

Roche Institute of Molecular Biology



Hoffmann-La Roche Inc.

Staff

TRANSGENIC TECHNOLOGIST

The Ohio State Biotechnology Program is seeking a qualified individual to manage the transgenic animal facility and to provide technical guidance to researchers throughout the campus in generating transgenic animals. Candidates should have an M.S. or Ph.D. and a minimum of two years of experience in the field. Send curriculum vitae and three letters of reference to: **Dr. Jeffrey N. Masters, Chairperson, Transgenic Technologist Search Committee, Ohio State Biotechnology Center, 206 Rightmire Hall, 1060 Carmack Rd., Columbus, OH 43210-1002.** Screening of candidates will begin January 15, 1992.

THE OHIO STATE UNIVERSITY
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THE SCRIPPS RESEARCH INSTITUTE

Ph.D. Programs
■ **Macromolecular and Cellular
Structure and Chemistry**

■ **Chemistry**

The Scripps Research Institute will admit 5-10 highly qualified students for the fall of 1992 to begin studies for a Ph.D. program integrating cell and molecular biology with structure and chemistry, and 5-10 students for a Ph.D. program in chemistry.

Candidates for these programs must have earned a bachelor's degree and have a strong background in biology and/or chemistry. Qualified applicants will be asked to visit the Research Institute for an interview. Financial support will be provided to all accepted students.

Individuals interested in applying to either graduate program should send a letter describing their scientific interests and goals, as well as a resume of their educational background to:

Dean of Graduate Studies, MB6
The Scripps Research Institute
10666 North Torrey Pines Road
La Jolla, CA 92037

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Postdoctoral Research Staff Member Cell/Molecular Biology

Lawrence Livermore National Laboratory, one of the nation's premier research and development facilities, has a challenging opportunity in its **Biomedical and Environmental Sciences Division**. Experience in cytogenetics, recombinant DNA technology, genome mapping, and/or flow cytometry desirable.

The research will involve the study of the organization of closely spaced sequences in interphase, (pro)metaphase, and replicating chromatin as well as the development of fluorescence in situ hybridization as a tool for genome mapping.

LLNL, affiliated with the University of California, offers outstanding research facilities, plus an excellent compensation and benefits package. Interested candidates, please contact: **Dr. Barbara Trask, (510) 422-5706.** Resumes should be forwarded to: **Phil Harding, Biomedical Sciences Division, Lawrence Livermore National Laboratory, Dept. A92079BS, P.O. Box 5510, L-725, Livermore, CA 94550.** An Equal Opportunity Employer.

University of California

**Lawrence Livermore
National Laboratory**

POSITIONS OPEN

Opening exists in the Dermatology Research Unit for a Ph.D.-level **ASSISTANT RESEARCH CELL BIOLOGIST** with 1 year of postdoctoral training and at least 2 years of work experience in light/electron microscopy, ultrastructural cytochemistry, and lipid histochemistry, and at least 2 years of laboratory experience in handling tissues, including skin from a variety of vertebrate species (mammals, avians, reptiles, etc.). The incumbent will direct functional, histochemical, ultrastructural, and cytochemical studies on the skin barrier, and serve as co-director of a research program. Send applications to: **Peter M. Elias, M.D., Dermatology Service (190), Veterans Administration Medical Center, 4150 Clement Street, San Francisco, CA 94121**, by 1 February 1992. Salary range: \$41,600 to \$45,100, depending on prior experience. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

ASSOCIATE SCIENTIST. Forty hours per week: 8:30 a.m. to 5:00 p.m., \$45,900 per annum. Will lead a group in design, development, installation, commissioning, calibration and operation of read-out electronics for a Silicon Vertex Detector within a larger high-energy physics colliding beams detector. Development of software for data selection, event reconstruction and analysis leading to publication of physics results. Involvement in development of second generation, hardened electronics to ensure long-term operation of the Silicon Vertex Detector.

