

reefs (emphasizing Pacific reefs) has been unevenly realized. The book provides few answers but many restatements of the classic questions. How are high primary production and biotic growth sustained in an environment of low concentration of dissolved nutrients? How do the morphology and depth of the pre-Holocene reefal surface, the nature of the rise of Holocene sea level, and the rate of reef accretion interact to yield the diversity of observed reef types?

The 19 reviews, most written by Australian investigators, are about equally divided between reef biology and reef geology but are arranged in a seemingly random manner. Reef algae, corals, sponges, fish, and cryptic fauna are each treated by a single author. The discussions of cryptofaunal communities, reef erosion, grazing, and productivity cut across taxonomic lines, whereas the discussions of calcification and zonation stress corals over other organisms. A chapter on nutrients rounds out the biological coverage. The geologic coverage includes large-scale topics such as reef growth as measured by drilling and seismic studies and the morphological evolution of the Great Barrier Reef as controlled by changes in Holocene sea level. Discussions of smaller-scale topics, such as reef lithification, reef cavities, and the carbon and oxygen isotopic record retained in the reef framework are also included.

Many of the chapters will, as Barnes hoped, provide useful summaries of the state of the art in disciplines outside an investigator's primary area of specialization. The serious reef researcher should indeed be familiar with most of the material covered in all but the longer reviews. Only in a few cases will the summaries be useful to the specialist within his or her own field, however. My major objection to the book has to do with the unevenness of the reviews, which range in quality from well written, well referenced, scholarly summaries to terse statements that would hardly rate passing grades as term papers. In several cases, extensive rebuttals of earlier Australian work are of regional interest only and are not presented in such a way as to be of general significance. In addition, the index is quite short and is little more than an alphabetization of review titles and generic names.

Still, the book does provide a place to start for those who want a glimpse into areas of coral reef research outside their own specialties. A few of the more extensive reviews will be used and cited,

and because of these reviews the book will not pass into oblivion. But for the most part it will remain on the library shelves for the benefit of students rather than serve as a reference for the serious investigator.

LYNTON S. LAND

Department of Geological Sciences,  
University of Texas, Austin 78712

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**Biomedical/Computer Engineer/Biophysicist.** M.S. biomedical engineering (1984), M.S. physics (1981). Industry experience in software design and development for clinical instrumentation. Familiar with PASCAL, FORTRAN, ASSEMBLY, LISP, COBOL, BASIC, MSDOS, mainframes, minis, micros. Strong mathematical background. Seeks industry or research position. Box 145, SCIENCE. X

**M.S.-M.D. Biomedical Engineer/Physiologist.** Two years of direct experience in high-speed digital, analog, and human computer interfaces from development through prototype. Additional experience in membrane research, including flow cytometry. Seeking application engineering position in academics or industry. Box 140, SCIENCE. 7/5, 12, 19

**Technical Translator.** Japanese and Russian into English, academic qualifications and 6 years of experience, excellent quality, seeks direct contact with clients for steady full- or part-time translation or abstracting. Telephone: 206-328-2081. 7/5, 7/19; 8/2

## POSITIONS WANTED

**Cardiovascular Pharmacologist** Ph.D., 1984. Experience with isolated arteries, chronic cannulation preparations, radiotracers, and liquid scintillation counting, plus more. Publications, awards for presentations, and successful grant applications. An innovative problem solver, works well with others. Desires industrial position. No geographical restrictions. Telephone: 904-392-3340. Box 139, SCIENCE. X

**Connective Tissue Biochemist.** Ph.D. Extensive experience in collagen types, proteoglycans, and other extracellular matrix macromolecules. Preparative, analytical, and HPLC methods. Publications. Box 146, SCIENCE. X

**Environmental Toxicology-Risk Assessment/Applied Statistics.** Ph.D. in biochemical and physiological phyco/aquatic biology seeks research/administrative position in industry, academia, consulting firm, or government. Extensive experience in applied univariate-multivariate statistics/experimental design using mainframe/micro computer applications. Experienced in analytical chemistry, biochemistry, microscopy, and cell culturing techniques. Skilled in scientific computer programming, research planning, problem-solving, and technical writing. Publications. Box 148, SCIENCE. 7/5, 12

**Ph.D.-M.D. Immunologist/Biotechnologist.** Ten years of industrial research management and hands-on experience in vitro diagnostic products development, including start-up, R&D, field testing, and technical support marketing. Areas of interest: immunology, microbiology, clinical chemistry. Seeking challenging position in industry. Telephone: 201-391-2526. X

**Insect Toxicologist** with strong background in maintaining healthy test colonies and establishing dosage-response relationships seeks position with industrial research and development program. Also possesses strong communication skills, experience with metabolic pathways of chemical insecticides and insect pathogens. Will accept postdoctoral fellowship. Box 128, SCIENCE. X

**M.D. (Pathology Resident), Ph.D. in Biophysics.** seeks job in clinical genetic toxicology offering a chance to monitor human mutagen exposure. Prefers concurrent duties in anatomic and/or clinical pathology. Extensive experience in mutagenesis assays. Wisconsin and California medical licenses. Able to start July 1986. References and curriculum vitae available. Dr. Busch, UWHC Department of Pathology, 600 Highland Avenue, Madison, Wis. 53792. X

**Plant Chemosystematist.** Ph.D. 1985. M.S. in toxicology 1974. Skilled in GC-MS, HPLC, TLC, UV-Vis. Research interests in angiosperm phylogeny, drug/toxin molecular communities, and prediction of drug sources. Publications. Teaching experience. Seeking postdoctoral or permanent position in academia, industry, or government. Dr. Robert B. Jeppson, 14 West 400 North, Orem, Utah 84057. 7/5, 12

**Plant Pathologist.** M.S. and Ph.D. in plant pathology/plant genetics, Wisconsin, 1984, with postdoctoral experience in plant molecular biology, seeks industry or government position that ultimately will lead to administration. Wants position where working knowledge of biotechnology or agricultural research can be implemented into making business or regulatory decisions. Excellent oral and written communication skills. Works well with people. Box 147, SCIENCE. 7/5, 12

## POSITIONS OPEN

### ANATOMY POSITION

Assistant professor of anatomy. Tenure track. Medical gross anatomist. Experience in teaching modern gross anatomy is required with a secondary background in neuroscience or histology. An earned doctorate in anatomy is required with postdoctoral experience favored. The individual is expected to develop and sustain a fundable, independent research program. Excellent ultrastructural and research facilities are available. Applicants should send statement of interest, curriculum vitae, and three letters of recommendation to: Dr. Alvin Levine, Assistant Dean and Director, Terre Haute Center for Medical Education, Indiana University School of Medicine, 135 Holmstedt Hall, Terre Haute, Indiana 47809. Indiana University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**TEXAS—ADMINISTRATIVE POSITION—GRADUATE STUDIES AND RESEARCH.** Assistant Dean for Graduate Studies and Research with faculty rank of associate professor or professor. Doctorate degree required; combined D.D.S./Ph.D. degrees preferred. Responsibilities include administration and coordination of advanced education programs in the biomedical sciences and dental specialties; and promotion of faculty and student research. Established record in research and research funding required. Tenure, rank, and salary based on qualifications. Send curriculum vitae, along with names and addresses of three references, to: Dr. T. W. Gage, Chairman, Search Committee for Assistant Dean, 3302 Gaston Avenue, Dallas, Texas 75246. Equal Opportunity/Affirmative Action Employer.

**AQUATIC BIOLOGY/ENTOMOLOGY—**Contingent upon funding, the Appalachian Environmental Laboratory (CEES) of the University of Maryland has a 1-year position for a candidate (B.S. or M.S. degree in biology) with significant skills in the identification of aquatic insects and benthic organisms. Qualified applicants must submit a résumé and names, addresses, and telephone numbers of three references by 19 July 1985 to: Dr. R. P. Morgan, AEL-UMCEES, Gunter Hall, Frostburg, Md. 21532. The University of Maryland is an Equal Opportunity/Affirmative Action Employer.

**Yale University.** The Department of Chemistry invites applications for two tenure-track ASSISTANT PROFESSOR positions, effective academic year 1986. We seek outstanding individuals in any field of chemistry. Applications from those whose research interests overlap with the areas of organic or inorganic chemistry and the biological sciences are particularly welcome. Applicants should send curriculum vitae, a statement of research plans, and should arrange for the submission of three letters of recommendation. All materials should be received by 1 December 1985. Send application to: Professor S. L. Schreiber, Chairman, Search Committee, Department of Chemistry, Yale University, P.O. Box 6666, New Haven, Conn. 06511. Yale University is an Equal Opportunity/Affirmative Action Employer.

Applications are invited for a position in **NEUROPHYSIOLOGY** at the ASSISTANT PROFESSOR level in the Department of Physiology at the University of Manitoba Faculty of Medicine. Candidates should have a Ph.D. or equivalent, with two or more years of postdoctoral training. Preference will be given to individuals with experience and a continuing interest in electrophysiological analysis of neural networks and/or neurotransmitter actions using in vitro or in vivo systems. Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be forwarded to: Dr. Henry G. Friesen, Professor and Head, Department of Physiology, The University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 0W3. Deadline for receipt of applications is 1 September 1985. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

### ASSISTANT/ASSOCIATE PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, University of Kentucky, College of Medicine, invites applications for two tenure-track positions at the level of assistant or associate professor. Candidates must have an M.D. or Ph.D. degree and have demonstrated ability to conduct independent research. Primary responsibilities are establishment of a funded, independent research program and teaching of medical and graduate students. Applications are encouraged from individuals interested in toxicology, drug metabolism, chemical carcinogenesis, as well as neuropsychopharmacology and cardiovascular pharmacology. Excellent opportunities are available for interaction with the Tobacco and Health Research Institute, the Lucille P. Markey Cancer Center, and the Sanders-Brown Center on Aging. Interested individuals should send an outline of future research plans, curriculum vitae, bibliography, and the names of individuals who may be contacted as references to:

Mary Vore, Ph.D.  
Search Committee  
Department of Pharmacology  
University of Kentucky  
College of Medicine  
Lexington, Ky. 40536

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

## Structural Molecular Biologist

### BROOKHAVEN NATIONAL LABORATORY

A staff position is open in the Biology Department for a structural molecular biologist with experience in the field of small angle X-ray scattering. This is an opportunity for a scientist to develop an independent program at the small angle scattering station of the National Synchrotron Light Source (NSLS). The scientist will also be responsible for the operation and development of the small angle scattering facility.

Candidates should submit a curriculum vitae that includes a list of publications and the names of three references, together with a statement of research interests, to: H.Z. Konratuk, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal Opportunity Employer m/f.

 **BROOKHAVEN  
NATIONAL LABORATORY**  
ASSOCIATED UNIVERSITIES INC

## Associate Director Drug Delivery Research

Smith Kline & French Laboratories is establishing a multi-disciplinary research team of Ph.D. scientists to investigate fundamental approaches to the delivery of drugs. We are currently seeking an individual to lead the Physiochemistry Section and serve as an Associate Director in the Drug Delivery Department. Research activities emanating from this Section should provide a mechanistic understanding of solute transport to membrane surfaces and through biological membranes leading to development of strategies to control the luminal flux of drugs.

Specific areas of research may include: (a) mass transport of drugs across selected biological membranes, (b) characterization of those membranes and associated luminal contents with respect to biochemical activity and physiological factors, (c) carrying out mass transport studies using pharmacokinetic principles to define potential routes of administration, (d) developing carrier-based systems for targeting and/or protecting macromolecular drugs, and (e) defining interactions of polymeric-based delivery systems and/or carriers at biomembranes. Initial emphasis is to be placed on delivery of peptides and proteins.

The candidate should be a nationally or internationally recognized scholar with an established record of significant scientific achievement in areas impacting on drug delivery.

Presently located in Philadelphia, the Department will be relocating to a new state-of-the-art Research and Development facility near Valley Forge. We offer an excellent salary, benefits and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to George P. Kissell, Jr., Manager of Personnel Relations, Smith Kline & French Laboratories, 1576 Spring Garden St., Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

  
A SmithKline Beckman Company

## HEAD, CHEMISTRY DIVISION

The Office of Naval Research seeks an outstanding chemist to serve in this Federal Senior Executive Service (SES) position. Salary range is \$61,296 to \$68,700, depending on qualifications. (In addition to salary, career SES appointees are eligible to compete for performance awards and bonuses.)

The Head, Chemistry Division supervises senior Scientific Officers plus support personnel and is responsible for providing leadership, direction, and coordination for the \$16M Contract Research Program in chemical sciences. Duties include program planning, program execution, assessment of program accomplishments, and exploitation of results in applications to Navy technology. Scientific and

technical areas of concern include, but are not limited to, physical chemistry (electrochemistry, surface chemistry, and photochemistry), solid state chemistry (especially that related to electronics and optics), synthesis (organic, inorganic, and organometallic), and chemical materials (with emphasis on polymers for structural and electronics applications).

Candidates should possess a Ph.D. in chemistry, or equivalent, and significant research accomplishments in one or more of the above disciplinary areas.

Interested persons should submit a resume or Standard Form SF-171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to:

## OFFICE OF NAVAL RESEARCH

Civilian Personnel Division, Code 791SC  
Attn: Announcement #85-41(S)  
800 North Quincy Street  
Arlington, VA 22217-5000

Applications will be accepted through 6 September 1985 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

U.S. CITIZENSHIP REQUIRED

AN EQUAL OPPORTUNITY EMPLOYER

## POSITIONS OPEN

**ANATOMIST.** Gross anatomy. The Department of Preclinical Education is seeking applicants for a tenure-track position available immediately at the assistant/associate professor level. Primary responsibility will be teaching human gross anatomy. Earned doctorate in anatomical sciences required. Preference will be given to individuals having prior teaching experience in gross anatomy. Facilities, resources, and time are available for research. The college is a free-standing, state-supported institution located near downtown Tulsa. Send curriculum vitae and three letters of reference by 15 August 1985 to: **James F. Taylor, Ph.D., Associate Professor of Anatomy, The Oklahoma College of Osteopathic Medicine and Surgery, 1111 West 17 Street, Tulsa, Oklahoma 74107. An Affirmative Action/Equal Opportunity Employer.**

University of California, Riverside. **ASSISTANT RESEARCH PHYSIOLOGIST** position available from July 1985. Candidates should have Ph.D. in zoology/physiology with at least 3 years of postdoctoral training which should include research in single cell electrophysiology and characterization of membrane ion transport employing intracellular conventional and ion-sensitive microelectrode techniques. Applicant should have at least 1 year of practical experience in isolation and perfusion of epithelial tubules (for example, renal tubules). Additional experience in biochemical studies is advantageous. Evidence of ability to conduct independent research is required. Salary: \$28,000 per annum for at least a period of 5 years with the possibility of extension by mutual agreement. Send curriculum vitae and two letters of recommendation to: **Dr. P. M. Quinton, Division of Biomedical Sciences, University of California, Riverside, Calif. 92521-0121. Equal Opportunity/Affirmative Action Employer.**

**BASIC SCIENTIST.** Assistant professor of surgery, Division of Urologic Surgery at the University of Cincinnati, College of Medicine. Possible secondary appointment in appropriate basic science discipline. Candidates should have a Ph.D. degree, postdoctoral experience, and demonstrated ability in research (publications in peer-reviewed journals and research grants). Areas of research might include biochemistry, cell/molecular biology, or genetics. An interest in cancer is helpful; an interest in working closely with clinicians and clinically relevant problems in urologic surgery is a must. Send a letter of interest, curriculum vitae, and names of three references by 15 September 1985 to: **Dr. H. Bruce Bosmann, Chairman, CSRP Search Committee, University of Cincinnati College of Medicine, ML Number 555, Cincinnati, Ohio 45267-0555. The University of Cincinnati is an Equal Opportunity Educator and Employer.**

## RESEARCH CENTER DIRECTOR

Applications and nominations are invited for the position of director, Center for Bio-Organic Studies of the University of New Orleans (UNO). The Center is a nonprofit research and public service institute which conducts multidisciplinary research focusing on environmental and health-related studies. It is located on the UNO campus and occupies new facilities which were designed to meet the unique laboratory requirements for state-of-the-art chemical and toxicological studies.

The director will be responsible for overall management and direction of the Center, obtaining research support from governmental and nongovernmental organizations, providing guidance in expansion into appropriate new areas of research, representing the Center at national and international meetings, and performing research at the Center. This position requires a Ph.D. in one of the sciences with experience in environmental chemistry, trace organic analysis, high-resolution chromatography, and/or mass spectrometry; a record of distinguished leadership; outstanding research accomplishments; and an international reputation. Experience and background in program planning, development, implementation, administration, and evaluation are required. The incumbent should also have a record of obtaining research funds and have familiarity with organizations that provide these research funds. Salary is negotiable. Forward application materials to:

**Dr. Louis A. Fernandez  
Chairman, Search Committee  
College of Sciences  
University of New Orleans  
New Orleans, La. 70148**

UNO is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR (Molecular and Cell Biology)

The Biology Programs of The University of Texas at Dallas invite applications for two tenure-track positions, one at the assistant professor level and one at the assistant or associate professor level, beginning 1 September 1986. While the area of specialization is open, applicants should be actively engaged in research **IN THE BROAD AREA OF MOLECULAR OR CELLULAR BIOLOGY**, have at least 2 years of postdoctoral experience and show evidence of independent, productive work sufficient to compete for federal grant support. The university has a small (60 majors) upper-level undergraduate biology program and a graduate (60 M.S./Ph.D.) biology program, with extensive extramural supported research in molecular and cellular biology. Successful candidates will be expected to participate in teaching of molecular biology (in biochemistry/biophysics or molecular genetics), supervise graduate student research, develop a vigorous and independent research program, and interact with the current faculty. Send curriculum vitae (indication of sex and ethnicity for affirmative action statistical purposes is requested but not required), a short description of research plans, and names of three or more references to:

**Academic Search Number 271  
The University of Texas at Dallas  
P.O. Box 830688  
Richardson, Texas 75083-0688**

Applications should be received by 15 October 1985. *The University of Texas at Dallas is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, Michigan State University (MSU), has an opening for an assistant professor position (tenure track). This position involves two primary responsibilities. One will be teaching in a one quarter, undergraduate, lecture and laboratory course in comparative (nonmammalian, system level) physiology. General involvement in the department's undergraduate program, including advising of departmental majors, is also expected. Experience in undergraduate teaching will be an asset. The second responsibility is to initiate and maintain an active, independent research program in a contemporary area of physiology. Preference will be given to the areas of angiogenesis, cellular and molecular biology of neuroendocrine action, cellular aspects of nerve growth, and the role of the cytoskeleton in physiological function. Applicants should have at least 2 years of postdoctoral research experience. Please submit curriculum vitae, including reprints, preprints, and a statement of research and teaching objectives, and the names and addresses of three referees no later than 1 September 1985 to: **Dr. Steven Heidemann, Department of Physiology, Michigan State University, East Lansing, Mich. 48824-1101.**

MSU is an Affirmative Action/Equal Opportunity Institution.

**BIOCHEMIST/Ph.D. POSITION WITH FACULTY RANK**—Cardiac Laboratory performs research in experimental and clinical ischemic heart disease, especially directed toward prostaglandins, leukotrienes, free radicals, platelet function. Send résumé and names of three references to: **Hiltrud Mueller, M.D., Associate Director, Cardiology, Montefiore Hospital, Albert Einstein College Medicine, 111 East 210 Street, Bronx, N.Y. 10467, or telephone 212-920-6747.**

The Department of Zoology, University of Alberta, has a position available in the area of **BOREAL ECOLOGY**, preferably with interests involving research on mammals. The Department of Zoology has an active group with interests in northern ecology. Applicants should minimally have a Ph.D. degree or equivalent and postdoctoral experience, and must be highly qualified investigators capable of a vigorous, independent research program. The position will be tenure track at the level of assistant professor (1984-1985 salary range: \$29,720 to \$42,920), and will commence 1 January or 1 July 1986. Applicants should forward their curriculum vitae with names of three references to: **Dr. R. E. Peter, Chairman, Department of Zoology, University of Alberta, Edmonton, Alberta Canada, T6G 2E9, by 31 October 1985.**

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

## POSITIONS OPEN

### Minneapolis/St. Paul ASSOCIATE SCIENTIST

Position is available with the biophysics groups (Professors E. Münck and K. Ugurbil) at the University of Minnesota, Gray Freshwater Biological Institute. Appointment will be at the level of associate scientist (salary range: \$23,112 to \$34,416). Duties will include maintenance and development of instrumentation (for NMR, EPR, Mössbauer spectroscopy) and computer programming and interfacing. Participation in research is encouraged. Bachelor's degree in either engineering, physics, or chemistry is required. Experience in electronics, in particular rf electronics, is desired. The position has long-term support. Applicants should submit curriculum vitae and names of three references to: **Dr. Ugurbil and Münck, Gray Freshwater Biological Institute, University of Minnesota, Navarre, Minnesota 55392.** Applications should be received by 2 August 1985.

### BIOCHEMIST-COMPLEX CARBOHYDRATES

The U.S. Department of Agriculture (USDA)/ARS, Northern Regional Research Center, is seeking a research associate with knowledge and experience in the biochemistry and biophysics of complex extracellular polysaccharides and/or glycoproteins to study fundamental processes involved in surface interactions between amylolytic, cellulolytic, and/or lignolytic microorganisms and insoluble substrates. Areas of interest include substrate recognition and attachment phenomena and related intracellular metabolic events leading to substrate bioconversion. Experience in isolation and characterization of complex carbohydrate polymers is desirable.

The USDA, Northern Regional Research Center, is a large, well-equipped research facility housing more than 100 research scientists and postdoctoral associates engaged in a variety of biochemical, chemical, and biotechnology-related studies. The position is available immediately. Starting salary: \$26,381. U.S. citizenship required. Applicants should submit résumé, list of publications, and names of three references to: **Dr. J. Michael Gould, USDA/ARS, Northern Regional Research Center, 1815 North University Street, Peoria, Ill. 61604. USDA is an Equal Opportunity Employer.**

### BIOCHEMISTRY

Applications are invited for a senior academic rank position in biochemistry available September 1985. Candidates must have a Ph.D. or equivalent degree.