As a minimum, applicants must hold a Ph.D. in high-energy physics and have either 2 years of experience in the job as described above, or 2 years of postdoctoral research experience in high-energy physics experimentation. Postdoctoral experience must include design, construction and operation of electronics/data acquisition systems of a particle tracking detector for high-energy physics experimentation.

Applicants must have proof of legal authority to work permanently in the United States and should send résumés to: Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: D. Rule, Reference #V-IL-3963-R. No calls. An employer-paid ad.

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE (NIH)

The Laboratory of Cell Biology, National Heart, Lung, and Blood Institute, invites applications for a position as **COLLABORATIVE SCIENTIST, GS-12** (salary range: \$40,000 to \$50,000). The overall emphasis of the laboratory is the understanding of the molecular basis of cell motility, using a combination of biochemical, cell biological, and molecular genetic approaches. The applicant must hold a Ph.D. and or M.D. degree or equivalent experience and have relevant postdoctoral experience. We are seeking an individual with broad experience in protein purification and molecular genetic techniques, as well as in the analysis of cell motility by video-enhanced microscopy. A thorough understanding of the cell and molecular biology of dictyostelium, including transformation and phenotype analysis would be very beneficial. Send curriculum vitae and three letters of recommendation to: **Dr. John Hammer, Laboratory of Cell Biology, Building 3, Room B1-22, National Institutes of Health, Bethesda, MD 20892.**

U.S. citizenship required. NIH is an Equal Opportunity Employer.

HUMAN MOLECULAR GENETICIST. Marshfield Clinic is accepting applications for the position of **SENIOR RESEARCH SCIENTIST** as an expansion of the human genetics research program currently centered in the laboratory of Dr. James Weber. We are seeking an exceptional individual who will develop an outstanding, independent research program. The specific research area is open, although candidates with interests in the areas of cancer or cardiovascular disease are especially encouraged to apply. Candidates must possess a Ph.D. or M.D. degree and at least 2 years of postdoctoral experience. Marshfield offers a newly constructed, equipped laboratory, generous start-up funds, and a competitive salary and benefits package. Evaluation of applications will begin 15 December 1991 and will continue until the position is filled. For consideration, send curriculum vitae, a brief statement of research interests and the names of three references to: **Search Committee 1129SCM, Marshfield Clinic, Human Resources Department, 1000 North Oak Avenue, Marshfield, WI 54449.** *Equal Opportunity Employer, M/F/H/V.*

POSITIONS OPEN

MEDICAL PHYSIOLOGIST

INDIANA UNIVERSITY SCHOOL OF MEDICINE MUNCIE CENTER FOR MEDICAL EDUCATION AT BALL STATE UNIVERSITY MUNCIE, INDIANA

Applications are being invited for a Ball State University tenure-track position in the area of medical physiology. The successful applicant will participate in team teaching medical physiology to first-year medical students and be expected to develop an active research program supported by outside funding. Applicants are expected to have postdoctoral experience, demonstrated research capability, and a commitment to excellence in teaching. Rank and salary will be commensurate with experience. Deadline for applications is 15 February 1992. Send curriculum vitae, a brief summary of research and teaching experience, and the names of three references to: **Dr. Douglas A. Triplett, Director, Muncie Center for Medical Education, Ball State University, Muncie, IN 47306.**

Ball State University is an Equal Opportunity, Affirmative Action Employer and is strongly and actively committed to diversity within its community.

RESEARCH SCIENTIST, ORGANIC CHEMISTRY. Work involves synthesis and characterization of new water-based polymers with commercially useful properties and environmentally friendly characteristics. Requires Ph.D. organic chemistry and 2 years of experience in the job offered or as a researcher or research associate. Must have excellent academic background with specific graduate experience in synthesis and characterization of polymers which are biodegradable or photodegradable. Research abilities must be documented by publications. Forty hours per week, 9:00 a.m. to 5:00 p.m.; \$1023.08 per week. Respond by résumé to **The Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123, Job Order #4430391.**