The preferred candidate will have broad training in general biochemistry, will be an experienced teacher of medical biochemistry, and will have a record of funded research. Teaching expertise in acid-base and fluid/electrolyte regulation is most desirable. The prospect of continued success in publication and grant funding will be an important consideration. Candidates who do not meet all of the above criteria are still encouraged to apply.

Send curriculum vitae and names of three references to: **William J. Dyche, Ph.D., Associate Dean of Pre-Clinical Affairs, University of Osteopathic Medicine and Health Sciences, 3200 Grand Avenue, Des Moines, Iowa 50312. Equal Opportunity Employer.**

### CELL BIOLOGIST

The Cardiovascular Research Center associated with a major city hospital is seeking a nationally recognized scientist in the field of cell biology. A strong background in cellular lipid metabolism, action of growth factors, or leukocyte activation is essential, particularly as related to the initial etiology and development of atherosclerosis. Such an investigator would participate in a multidisciplinary approach to the early detection and/or prevention of atherosclerotic vascular changes. Applicants must hold a Ph.D. and/or M.D. degree. Salary commensurate with qualifications. Please send a statement of research interests and complete curriculum vitae to: **Box 131, SCIENCE.**

### ENVIRONMENTAL TOXICOLOGIST— ANALYTICAL CHEMIST

Research assistant professor. To detect, identify, and quantify carcinogens in ambient atmosphere. Ph.D. in area of analytical chemistry required. GC/MS experience desirable. To take active role in program and in obtaining grants. Nontenure position open 1 September. Salary commensurate with experience. Send curriculum vitae and three letters of reference to: **Dr. John R. Oppenheimer, Director, Environmental Science Masters Program, The College of Staten Island, City University of New York, 130 Stuyvesant Place, Staten Island, N.Y. 10301.**



## RESEARCH SCIENTISTS

California Biotechnology Inc., an established biotechnology company, is seeking scientists at the Ph.D. and M.S./B.S. levels to participate in exciting research programs. Qualified applicants should have experience in one of the following areas:

**Protein and peptide chemistry** with broad expertise in the purification, characterization, structural analysis, or synthesis of novel proteins and peptides.

**Monoclonal antibody production** with experience in both *in vivo* and *in vitro* techniques of hybridoma production.

**Molecular pharmacology** to study ligand-receptor interactions and coupling of receptors with intracellular mediators of action.

**Molecular biology** with experience in recombinant DNA techniques and the expression of foreign genes in bacteria, yeast, or mammalian cells.

We offer a comprehensive benefits package and competitive salaries. For consideration, please submit a curriculum vitae, a list of publications and the names of three references to:

**Dr. John Shine**  
Director of Research  
California Biotechnology Inc.  
2450 Bayshore Frontage Road  
Mountain View, CA 94043



## CANCER CONTROL SCIENCE ASSOCIATES PROGRAM

The Division of Cancer Prevention and Control, National Cancer Institute is accepting applications for the Cancer Control Science Associates Program. This three-year program is designed to attract qualified individuals into the field of cancer control research. Depending on availability of funding and/or personnel slots, up to five Science Associates will be eligible for a July 6, 1986 entry into the program. Requirements for the three-year appointment are: 1) M.D., D.O., or accredited doctoral degree in an allied or public health profession, biomedical, behavioral, or social science, or equivalent; 2) A minimum of one year of postdoctoral training or experience at the time of application, which included a familiarity with the basic fundamentals of scientific research methodology; 3) academic-professional excellence supported by official transcripts and four letters of reference; and 4) U.S. citizenship or permanent residency status at the time of application. Current salaries for the first year for an M.D./D.O. or a Ph.D., respectively, are \$31,044 or \$26,381 per annum, plus normal Federal employment benefits. To obtain details, **SEND A POSTCARD ONLY** with your printed name and home mailing address to: Ms. Nancy E. Garner, Program Coordinator, CCSAP, NIH/NCI/DCPC/CCAB, Blair Building, Room 4A01, Bethesda, MD 20205-4200, or call (301) 427-8788. The National Institutes of Health is an Equal Opportunity Employer.

DEADLINE FOR RECEIPT OF APPLICATIONS IS NOVEMBER 22, 1985

## Sr. Development Officer

### College Of Science THE PENNSYLVANIA STATE UNIVERSITY

The University is seeking an individual to be responsible to the Executive Director of University Development for major fund raising programs and related activities for the College of Science.

Will assist in identifying, cultivating and soliciting alumni and other individuals capable of extending financial support. Assist in the development of fund raising objectives, coordinating appeals, developing proposals and overseeing gift acknowledgement and reporting.

Bachelor's Degree or equivalent in Marketing, Communications or a related field plus 3-4 years of effective experience in fund raising in a non-profit environment with evidence of skill in verbal and written communications and an aptitude for science. Travel is essential.

Send application, resume and salary requirement to:

**Employment Division**  
117 Willard Bldg., Box SM-88  
University Park, PA 16802  
Application D/L, July 15, 1985  
or until position has been filled.

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Affirmative Action Employer

# RESEARCH SCIENTISTS

Expanding needs in research and development at Johnson Wax have created the following challenging and stimulating opportunities:

### SCIENTIST OR SENIOR SCIENTIST - HAIR CARE FORMULATION

For individuals capable of independent exploratory research in hair care and hair care formulations. Applicants should have a Ph.D. or M.S./B.S. with appropriate experience in formulation of personal care products. Knowledge of surface science and/or polymer chemistry will be beneficial.

### SCIENTIST OR SENIOR SCIENTIST - SKIN CARE FORMULATION

For aggressive individuals with formulation experience interested in developing new approaches to products for the skin. Applicants should have a Ph.D. or M.S./B.S. with appropriate experience in formulation of personal care products. Job title and responsibilities will be based on experience of the successful applicant. Experience in relevant skin-related pharmaceutical research will be an asset.

### SCIENTIST OR SENIOR SCIENTIST - BIOPHYSICAL STUDIES OF SKIN AND HAIR

Positions are available for B.S. and Ph.D. level scientists who are prepared to take on challenging research concerning physical properties of skin and hair. Interest in carrying out basic and applied research in viscoelastic properties, image analysis and skin biophysics is essential. Qualified candidates should be willing to integrate their research with ongoing efforts in skin pharmacology, cellular biology and product development.

These opportunities also require an ability to interface with all levels of R&D and above average oral and written communication skills.

Johnson Wax is a multinational chemical specialties company located in a pleasant medium-sized community between Milwaukee and Chicago.

We offer a competitive salary and an excellent benefits program, including cash deferred and profit sharing.

Please send a detailed resume in confidence to: **R.H. Kastler, Personnel Manager - Racine, S.C. JOHNSON & SON, INC., 1525 Howe Street, Racine, WI 53403.**



An Equal Opportunity Employer M/F

## POSITIONS OPEN

### CARCINOGENESIS The University of Texas System Cancer Center (UTSCC) Science Park-Research Division

Applications are invited for an assistant professor level faculty position in a multidisciplinary research laboratory studying cellular and molecular mechanisms of carcinogenesis. Research programs at Science Park, located in Buescher State Park 40 miles east of Austin, include somatic cell genetics, DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, mechanisms of lymphomagenesis, normal and tumor cell differentiation, biochemical genetics, and growth factors. Candidates should have an independent research program that would interface with one or more of the above areas as well as a record of peer-reviewed grants and research publications. Preference will be given to individuals who have an active program on the cellular and molecular mechanism(s) by which dietary fat influences the induction of cancer in the mammary gland, large bowel, or pancreas. The Science Park provides competitive salary and benefits, a stimulating research environment, postdoctoral and graduate students, and opportunities for interaction with faculty at nearby institutions, including the University of Texas Health Science Center in Houston, University of Texas at Austin, and Texas A&M University. Interested applicants should send complete curriculum vitae, the names of three references, and a brief statement of research interests to: **Dr. Thomas J. Slaga, Director, UTSCC, Science Park-Research Division, P.O. Box 389, Smithville, Tex. 78957; Telephone: 512-237-2403. An Equal Opportunity/Affirmative Action Employer.**

### TENURE-TRACK POSITION CELL AND DEVELOPMENTAL BIOLOGY HAVERFORD COLLEGE

Haverford College invites applicants for a tenure-track position as assistant professor of biology starting fall 1986. Applicants should have a Ph.D., postdoctoral experience, and active research interests in the cell biological basis of development. Familiarity with modern optical methods is desirable.

Haverford is an undergraduate institution placing great emphasis on both high-quality teaching and research, which are complementary parts of the Biology Department's molecular and cellular "biology core curriculum." The appointee will teach a lecture course and advanced seminar in his or her area of expertise; and a portion of a laboratory course involving electron microscopy. He or she will also work closely with 4 or 5 students in a senior-year student honors research course. The appointee's research should be directed toward providing answers at the molecular level to a problem in his/her area of research expertise. *Haverford College is an Affirmative Action/Equal Opportunity Employer.*

Applicants should send curriculum vitae, a statement of research interests and career goals, and the names of three recommenders by 31 October 1985 to: **Dr. Christopher Goff, Department of Biology, Haverford College, Haverford, Pa. 19041.**

### CHAIRMAN, DEPARTMENT OF PATHOLOGY

The University of Colorado, School of Medicine, is initiating a search for a chairman of the Department of Pathology, including anatomic, clinical, and experimental pathology. *The University of Colorado Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.* The deadline for the acceptance of applications will be 1 November 1985. Please submit your curriculum vitae and bibliography to: **Alden H. Harken, M.D., Chairman, Pathology Search Committee, Professor and Chairman, Department of Surgery (C-305), University of Colorado, School of Medicine, 4200 East 9 Avenue, Denver, Colo. 80262.**

### CLINICAL NUTRITION POSITION UNIVERSITY OF CHICAGO CLINICAL NUTRITION RESEARCH CENTER

Seeking Ph.D. at postdoctoral or instructor level with experience in human nutrition investigation. Areas of special interest include body composition or trace metal physiology. Responsibilities include research coordination and protocol development, as well as independent research. Send curriculum vitae and a statement of career and research interest to:

**Richard J. Wood, Ph.D.  
University of Chicago  
Clinical Nutrition Research Center  
5841 South Maryland Avenue, Box 223  
Chicago, Ill. 60637**

## POSITIONS OPEN

**CHEMICAL ENGINEERING/MICHIGAN BIOTECHNICAL INSTITUTE.** Assistant/associate/full professor (full-year, full-time, tenure system). Biochemical engineering positions and distinguished research professorship. The Chemical Engineering Department and the Michigan Biotechnology Institute have joint tenure-system positions open. Rank, salary, and incentives commensurate with qualifications. Applicants should have demonstrated ability in one or more of the following areas: bioreactor design and scale-up; product separation and recovery from cell culture broths; sensors, controls, and computer interfacing of biological processes; and renewable resource technology. Strong commitment to applied research plus teaching limited to graduate training in biotechnology expected. Applicants with outstanding credentials and an active research program are encouraged to apply. The positions offer the excitement of sharing in both the understanding and rewards of developing new technology. *Qualified women and minorities are encouraged to apply. Apply in writing to:*

**Dr. Donald K. Anderson, Chairperson  
Biotechnology Search and Selection Committee  
Michigan State University  
173 Engineering Building  
East Lansing, Michigan 48824-1226**

Applications are requested by 1 September 1985, but will be accepted as long as necessary to fill the positions.

### UNIVERSITY OF FLORIDA FLORIDA STATE MUSEUM (FSM) DIRECTOR

Applications are invited for the directorship of one of the largest and most active university museums of natural history. The FSM emphasizes research and exhibits on the natural and cultural history of Florida and Latin America.

The FSM faculty consists of 24 salaried curators who also hold titular appointments in related teaching departments. Physically the museum is a modern structure central to the campus with one floor for each of its three departments, Natural Sciences, Anthropology, and Interpretations. The museum serves dual functions as the Florida State Museum, with permanent and traveling exhibits and a statewide membership program, and as a university museum, with strong research and educational missions.

The directorship is equivalent to the rank of dean within the University of Florida. Applicants should have appropriate experience and vision to plan the museum's long-range growth; to develop a statewide constituency and fund-raising campaign; to supervise the research and public education programs of the museum; and to maintain liaison with officers and lawmakers in state government.

The position opens as of January 1986. The salary is commensurate with qualifications and experience and competitive with that of other major museums. Applications naming three references should be postmarked no later than 31 October 1985 to: **Dr. David Webb, Florida State Museum, Gainesville, Fla. 32611.** The search will be conducted under Florida's "Government in the Sunshine" Law. *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION

The Department of Biochemistry of the Kirksville College of Osteopathic Medicine invites applications for a full-time, tenure-track position at the rank of assistant professor. The department is currently composed of nine Ph.D. members and is committed to excellence in both education and research. Candidates must have a Ph.D. in biochemistry plus at least 2 years of postdoctoral experience and permanent U.S. residency. Preference will be given to individuals with teaching experience at the medical school level and with an established record of research productivity. Teaching responsibilities will include full participation in the lecture, conference, and laboratory sections of two courses in biochemistry and one in nutrition. Research responsibilities will include maintaining a productive research program and securing the extramural funding to support this program. Although candidates in all fields of biochemistry can be considered, a background in nutrition is desirable. Applications must be received by 30 August 1985. Applicants should submit a résumé, copies of three recent publications, an outline of their proposed research program, and the names and addresses of at least three references to: **Dr. Richard J. Cenedella, Chairman, Department of Biochemistry, Kirksville College of Osteopathic Medicine, 800 West Jefferson, Kirksville, Mo. 63501.**

*The Kirksville College of Osteopathic Medicine is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ECOLOGICAL MODELER.** Postdoctoral for scientist with demonstrated talent at simulation modeling of nutrient cycling in ecosystems. Research focus is process dynamics in the grazing ecosystem of the Serengeti region of East Africa. Goals will be to model soil processes, decomposition, mineralization, microbial biomass, and nutrient consumption and spatial concentration by large grazing mammals, and to couple that modeling with an existing primary productivity model [*Ecol. Modelling*, 23, 101-134, *et seq.*]. Field experience likely, so background involving validation under real conditions desirable. Position available immediately or as suitable to needs of best qualified applicant, consistent with overall research objectives. Send curriculum vitae, a statement of special competencies and interests, and have three letters of reference sent to: **Professor S. J. McNaughton, Biological Research Laboratories, Syracuse University, 130 College Place, Syracuse, N.Y. 13210.**

**EUKARYOTIC MOLECULAR BIOLOGIST.** The University of Massachusetts Medical School announces the availability of a tenure-track position (at any level) for eukaryotic molecular biologist. Applicants should send curriculum vitae, a short statement of proposed or current research, and the names of three references to: **Search Committee, Department of Molecular Genetics and Microbiology, 55 Lake Avenue North, Worcester, Mass. 01605.** *The University of Massachusetts Medical Center is an Equal Opportunity/Affirmative Action Employer. Minority candidates and women are especially encouraged to apply.*

**FACULTY POSITION, HARVARD MEDICAL SCHOOL,** to begin in 1985, for biochemist-microbiologist with background in bacterial pathogenesis and interest in exploring major problem in protein secretion. Write to: **N. Stein, Administrator, Channing Laboratory, 180 Longwood Avenue, Boston, Mass. 02115.**

### FACULTY POSITION IN CHEMICAL OCEANOGRAPHY

The School of Oceanography, University of Washington, invites applications for a tenure-track position at the assistant professor level, to begin in academic year 1985-1986. (Applications from persons at a more senior level may be considered.) The successful candidate will be expected to teach undergraduate and graduate courses and to develop a strong research program in chemical oceanography. The School of Oceanography seeks additional strength in the utilization of chemical or isotope tracers for the study of carbon cycling, ocean circulation, and hydrothermal processes. Chemical oceanographers with expertise in these areas are encouraged to apply.

The position carries 6 months of tenurable state funding. Applicants should submit curriculum vitae, pertinent reprints, and names of four references by 15 September 1985 to: **Dr. Brian T. R. Lewis, Director, School of Oceanography, WB-10, University of Washington, Seattle, Wash. 98195. Telephone: 206-543-6487.** Oceanography ad number 853.

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

**FACULTY POSITION IN CANCER CYTOGENETICS.** The Department of Pathology, Medical College of Georgia, invites applications for a junior faculty position, instructor or assistant professor. The candidate should have a Ph.D. with experience in the area of cytogenetics. Demonstrated interests in pathology/pathobiology; cancer biology and/or molecular genetics and in flow cytometry would be desirable. The selected candidate would be expected to develop independent and collaborative programs in cancer cytogenetics. Applicants should apply to: **Dr. R. N. Rao, Chief of Anatomic Pathology, Department of Pathology, Medical College of Georgia, Augusta, Ga. 30912.** *Equal Opportunity Employer/ Affirmative Action Program.* J2939.

**FACULTY POSITION** for Ph.D. with experience in tissue culture techniques and interest in malignancy and/or neurosciences to run neuro-oncology laboratory investigating biology of human malignancy brain tumors. Successful applicant will interact with very strong clinical neuro-oncology program, providing ample specimens, and with established laboratories of cell biology, cytogenetics, and molecular biology. Send curriculum vitae and names of three references to: **Dr. Richard S. Kaplan, M.D., FACP, University of Maryland Cancer Center, 22 South Greene Street, Baltimore, Maryland 21201.**

## Agricultural Biotechnology

Shell Development Company, located in Modesto, California, is currently seeking scientists with significant records of achievement and an interest in applying their skills in the area of agronomic research.

These positions are available for outstanding Ph.D. level scientists with training in the following areas:

### **Molecular Biology of Higher Plants**

This position requires a Molecular Biologist with experience in the study of structure and regulation of plant nuclear genes.

### **Plant Somatic Cell Genetics**

The Plant Geneticist in this position will have expertise in plant cells and tissue culture and regeneration of important crop species.

The selected individuals will join an Agricultural Biotechnology Department newly established to complement a strong team of innovative scientists with a record of technical accomplishment and commercial success in agricultural research.

Shell Development Company's location in Modesto, California offers an outstanding research environment, a reasonable cost of living, and competitive salaries and benefits.

Interested applicants should send a resume, in confidence, to: **Manager, Employee Relations, Shell Development Company, Biological Sciences Research Center, P.O. Box 4248, Modesto, CA 95352.**

Applicants should be a U.S. Citizen or have a permanent resident visa.

An Equal Opportunity Employer M/F.



**Shell**

## POSTDOCTORAL POSITION

**POSTDOCTORAL POSITION IN AUDITORY ELECTROPHYSIOLOGY** is available at the Los Alamos National Laboratory. Participate in studies of the encoding of speech sounds in the auditory system. Candidates with training in neurophysiology, experimental psychology, speech science, or other related fields are encouraged to apply. We offer a comprehensive benefits package with a starting salary range of \$27,900 to \$29,376.

Interested candidates should send a copy of their resume to Dr. Donal G. Sinex, Los Alamos National Laboratory, LS-DO, MS M881, Los Alamos, New Mexico 87545, or call Dr. Sinex at (505) 667-1623.

To formally apply, please send your resume, bibliography, three letters of reference and graduate and undergraduate transcripts to:

Carol M. Rich  
DIV 85-DH

Personnel Administration Division  
Los Alamos National Laboratory  
Los Alamos, New Mexico 87545  
an Affirmative Action/Equal Opportunity Employer  
U.S. CITIZENSHIP REQUIRED  
University of California



## U.S. ARMY MEDICAL RESEARCH & DEVELOPMENT COMMAND

### BROAD AGENCY ANNOUNCEMENT

Basic research proposals are solicited in five major program areas in support of the medical research activities of the U.S. Army: (i) Military Disease Hazards; (ii) Combat Casualty Care; (iii) Army Systems Hazards; (iv) Combat Dentistry (Maxillofacial Injury, Dental Disease and Materials); and (v) Medical Chemical Defense.

Program booklets are available, by written request only, from Commander, U.S. Army Medical Research Acquisition Activity, ATTN: SGRD-RMA, Fort Detrick, Frederick, Maryland 21701-5014.

## Research Director

Spinco Division, a world leader in instrument systems which separate, identify, and synthesize biochemical materials, is seeking a highly qualified professional to lead its Research and Applications Department.

Reporting to the Division Manager, the successful candidate will direct the activities of approximately twenty-five professional, technical, and support personnel engaged in new and applied research leading to future laboratory methods and advanced instrument development. This person will be actively involved in the overall development of a strategy to move a project from initiation through engineering refinement, manufacturing, and finally user acceptance.

Success in this position requires a highly motivated individual with excellent leadership skills. Critical analytical ability applicable to the R&D environment will probably be evidenced by a Ph.D. in science or engineering with experience in management.

We offer excellent salary and benefits and an attractive relocation package. For confidential consideration, send your resume, including salary requirements and the names of three references to Dr. M.J. Gordon, Beckman Instruments, Inc., 1050 Page Mill Road, Palo Alto, CA 94304. We are an equal opportunity employer, M/F/H/V.

## BECKMAN

A SmithKline Beckman Company



## THE PENNSYLVANIA STATE UNIVERSITY Dean of the College of Agriculture

The Pennsylvania State University is seeking nominees for the position of dean of the College of Agriculture. The dean serves as principal academic leader and chief executive officer of the College and reports directly to the executive vice president and provost of the University. The dean is responsible for planning, budgeting, implementation, and evaluation of programs of resident instruction, and research, is director of the Agricultural Experiment Station, and director of the Cooperative Extension Service.

The Pennsylvania State University is the land-grant institution in the state with the main campus at University Park and 21 campuses located throughout the Commonwealth of Pennsylvania. The College of Agriculture, a leading college of agriculture in the nation and one of ten colleges at University Park, has an enrollment of 1269 undergraduate students and 357 graduate students. The College has 11 academic departments and a School of Forestry involved in both domestic and international programs. A full-time equivalent faculty and staff, numbering 641 persons, serve at University Park and throughout the state, supported by a fiscal year 1984-1985 budget of \$54 million.

The Search Committee will begin to review résumés on 1 August 1985 and will continue to receive them until a candidate is selected.

Applications and nominations, accompanied by résumés and other supporting material, should be submitted to:

**Dr. Donald Crider, Chairman**  
The Pennsylvania State University  
Ag Search Committee  
201 Old Main, SCI  
University Park, Pennsylvania 16802

*The Pennsylvania State University is an Equal Opportunity/Affirmative Action Employer.*

## VETERINARY PATHOLOGISTS

International Research and Development Corporation (IRDC) has openings for two pathologists. Board-certification plus experience in toxicologic pathology is desired. However, Board-qualified candidates will be considered. Responsibilities include histopathologic evaluation of slides and service as a pathology study monitor for ongoing studies. Ability to analyze data and write reports is essential.