COURSES AND TRAINING

POSTDOCTORAL TRAINING PROGRAM IN THE CELLULAR/ MOLECULAR BIOLOGY OF AGING

Postdoctoral (Ph.D. or M.D.) positions are available for 2 years of specialized training in the methods and models of research on aging. This program is directed by a consortium which includes The Medical College of Pennsylvania (Drs. V. J. Cristofalo, E. Freidman, P. Phillips and J. Roberts), Thomas Jefferson University (Dr. R. Baserga), Merck, Sharp and Dohme Research Laboratories (Dr. W. W. Nichols), Temple University (Dr. N. Duker) and The Wistar Institute (Drs. D. Kritchevsky and E. Levine). Research emphases include: cell cycle kinetics/dynamics; growth factor regulatory mechanisms; growth/senescence regulatory genes; cellular transformation and immortalization; regulation of gene expression; DNA repair; cytogenetic aspects of cell senescence/immortalization; nutrition, aging and cancer; caloric restriction; vascular cell physiology; cardiovascular physiology/pharmacology; and adrenergic neurotransmission. *Minority candidates are especially encouraged to apply.* Address applications (curriculum vitae, three letters of recommendation and graduate school transcript) to: **Vincent J. Cristofalo, Ph.D., Audrey Meyer Mars Professor and Director, Center for Gerontological Research, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.**

NASA PLANETARY BIOLOGY INTERNSHIPS. The Marine Biological Laboratory, Woods Hole, Massachusetts, invites applications from graduate students and seniors accepted to graduate programs for awards of \$2000 plus travel to participate in research at NASA centers and collaborating institutions for approximately 8 weeks. Typical intern programs include: global ecology, remote sensing, microbial ecology, biomineralization, and origin and early evolution of life. Application deadline: 1 March 1991. For information/applications, contact: **Lorraine Olendzenski, Planetary Biology Internship, Department of Botany, University of Massachusetts, Amherst, MA 01003.** email: PBI@botany.umass.edu. *An Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

PROJECT BIOLOGIST: 2-year position starting January 1992. To design and conduct riparian studies related to flow fluctuations on the Snake River in southwestern Idaho. Minimum requirements are M.Sc. in ecological field; strong quantitative, analytical and communication skills. Must be familiar with western riparian systems, work independently with leadership abilities. Salary of \$29,000 and full benefits. Send cover letter, curriculum vitae, and list of references (three) by January 1992 to: **Allan Ansell, Idaho Power Co., Environmental Affairs, Box 70, Boise, ID 83707.**

REPRODUCTIVE SCIENTISTS

The Center for Fertility and Reproductive Research (C-FARR) within the Department of Obstetrics and Gynecology at Vanderbilt University seeks reproductive scientists (M.D. or Ph.D.) to join an interactive group of scientists and clinicians. Individual research interests should complement our programs in the reproductive sciences. Candidates should have 2 years of postdoctoral experience, publications in refereed journals, and show evidence or hold promise of attracting extramural funds. We anticipate making several tenure-track appointments at a level commensurate with each investigator's experience. Applications must include curriculum vitae and description of research interests. Inquiries and applications should be addressed no later than 15 February 1992 to either: **Kevin G. Osteen, Ph.D., or Michael P. Diamond, M.D., Center for Fertility and Reproductive Research, Department of Obstetrics and Gynecology, C-1100 MCN, Vanderbilt University School of Medicine, Nashville, TN 37232.**

Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

TECHNICAL RECRUITMENT

1992

ASSISTANT DIRECTOR CLINICAL RESEARCH: Multi openings for M.D.'s, Ph.D.'s, all therapeutic areas. Salary: \$80,000 to \$120,000 plus incentives.

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FORMULATION SCIENTISTS: Formulators in all dosage forms in pharmaceuticals. Salary \$50,000 to \$80,000.

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BIostatistician: Multi openings nationwide M.S. to Ph.D.'s expansion openings. Salary: \$45,000 to \$90,000.