Our pathology division is responsible for clinical and anatomic pathology for our extensive program of toxicological research for the pharmaceutical, agricultural, chemical, and consumer industries as well as governmental agencies.

IRDC is located a few miles from Kalamazoo, Michigan, midway between Chicago and Detroit, an area affording a broad range of urban or rural lifestyles with excellent cultural and recreational opportunities. We offer excellent benefit programs and a starting salary commensurate with experience. Send your résumé to:

**Dr. Robert Dahlgren**  
Director, Division of Pathology  
International Research and  
Development Corporation  
500 North Main Street  
Mattawan, Michigan 49071  
*Equal Opportunity Employer*

## POSITIONS OPEN

The University of Michigan Medical School, Department of Radiology, has on occasion open **FACULTY POSITIONS** within the department and its affiliated hospitals. Physicians filling these positions will take part in the programs of patient care, teaching, and research in the Department of Radiology. They will supervise the activities of house officers and aid in the teaching of house officers and medical students. Qualified applicants must be American Board of Radiology-certified or Board-eligible. Previous training or work experience in an academic institution as well as demonstration of previous academic research and teaching experience are desirable. Academic rank will depend on qualifications and experience. Interested applicants should contact: **William Martel, M.D., Chairman, Department of Radiology, The University of Michigan Medical School, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer.**

**FACULTY POSITIONS** available in all Basic Science Departments (Microbiology, Biochemistry, Physiology, Anatomy, Pharmacology) and Clinical Sciences in a medical/veterinarian/dental school in the West Indies. Competitive tax-free salary based on qualifications and experience. Send curriculum vitae and telephone number where contact can be made to:

**M.S.C.S.**  
980 North Michigan Avenue, Suite 1400  
Chicago, Illinois 60611

### MARINE ECOLOGIST (COMMUNITY STRUCTURE)

The Alabama Marine Environmental Sciences Consortium (MESC) invites applications from individuals with an accomplished and ongoing research program investigating community structure and interactions in the marine environment. This faculty position, commensurate to the associate level, will be housed at MESC's Dauphin Island Sea Lab near Mobile, Alabama.

The successful applicant must have a strong publication and research record that warrants national visibility, and be prepared to teach courses in community structure and ecological data management at the graduate level.

This 12-month position is a legislative budget line available starting 1 October 1985 at a negotiable salary range of \$33,000-plus dependent on demonstrated scholarly activity and national recognition.

Qualified applicants should send curriculum vitae, summary of research interest(s), reprints of recent publications, and the names of three references to:

**Dr. George F. Crozier**  
Executive Director  
Marine Environmental Sciences Consortium  
Dauphin Island Sea Laboratory, Box 369  
Dauphin Island, Alabama 36528

The closing date for this position is 15 August 1985. *MESC is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR BIOLOGIST/BIOCHEMIST

Grant-supported research position for a Ph.D. in biochemistry/cellular-molecular biology to work with an interdisciplinary group interested in hormone action and aging. Experience in gene cloning and/or cell culture is required. Salary and academic title commensurate with qualification and experience. Send résumé and names of three referees to: **Dr. Arun K. Roy, Professor of Biological Sciences, Oakland University, Rochester, Michigan 48063.**

*An Affirmative Action/Equal Opportunity Employer*

**POSTDOCTORAL POSITION** available immediately at the University of California, San Francisco, to study molecular mechanisms underlying the development of tolerance to ethanol using neural cells in culture as a model system. Send curriculum vitae and names of references to: **Dr. Ivan Diamond, Director, Gallo Center, Building 1, Room 101, San Francisco General Hospital, San Francisco, Calif. 94110. An Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### MICROBIOLOGY Assistant Professor Eastern Montana College

A 1-year, fixed-term position as assistant professor is available in microbiology beginning September 1985. Teaching duties include general and health-related microbiology, biochemistry, and general biology. An M.S. in microbiology is required as well as a strong commitment to teaching. Submit letter of application, curriculum vitae, transcripts, and three letters of reference by 19 July 1985 to: **Eastern Montana College, Personnel Office, 1500 North 30 Street, Billings, Mont. 59101-0298. An Affirmative Action/Equal Opportunity Employer.**

### MICROBIOLOGY FACULTY POSITIONS

The Department of Microbiology, University of Kansas Medical School, has several tenure-track openings. Appointment will be made at either the assistant or associate professor level, depending upon experience. At least one position will be for a **MOLECULAR VIROLOGIST**. A second position will be for either a **MOLECULAR VIROLOGIST**, a **MOLECULAR IMMUNOLOGIST** or an individual with research interests in the **MOLECULAR BASIS OF MICROBIAL PATHOGENESIS**. Postdoctoral experience as well as a significant publication record will be required. The successful applicant will be expected to develop a strong research program in his/her area of expertise as well as participate in teaching both medical and graduate courses. The Microbiology Department is currently developing an expanded research and graduate training program. During the next 3 years the department anticipates hiring a total of four new faculty members with research interests in the general area of microbiology. Adequate start-up funds for these positions are available and the department can offer highly competitive salaries. Interested individuals should send curriculum vitae, statement of research interest, and have three letters of reference sent to: **Dr. John A. Kinsey, Chairman, Search Committee, University of Kansas Medical Center, Kansas City, Kansas 66103.** Completed applications should be received by 15 August 1985. *The University of Kansas is an Affirmative Action/Equal Opportunity Employer.*

**MOLECULAR BIOLOGIST, POSTDOCTORAL, OR JUNIOR FACULTY** (nontenured) available immediately, to participate in a project on regulation of acetylcholinesterase gene expression in somatic cell hybrids. Knowledge of recombinant DNA methods essential; hybridoma experience helpful. Salary range: \$22,000 to \$30,000 based on experience. Arrange to have three references forwarded to: **Dr. Kenneth W. Hunter, Jr., Sc.D., c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20814.**

### POSTDOCTORAL RESEARCH ASSOCIATE MARINE ANIMAL PHYSIOLOGY OR MARINE PLANKTON BIOLOGY

Alabama's Marine Environmental Science Consortium (MESC) is soliciting applications for a 2-year teaching/research postdoctoral fellow with training in (i) marine animal physiology or (ii) plankton biology. The 2-year term will be positioned at the Dauphin Island Sea Lab near Mobile, Alabama, and be available starting 1 January 1986 with a first-year salary of \$18,000-plus.

The successful candidate will be a Ph.D. with a strong background in (i) physiological adaptations of animals or (ii) marine plankton biology. The potential to generate outside funds will be a strong asset.

Interested applicants should submit curriculum vitae, research prospectus, and publications with the names of three references by 15 August 1985 to:

**Dr. George P. Crozier**  
Executive Director  
Marine Environmental Sciences Consortium  
Dauphin Island Sea Laboratory, Box 369  
Dauphin Island, Alabama 36528

*MESC is an Equal Opportunity/Affirmative Action Institution.*

## **POSITION AVAILABLE**

### **DIRECTOR, NATIONAL INSTITUTE ON DRUG ABUSE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES**

The Alcohol, Drug Abuse, and Mental Health Administration invites nominations and applications for this Senior Executive Service position in the career civil service. Annual salary range is \$61,296 to \$70,500. Physicians may also be eligible for a Physicians' Comparability Allowance of up to \$10,000 per year.

NIDA's Federal programs include intramural and extramural research, administration of research training programs, and technical assistance to States and communities. The Director manages a staff of 259 and a budget of \$80 million, in Rockville, Maryland.

Minimum requirements are a degree of Doctor of Medicine, Doctor of Osteopathy, or a bachelor's or higher degree in an academic field relating to the health sciences, and progressively responsible experience in development, administration, and evaluation of significant public health programs including prevention, research, services, or training experi-

ence in the area of drug abuse. Candidates must also have experience in the management of public health programs, demonstrating competence to assume leadership in planning, staffing, directing, coordinating, and allocating resources, and other responsibilities associated with executive leadership of a major national program.

Submit applications (Application for Federal Employment, SF-171), accompanied by a current curriculum vitae and bibliography, to Ms. Lois Mercer, Division of Personnel Management, Alcohol, Drug Abuse, and Mental Health Administration, 5600 Fishers Lane, Room 15C-26, Rockville, Maryland 20857 (Phone: 301/443-5030). Applications will be accepted without the SF-171, provided the SF-171 is submitted upon request. Nominations and applications should be submitted by July 31.

Applications from women and minority group members are especially solicited.

*THE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION IS AN EQUAL OPPORTUNITY EMPLOYER.*

## **NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**OPENING DATE: July 1, 1985**

**CLOSING DATE: July 31, 1985**

(All applications must be postmarked by closing date)

The National Institutes of Health invites nominations and applications for the position of Director, Division of Research Grants (DRG).

The Director, DRG, directs an organization that provides staff support to the Office of the Director, NIH, in the formulation of grant and award policies and procedures; provides central receipt of all PHS applications for research and research training support and makes initial referral to PHS components; assigns NIH applications to supporting Institutes/Divisions and to DRG initial review groups; provides scientific review of NIH Research Grants, National Research Service Awards, and research career development applications; collects, stores, retrieves, analyzes and evaluates management and program data needed to administer extramural programs; reviews and analyzes the character and direction of research and training supported through NIH grants and the resources necessary for such support. The Division's staff includes over 430 employees with a direct budget of 19.8 million dollars, plus responsibility for Chariman's Grants in excess of 6 million dollars.

This is a Civil Service position in the Senior Executive Service (SES), with an authorized salary range from \$61,296 to \$68,700 per annum depending on qualifications. Candidates may be eligible for Physicians Comparability Allowance up to \$10,000 per year. Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

The mandatory professional/technical qualifications require that candidates meet the minimum educational requirements for Medical Officer, GS-602, or Health Science Administrator, GS-601, as defined by the U.S. Office of Personnel Management Handbook X-118—Qualifications Standards for positions under the General Schedule, which is available in Federal Personnel Offices and Federal Job Information Centers. Candidates must also possess familiarity with Federal Grant and award programs, understanding

of the biomedical research community, and skill in negotiating sensitive issues in a scientific environment.

The mandatory managerial/executive qualifications require that candidates have demonstrated competence in the following areas: assuring that key agency and organizational goals are considered in making program decisions; representing the organization in negotiations with other organizations, and establishing working relationships with other program areas and relevant external groups; establishing program goals and the organizational structure and processes required; obtaining and allocating the necessary financial and material resources; developing a work environment that ensures that people are appropriately employed, effectively and efficiently utilized, and dealt with in a fair and equitable manner; and, establishing procedures for the periodic evaluation of programs, and making necessary adjustments to assure that appropriate results are being achieved.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the following factors: training and education, and honors and awards. Additional information may be obtained from Mrs. Helen S. Stafford, (301) 496-4197.

Applications (Personal Qualifications Statement, SF-171) are to be sent to Helen C. Stafford, Executive Secretary, Search Committee for Director, DRG, National Institutes of Health, Building 1, Room 19, Bethesda, Maryland 20205. A current curriculum vitae and bibliography must accompany all applications. Applications of women and/or minority group members are especially solicited.

**ALL QUALIFIED CANDIDATES WILL RECEIVE CONSIDERATION WITHOUT REGARD TO RACE, RELIGION, COLOR, SEX, AGE, NATIONAL ORIGIN, LAWFUL POLITICAL AFFILIATION, MARITAL STATUS, UNION MEMBERSHIP, OR ANY NONDISQUALIFYING PHYSICAL OR MENTAL HANDICAP.**

## POSITIONS OPEN

**MICROBIAL ECOLOGIST**—GS 12/13 to conduct basic research on the population dynamics of estuarine phytoplankton, as well as other estuarine and/or terrestrial microbial research related to a long-term program on an estuarine/watershed system. Submit a Standard Federal Form 171, résumé, and statement of research interests to: **David Correll, Smithsonian Environmental Research Center, Box 28, Edgewater, Md. 21037-0028**, by 14 August 1985. *Equal Opportunity Employer.*

**MOLECULAR BIOLOGY**, Assistant Professor. The Department of Biology, State University of New York (SUNY), College at Fredonia, seeks applicants for an immediate position for fall 1985 (1-year temporary position on a tenure-track opening). The vacancy is to be filled in the area of molecular or biochemical microbiology or eukaryotic gene technology. Teaching duties include junior-level biochemistry and graduate course in nucleic acids or similar specialty. Successful applicant is expected to participate in departmental recombinant gene technology major for undergraduates. Undergraduate and graduate research participation is encouraged. Send curriculum vitae to: **Dr. Wayne N. Yunghans, Search Committee, Department of Biology, SUNY College at Fredonia, Fredonia, N.Y. 14063**. Application deadline: 19 July 1985. *The State University of New York is an Equal Opportunity/Affirmative Action Employer. Telephone: 716-673-3282.*

**MYCOBACTERIOLOGIST, HANSEN'S DISEASE**. Centers for Disease Control, Division of Bacterial Diseases, is recruiting for a supervisory research position, GM 13-15. Incumbent will be responsible for studies of the therapy and immunology of experimental Hansen's disease in the mouse model, development and application of technology for the diagnosis of Hansen's disease, and in vivo evaluation of antimicrobial agents. Candidates with Ph.D. or M.D. degree are preferred and should have demonstrated research experience in the area of experimental chemotherapy and/or immunology with knowledge of pathogenic mechanisms, preferably with *Mus leprae*. Candidates should submit curriculum vitae and names of three references to: **Personnel Management, Attention: Mike Mitchell, Centers for Disease Control, Atlanta, Georgia 30333; telephone: 404-329-3271**. For scientific information, contact: **Robert C. Good, Ph.D., telephone 404-329-3021**. *The Centers for Disease Control is an Equal Opportunity Employer.*

## UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Candidates for faculty appointment are invited to apply for the following positions:

**PHYSIOLOGY** (Number 0040)—Associate professor. The Department of Physiology and Biophysics at the University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma, invites applications for a tenure-track position at the associate professor level. The candidate should have research experience in cardiovascular physiology as demonstrated by a record of research support and peer-reviewed publications in cardiovascular physiology; competence in computer analysis of cardiovascular data, computer simulation of the cardiovascular system, and computer systems applications in laboratory management; and experience in teaching physiology to medical, dental, and graduate students. The individual should have a M.D. and/or Ph.D. degree.

Curriculum vitae may be directed to: **The University of Oklahoma College of Medicine, P.O. Box 26901, Oklahoma City, Okla. 73190**. Please identify the vacancy number of the position as indicated. *We are an Equal Opportunity Employer.*

## PLASMA DERIVATIVES MANAGER

A manager is being sought for the American Red Cross (ARC) Plasma Derivatives Pilot Plant in Glendale, California. Responsibilities include coordination of all ARC pilot plant activities for the development and production of new products and for the improvement of current licensed products. At least 6 years of experience is required in plasma protein research and development, including purification methods and large-scale plasma fractionation. Salary commensurate with experience. Send curriculum vitae and the names of three references to:

**D. Menache-Aronson, M.D.  
Head, Plasma Derivatives Laboratory  
American Red Cross  
9312 Old Georgetown Road  
Bethesda, Maryland 20814**

## POSITIONS OPEN

### NEUROENDOCRINOLOGIST DEPARTMENT OF PHYSIOLOGY QUEEN'S UNIVERSITY

A vacancy exists for an experienced neuroendocrinologist. The preferred applicant should have the Ph.D. and/or the M.D. degree, several years of teaching experience, and a record of independent research of high quality. The applicant will be expected to lead an active research program and to participate in undergraduate and graduate teaching. The facilities for research are outstanding and the appointment is a regular one under tenure regulations. The appointment will be made at a level appropriate to the candidate's qualifications. *Applications are encouraged from candidates of either sex.* Applicants should submit curriculum vitae, a brief statement of their research interests and objectives, selected reprints, and the names of three referees from whom a confidential assessment of research and teaching abilities may be obtained to: **Dr. V. C. Abrahams, Department of Physiology, Queen's University, Kingston, Ontario, Canada K7L 3N6**.

### PEPTIDE CHEMIST

Research and Diagnostic Antibodies needs to add a Ph.D.-level peptide chemist/biochemist to its scientific staff. Postdoctoral experience in solid-phase synthesis, purification, and analysis of peptides of biological importance is required. Additional experience in the purification of peptides and proteins from starting materials is highly desirable. Please respond by 31 July to:

**Dr. Robert Webber  
Research and Diagnostic Antibodies  
P.O. Box 7653  
Berkeley, Calif. 94707**

*Research and Diagnostic Antibodies is an Equal Opportunity Employer.*

### PHARMACOLOGY

The Department of Pharmacology, Division of Functional Biology, of the West Virginia School of Osteopathic Medicine (WVSOM), seeks two assistant or associate professors of pharmacology. Applicants must have a good background in general physiology and pharmacology, with experience in one or more of the following areas: cardiovascular, pharmacology, neuropharmacology, chemotherapy, and antibiotics. Significant teaching experience and a demonstrated ability to conduct independent research are also required.

Rank and salary will be commensurate with qualifications. Send current curriculum vitae and three letters of recommendation to: **Michael K. Cope, Ph.D., Associate Dean for Academic Affairs, WVSOM, 400 North Lee Street, Lewisburg, West Virginia 24901**, by 31 July 1985. The position is available immediately.

*WVSOM is an Affirmative Action/Equal Opportunity Employer.*

**PHYSIOLOGICAL PSYCHOLOGIST**. Appointment at the postdoctoral or, pending budgetary approval, possibly at the visiting assistant professor rank, to collaborate in research on: (i) behavioral pharmacology of ethanol, (ii) CNS control of exploratory behavior, (iii) food intake and energy regulation, or (iv) adrenocortical influence on CNS development. Teaching load and salary (\$16,000 to \$21,000), dependent upon rank and competence. Position begins 19 August 1985, preferably. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. L. D. Devenport, Department of Psychology, University of Oklahoma, Norman, Oklahoma 73019**. Telephone: 405-325-2020.

**PHYSIOLOGY**. The Department of Physiology of the Ohio State University, College of Medicine, is seeking a physiologist with an established research program for a full-time associate or full professorship. A Ph.D. or equivalent and teaching experience are required. The successful candidate will be expected to teach medical, dental, and graduate courses; advise graduate students; and participate in interdisciplinary research programs with other departments in the College of Medicine and University. Send letter of application, curriculum vitae, and the names of three references by 1 August 1985 to: **Dr. Jack Wood, Department of Physiology, The Ohio State University, 333 West 10 Avenue, Columbus, Ohio 43210**. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**NEUROSCIENCE RESEARCH POSITIONS** available for postdoctoral scientist interested in adult and/or child psychopathology at a Research Psychiatric Institute affiliated with New York University, Department of Psychiatry. Tenure-track and academic appointment available for individual with established competence. Generous benefits; New York State position in Rockland suburb of New York City. Send curriculum vitae to: **Search Committee, NATHAN S. KLINE INSTITUTE FOR PSYCHIATRIC RESEARCH, Orangeburg, N.Y. 10962**. *An Equal Opportunity Employer, M/F.*

**POSTDOCTORAL AND ASSISTANT PROFESSOR POSITIONS** available immediately for project in computer-aided neuroanatomy and visual system modeling of primate visual system at New York University Medical Center.

Candidates must have experience in neuroanatomical techniques, 2DG, autoradiography, and so forth. Physiological recording, visual system studies, or computer experience also desirable. As of placement of this ad, these positions are unfilled. Send résumés to: **Professor Eric Schwartz, Brain Research Laboratory, New York University Medical Center, New York, N.Y. 10016**.

*An Affirmative Action/Equal Opportunity Employer, M/F*

**POSTDOCTORAL/ASSISTANT RESEARCH** available immediately for 3 years to study a novel system of regulation of gene expression and replication by silicon in the diatom, by analysis of gene banks previously constructed in this laboratory. Candidates should have demonstrated proficiency in recombinant DNA techniques, including cDNA cloning, analysis of gene banks by plaque and colony hybridization, vector construction, Southern and Northern hybridization, dot hybridization, transformation of eukaryotic microorganisms, and analysis of regulatory sequences. DNA sequencing experience preferred but not required. A technician is provided. Salary: \$24,180. Applicants with a proven record of independent publications and the ability to supervise technical personnel will be favored. Send curriculum vitae, research experience, reprints, and three references to: **Professor B. E. Volcani, Scripps Institution of Oceanography, University of California, La Jolla, Calif. 92093**. Telephone: 619-452-2194. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL ASSOCIATE IN PHOTOSYNTHESIS** available 1 September for studies of water oxidation and properties of membrane surfaces. Approaches include structural, biochemical, biophysical, and molecular biological. The position is for 1 year with the possibility of extension. Salary is highly competitive. Send curriculum vitae, short statement of research interests, and names of three professional references to: **Dr. Michael Seibert, Solar Energy Research Institute, 1617 Cole Boulevard, Golden, Colo. 80401**. *SERI is an Equal Opportunity Employer.*

**POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE** to work in CNS injury and regeneration using a model allowing the study of individual mammalian axons in vivo, with function and continuity preserved. This involves cell biology, neurophysiology, growth cone, and axon transport (using AVEC-DIC) methods. Send résumé, statement of interests, and three references to: **Walter Levy, M.D., N522 Neurosurgery, University of Missouri Health Sciences Center, 1 Hospital Drive, Columbia, Missouri 65212**.

### POSTDOCTORAL POSITIONS HOWARD HUGHES MEDICAL INSTITUTE/PHILADELPHIA

Fully funded postdoctoral positions in molecular biology and molecular genetics are now available at the Howard Hughes Medical Institute of the University of Pennsylvania. Active research projects include: transcriptional and translational control of eukaryotic gene expression, mechanisms of cellular transformation and gene amplification, molecular mechanisms of chromatin inactivation, and the application of molecular genetics to studies of inherited disease.

For information, please contact:

**Dr. Steve Liehaber, Coordinator  
Howard Hughes Medical Institute  
Department of Human Genetics  
Medical Laboratories Building/G3  
University of Pennsylvania School of Medicine  
Philadelphia, Pa. 19104**

# DIRECTOR

## HERZBERG INSTITUTE OF ASTROPHYSICS

### Ottawa, Ontario

#### The Institute

The National Research Council of Canada invites applications for the position of Director of its Herzberg Institute of Astrophysics whose headquarters are located in Ottawa, Canada. The Institute, which was created in 1975, is engaged in basic research in astrophysics and related topics. It carries out programs in optical and radio astronomy, optical and microwave spectroscopy, and space science.