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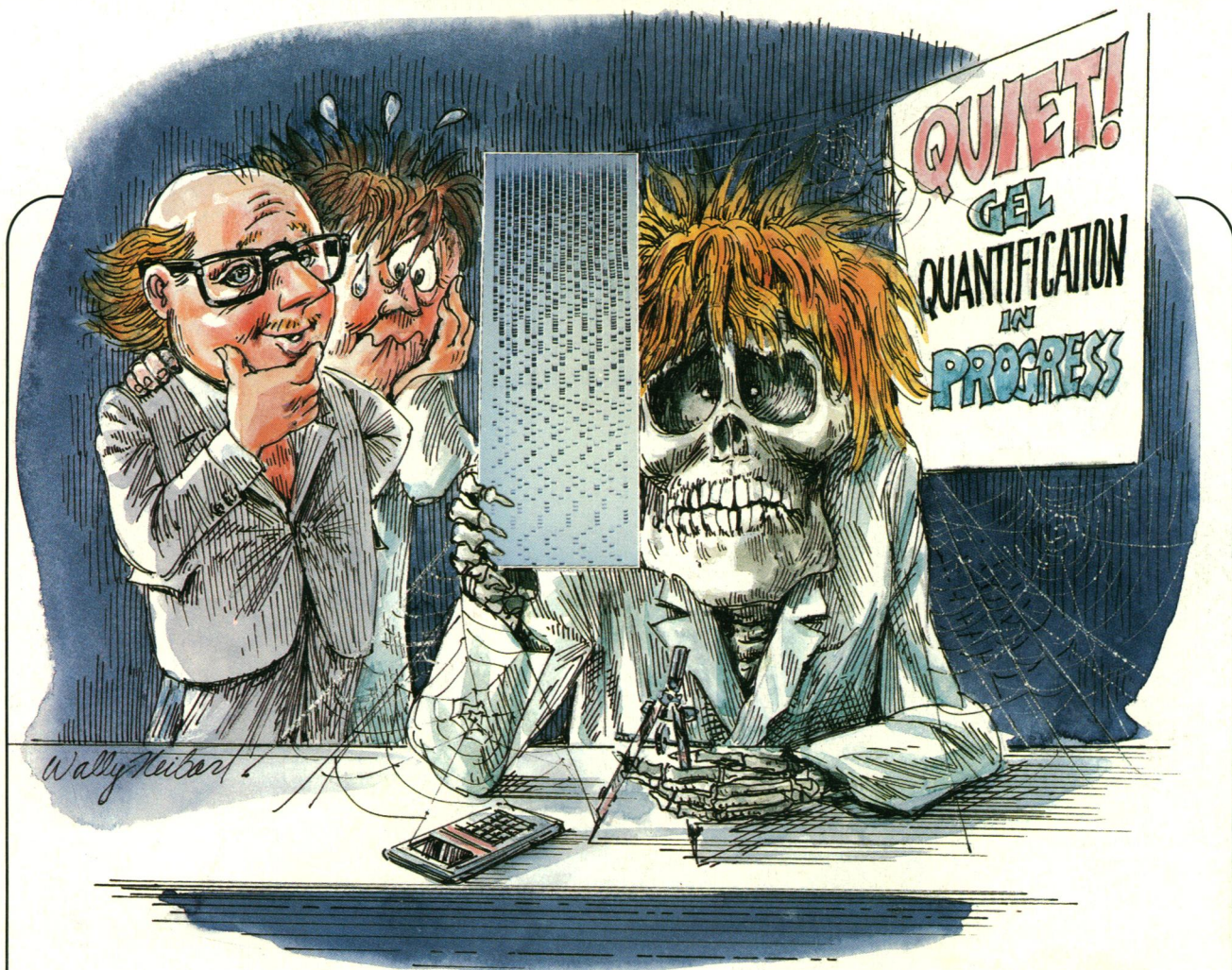
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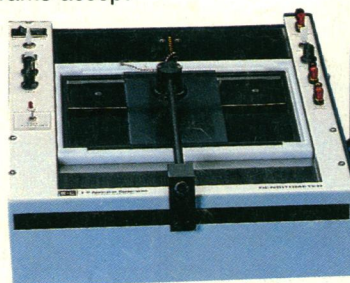
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