In addition to its Ottawa laboratories, the Institute operates the Dominion Astrophysical Observatory in Victoria, British Columbia, the Dominion Radio Astrophysical Observatory at Penticton, British Columbia, and the Algonquin Radio Observatory at Lake Traverse, Ontario, and is a major participant in the support and use of the Canada-France-Hawaii telescope.

#### The Position

Reporting to the Vice-President (Physical Sciences and Engineering), the Director will be responsible for planning, organizing, implementing and controlling the Institute's programs and will advise management on long term research goals. The Institute has a personnel complement of approximately 200, of whom

about 50% are professional scientists and engineers, and an annual operating budget of approximately four million dollars excluding salaries.

#### The Candidate

The person appointed will have an established reputation for outstanding leadership in research and the ability to lead, manage and coordinate the activities of the Institute. Candidates will have a doctorate in astronomy or related physical science and a distinguished record of achievement in science, as well as demonstrated ability in research management.

SALARY will be commensurate with qualifications and is supplemented by a competitive benefits package including relocation allowance.

PLEASE SEND DETAILED RESUME IN CONFIDENCE TO:  
General Manager  
Personnel Branch  
National Research Council of Canada  
Ottawa, (Ontario) Canada, K1A 0R6



National Research  
Council Canada

Conseil national  
de recherches Canada

Canada

## U.S. PUBLIC HEALTH SERVICE EPIDEMIOLOGY TRAINING PROGRAM—1986

The U.S. Public Health Service (USPHS) invites applications for a planned extension of a training program in medical epidemiology. Up to eleven (11) persons per year, who already have an M.D., a doctorate in an allied health profession, or Ph.D. in a biomedical or behavioral science (e.g., biochemistry, psychology, etc.), or equivalent, may be accepted as service fellows of the USPHS (a non-tenured, junior professional classification under civil/service) for up to a three-year period of duty. Applications received by *September 10, 1985* may be considered for service to begin between July 1, and September 1, 1986.

During the first year, each successful applicant will attend a university at government expense to study epidemiology, biostatistics, and related subjects. This course work should be creditable toward, but will not necessarily complete requirements for, a degree in public health. During the subsequent two years, individuals will work in association with senior epidemiologists in the participating USPHS agencies (Alcohol, Drug Abuse, and Mental Health Administration; Food and Drug Administration; National Center for Health Statistics; and the National Institutes of Health) primarily in research studies. A matching procedure akin to the National Internship Matching will be employed to assure that each individual is assigned to a preceptor whose area of expertise is of interest to the trainee, and consistent with his/her career plans.

Salaries will be provided according to the scale in effect for staff fellows in intramural research at ADAMHA and NIH. The current schedule of remuneration for a physician to be recruited in 1986 is \$30,000 per annum for the first year, (\$21,000 for a non-physician). Educational costs and (allowable) relocation expenses for the first year are provided in addition.

Basic requirements for application to the program are:

1. M.D., doctorate in an allied health profession, or Ph.D. in a biomedical or behavioral science, or equivalent, *and* one year of post-doctoral training or experience (by July 1, 1986).
2. *U.S. citizenship* at time of application.
3. Acceptability to an accredited university offering an M.P.H. or equivalent, or more advanced public health degree.

To obtain further program details and application forms, *send a postcard only*, with your *printed* name and home mailing address to:

**Robert S. Gordon, Jr., M.D., M.H.S.**  
**Chairman, Steering Committee**  
**NIH, Building 1, Room 238**  
**Bethesda, Maryland 20205**

Please . . . *do not send* letters, curriculum vitae, resumes, transcripts, reprints, etc., until you have received the instructions for submission and completed the application form.

*THE USPHS IS AN EQUAL OPPORTUNITY EMPLOYER*

## POSITIONS OPEN

**POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE** position available immediately in research on the structure and metabolism of plasma lipoproteins and the cell biology of atherosclerosis. Background in biochemistry, cell biology, or molecular biology. Send curriculum vitae to: **Dr. Alan Tall, Department of Medicine, Columbia University, 630 West 168 Street, New York, N.Y. 10032.**

**POSTDOCTORAL POSITION** available to study the role of ligand-induced phosphorylation of surface receptors in eukaryotic cells. Current work is focused on the surface cAMP receptor which mediates activation of adenylate cyclase and chemotaxis in *Dictyostelium*. Applicants should have experience in biochemistry, cell biology, or genetics. Send curriculum vitae and names of three references to: **Dr. Peter Devreotes, Department of Biological Chemistry, Johns Hopkins University, School of Medicine, Baltimore, Md. 21205.**

## POSITIONS OPEN

**POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE POSITION** in human genetics. Two positions available immediately: one in molecular genetics and one in oncocyto-genetics. Send curriculum vitae to: **E. Shapira, M.D., Ph.D., Human Genetics Program, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, La. 70112. Telephone: 504-588-5229. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available to study water relations of vascular plants. Experience with electrical circuit analogs, P-V curves, Poiseuille's law, psychrometry, transpiration measurements, and/or xylem anatomy desirable. Send curriculum vitae and names of three references to: **Dr. Arthur C. Gibson or Dr. Park S. Nobel, Department of Biology, University of California, Los Angeles, Calif. 90024.**

*UCLA is an Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL FELLOW

A 2-year position for a **postdoctoral fellow** is available in the Department of Physiology and Biophysics of the University of Tennessee Center for the Health Sciences. Candidates should have a Ph.D. or M.D. degree, and a research interest in the control of perinatal hemodynamics, particularly contributions of eicosanoids. Send curriculum vitae, a brief statement of research interests, and the names of three references to: **Dr. Charles Leffler, Associate Professor, Department of Physiology and Biophysics, University of Tennessee Center for the Health Sciences, Memphis, Tennessee 38163. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available immediately to study the effects of metals on phagocytosis in marine molluscs. Background in cell biology and biochemistry essential. Send curriculum vitae and names of three references to: **Dr. Thomas C. Cheng, Director, Marine Biomedical Research Program, Medical University of South Carolina, P.O. Box 12559 (Fort Johnson), Charleston, S.C. 29412. Telephone: 803-795-7490. An Equal Opportunity Employer.**

### POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY AND BIOPHYSICS

Positions are currently open and funded in one or more of the following areas of investigation: (i) synthesis of completely defined, carcinogen-modified deoxyribonucleotides, (ii) conformational studies of carcinogen-modified oligonucleotides, (iii) site-specific mutagenicity studies employing synthetic oligonucleotides, and (iv) protein-DNA interactions. To apply send curriculum vitae and three letters of reference forwarded to: **Dr. Thomas Meehan, Department of Pharmaceutical Chemistry, University of California, San Francisco, Calif. 94143.**

**POSTDOCTORAL POSITION** to study mechanisms of gene regulation or isolation and characterization of recessive genes involved in cell immortalization and neoplastic transformation. Experience in recombinant DNA technology desirable. Send curriculum vitae to: **Dr. Solon L. Rhode, The Eppley Institute, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Neb. 68105.**

**POSTDOCTORAL RESEARCH ASSOCIATE.** Will work on synthesis, spectral and kinetic studies of organoplatinum compounds. Knowledge of FT-IR, HPLC, <sup>13</sup>C-NMR and other instrumental techniques required. Ph.D. in synthetic medicinal chemistry with 1 year of post-Ph.D. research experience. Five days; 37.5 hours per week; \$17,500 per year. Send curriculum vitae and three references to: **Dr. Wayne K. Anderson, Department of Medicinal Chemistry, State University of New York/Buffalo, Buffalo, New York 14260. Affirmative Action/Equal Opportunity Employer.**

The **RESEARCH SCHOOL OF CHEMISTRY** of the **AUSTRALIAN NATIONAL UNIVERSITY** invites applications from suitably qualified men and women for **POSTDOCTORAL RESEARCH POSITIONS**. Major research interests in physical and theoretical chemistry include: novel materials; low dimensional phenomena including interfaces; neutron scattering (Professor J. W. White); spectroscopy and photochemistry (Dr. J. Ferguson); photophysics and magnetic resonance (Dr. R. Bramley); NMR spectroscopy, structure, and dynamics of macromolecules (Dr. L. R. Brown); x-ray diffraction and theoretical studies of disordered materials (Dr. T. R. Welberry); liquid state chemical physics (Dr. D. J. Evans); theoretical organic chemistry (Dr. L. Radom). Salary will be in accordance with qualifications and experience within the ranges: postdoctoral fellow, A\$22,614 to \$25,905 per annum; research fellow, A\$26,236 to \$34,467 per annum; (A\$1: U.S. \$.68). Reasonable travel expenses. Assistance with housing. Maternity leave. Superannuation. There is no application form. Applicants should supply to: **The Registrar, Australian National University, G.P.O. Box 4, Canberra, ACT 2601, Australia, by 30 August 1985, curriculum vitae, list of publications, statement of research interests, two passport-sized photographs, names and addresses of three academic referees, and probable date on which the fellowship, if awarded, could be taken up. The University reserves the right not to make an appointment or to make an appointment by invitation at any time. Prospective applicants should write for further particulars, quoting reference number RC 30.5.1, before submitting applications.**

*The University is an Equal Opportunity Employer.*

# ONCOGENE SCIENCE INC.

Expanding staff at Long Island, NY research facilities due to advances in

**Oncogene and growth factor research**  
to develop products for the early  
**detection -- monitoring -- treatment**  
**of human cancers.**

— Positions Available —

## DIRECTOR OF BIOCHEMISTRY

Responsible to direct and coordinate corporate biochemistry program. Ph.D. in Protein Chemistry — purification and sequencing; 8-10 years postdoctoral experience. Strong publication record highly desirable. Will contribute to development of diagnostic and pharmaceutical products.

## PROJECT DIRECTOR

Responsible for formatting diagnostic tests for HTLV-III infection and oncogene activation. Test development, pilot and scale-up operations, standardization of appropriate QC procedures. Ph.D. in Immunochemistry. 5-7 years postdoctoral experience in immunoassay, format design, product development.

## MOLECULAR BIOLOGIST

To participate in projects aimed at determining the role of oncogenes in human cancer using cDNA cloning, *in situ* hybridization and bacterial expression of antigens. Ph.D. in Molecular Biology, although candidates with Masters degree and appropriate experience will be considered.

## Be part of the excitement at OSI.

Send resume and personal data to Scientific Director,  
Oncogene Science Inc., 222 Station Plaza North, Suite 330,  
Mineola, NY 11501.

**Competitive salary. Liberal benefits.**  
**Equity potential.**

*Equal Opportunity Employer.*



## POSITIONS OPEN

**POSTDOCTORAL POSITION** available in multidisciplinary group studying the pathophysiology of congenital urinary tract obstruction and the development of techniques for prenatal surgical correction using the fetal lamb model. Candidates should have an M.D. or Ph.D. degree. Position available 1 September 1985. Send curriculum vitae and three letters of reference to: **David Mininberg, M.D., Department of Urology, Cornell University Medical College, 1300 York Avenue, New York, N.Y. 10021.**

### OLD DOMINION UNIVERSITY

**POSTDOCTORAL RESEARCH ASSOCIATE.** Position available 1 August 1985 to participate in research projects focused on maternal regulation of early embryonic development in mammals. Background in reproductive physiology and embryo manipulation required. Initial appointment for 1 year with possibility for renewal. Starting salary of \$20,000 per academic year. Send curriculum vitae, summary of professional experience, and names of three references (with addresses) by 19 July 1985 to: **Dr. Joseph C. Daniel, Jr., Dean, School of Sciences and Health Professions, Education Building, Room 218, Old Dominion University (ODU), Norfolk, Va. 23508-8540. ODU is an Affirmative Action/Equal Opportunity Institution.**

**POSTDOCTORAL RESEARCH ASSOCIATE** position in neuroscience/membrane biology available immediately in the Department of Neurology, Stanford University School of Medicine/PAVAMC, for an individual who will join ongoing studies on the molecular organization of normal and pathological axons. Areas of current interest include ion channel organization, cell surface molecules in axo-glial recognition, and control of myelination. Applicants should have strong backgrounds in neurobiology, electrophysiology, or membrane biology. Experience with patch clamping, monoclonal antibody marking techniques, electron microscopy, or freeze-fracture is desirable. Send curriculum vitae and three references to: **Stephen G. Waxman, M.D., Ph.D., Professor and Chief, Stanford University Neurological Unit (127), VA Medical Center, Palo Alto, Calif. 94304. Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION

Synthetic organic/medicinal chemist to work in a multidisciplinary, multi-institutional group investigating the potential of polyamine biosynthesis inhibitors as chemotherapeutic agents [*Annu. Rep. Med. Chem.* 17, 253 (1982)]. Our efforts in synthesis and enzymology will be coordinated with others in the group studying the effects of the new enzyme inhibitors on polyamine biosynthesis, cell growth, and antitumor activity in vitro and in vivo. Salary negotiable. Send curriculum vitae, containing names of three references, and a statement of research interests and experience to: **Professor James K. Coward, Department of Chemistry, Rensselaer Polytechnic Institute (RPI), Troy, N.Y. 12180-3590. RPI is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS** (two) available immediately. Recent M.S. or Ph.D. in immunology, biochemistry, or related field with expertise in hybridoma-monoclonal antibody and cell culture applications. Second position for a recent Ph.D. in immunology or biochemistry to work in the area(s) of biochemistry and immunology of central and peripheral nervous system antigens. Starting salary: \$19,000 per year. Send curriculum vitae and names of three references before 15 August to: **Dr. Terry Joe Sprinkle, VA Medical Center, Research Service (151), Neurochemistry Laboratories, Augusta, Ga. 30910. Equal Opportunity/Affirmative Action Program. J2905.**

**POSTDOCTORAL RESEARCH ASSOCIATE** to study the isolation, characterization, and immobilization of GABA receptors. Requires Ph.D. degree with experience in the isolation, purification, and characterization of proteins. Preference will be given to persons having experience in receptor isolation. Position anticipated for up to 3 years with summer 1985 starting date. Please send curriculum vitae, summary of research experience, and names and addresses of three references to: **Dr. Lemuel B. Wingard Jr., Department of Pharmacology, School of Medicine, 518 Scaife Hall, University of Pittsburgh, Pittsburgh, Pa. 15261, by 30 July 1985. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Rangeland Insect Laboratory, Bozeman, Montana, is seeking a microbiologist (insects) to conduct monoclonal antibody research on entomopoxviruses of grasshoppers. Previous experience in monoclonal antibody technology desirable. Maximum 2-year appointment. Minimum salary: \$26,381 per year. Must be U.S. citizen. For application information, contact: **Pat Roberts, Personnel Division, Beltsville, Maryland, telephone: 301-344-3138 or Dr. Henry, telephone: 406-994-6401.** Applications should show Annual Number RA-85-11(W01) and be sent to: **Dr. J. E. Henry, USDA/ARS/RIL, Montana State University, Bozeman, Mont. 57917-0001. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** is available immediately to study genetic alterations in the erythrocyte spectrin molecule in hereditary spherocytosis. A strong background in protein chemistry is required. The position is funded through an NIH grant and is available for 3 years. Send curriculum vitae and names of three references to:

**Dr. Steven R. Goodman  
Director of the Multidisciplinary Laboratories  
The Milton S. Hershey Medical Center  
The Pennsylvania State University  
P.O. Box 850  
Hershey, Pa. 17033**

**TWO POSTDOCTORAL POSITIONS** are available immediately for a Ph.D. biochemist and a molecular biologist to participate in studies of gene regulation by steroid receptors. Projects include the purification and characterization of human estrogen and progesterone receptors, cloning of the corresponding genes and preparation of monoclonal antibodies. Experience with steroid receptors, protein purification and analysis, monoclonal antibody production, and/or recombinant DNA techniques is desired. Salary is negotiable. Send curriculum vitae and three letters of reference to: **Dr. Geoffrey L. Greene, The University of Chicago, Ben May Laboratory for Cancer Research, 5841 South Maryland, Chicago, Illinois 60637.**

## DIRECTOR OF MELLON INSTITUTE

Carnegie-Mellon University in Pittsburgh, PA invites applications for the position of Director of Mellon Institute, a division of the University. Mellon Institute engages in contract research and interfaces with the rest of the University. The Director will report to the Provost of the University. The position requires a mature scientist-administrator with broad technical comprehension, a record of scientific accomplishments, and significant administrative experience. Along with a knowledge of contract R&D, the applicant will need a working understanding of R&D administration and management in industry and in government agencies. A predisposition to become intimately involved in, and to strengthen, the industry-academe interface will be an important consideration. The position will be open as of November 1, 1985 or reasonably shortly thereafter. The salary is negotiable.

**Send resume with covering letter and a list of three or more references to**

**Dr. Angel G. Jordan, Provost  
Carnegie-Mellon University  
5000 Forbes Avenue  
Pittsburgh, PA 15213**

**Carnegie-Mellon University is an equal opportunity, affirmative action employer.**

## ASSOCIATE EDITOR SCIENCE MAGAZINE

Editorial position available for a Ph.D. biochemist, microbiologist, or immunologist with 3 years of research experience, wide general interest in science, and publications in the refereed literature. The successful candidate's initial duties will include editing manuscripts for clarity and style. Progress to wider editorial responsibilities is expected. Previous editorial experience not required. Please submit résumé with cover letter, including salary requirements, to:

**Carolyn Bell  
SCIENCE Magazine  
1515 Massachusetts Avenue, NW  
Washington, D.C. 20005**

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH POSITION** available in 1985. Ph.D. in biochemistry to participate in an ongoing project concerning advanced glycosylation endproducts on proteins and their role in aging. This position offers a competitive salary and is renewable after 1 year. Qualified individuals should be knowledgeable in biochemical procedures, including radioimmunoassay and tissue culture. Submit your curriculum vitae and three references to: **Anthony Cerami, Ph.D., Laboratory of Medical Biochemistry, The Rockefeller University, 1230 York Avenue, New York, N.Y. 10021.**

## HARVARD MEDICAL SCHOOL DEPARTMENT OF PHARMACOLOGY

**Tenured Professorship**—Applications are invited for the position of professor in the Department of Pharmacology at Harvard Medical School. Candidates should have a strong background in neuropharmacology. The position will also involve active participation in the teaching of pharmacology to medical and graduate students. Applicants should submit curriculum vitae and a statement of research interest to: **Dr. David Potter, Chairman, Pharmacology Search Committee, Department of Neurobiology, Harvard Medical School, Boston, Mass. 02115.** *Harvard Medical School is a Equal Opportunity/Affirmative Action Employer.*

Harvard University invites inquiries from persons qualified for appointment to **FULL PROFESSORSHIP** in the area of **visual perception**, broadly construed to include individuals who may have collateral interests in psychobiology, psychophysics, or cognition. Candidates should indicate their interest by writing to: **S. H. White, Chairman, Department of Psychology and Social Relations, 33 Kirkland Street, Cambridge, Mass. 02138.** Curriculum vitae and the names of potential referees should be included. *Applications from women and members of minority groups are especially welcome.* The closing date for applying is 1 November 1985.

**VISITING PROFESSORSHIPS**—The Department of Medical Microbiology, University of Vermont, College of Medicine, is seeking two individuals for 1-year appointments (to commence 1 September 1985) at a rank and salary commensurate with experience. They will participate in a team-taught medical microbiology course, present a graduate-level course in area of interest, and interact with faculty members in research projects. Ph.D. in microbiology required. *Women, minority individuals, and those with strong backgrounds in virology or immunology are especially encouraged to apply.* Send résumé, with names of three referees, and have the three letters of reference sent to: **Dr. Warren I. Schaeffer, University of Vermont, College of Medicine, Department of Medical Microbiology, Given Medical Building, Burlington, Vermont 05405.** Application deadline: 15 August 1985 or until position is filled. *The University of Vermont is an Equal Opportunity Employer.*

**RESEARCH ASSOCIATE.** Ph.D. in biochemistry, genetics and/or microbiology. Three years of experience in prokaryote molecular genetics. Must possess knowledge of recombinant DNA methods, bacterial genetics, DNA sequencing, microbial sulfur metabolism. Conduct research on cloning various genes and gene fragments from *Escherichia coli* and *S. typhimurium* to determine DNA sequence of cloned fragments; study factors influencing regulation of cysteine biosynthesis in *E. coli* and *S. typhimurium*, measure enzyme levels in these organisms; determine gene expression on recombinant plasmids (maxicells). Responsible for laboratory supervision of technician and graduate student; general management of laboratory facilities involved in recombinant DNA and sequencing experiments. Apply to: **Job Service, 516 North Mangum Street, Durham, N.C. 27701**, or your nearest Job Service Office. Refer to Job Order Number 4109201, DOT Code 0.0.227-010. *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH FELLOW** in neurobiology, beginning in spring 1986. To work on experiments on synaptic transmission in vitro. Previous experience with tissue culture, with electrophysiological recording, and familiarity with computer programming desirable. Send curriculum vitae and names of references to: **Dr. A. R. Martin, Department of Physiology, C240, University of Colorado School of Medicine, 4200 East 9 Avenue, Denver, Colo. 80262.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH POSITIONS** supported through NIH training grant stipends available immediately for: (i) **pharmacologist/virologist** to investigate the pharmacokinetics and biological properties of interferons and mismatched double-stranded RNA interferon inducers, (ii) **immunologist/protein chemist** to carry out detailed studies on DNA-protein interactions using monoclonal antibodies as a model system; to quantitate DNA base modifications induced by irradiation and oxygen radicals using an immunological approach.

Applicants should submit curriculum vitae, a statement of research interests, transcripts, and three letters of recommendation to: **Dr. Paul O. P. Ts'o, Division of Biophysics, The Johns Hopkins University, School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Maryland 21205.**

## VISITING PROFESSORSHIPS IN FLORISTIC BOTANY

Under the terms of an endowment from Dr. and Mrs. L. R. Hesler, the Botany Department, The University of Tennessee, Knoxville, is able to support a limited number of visiting professors of floristic botany. Stipends will be determined by research proposals, and may be used to support salary and expenses in floristic, revisionary, or monographic plant systematics. Letters of inquiry may be sent to: **Hesler Endowment Fund, Botany Department, University of Tennessee, Knoxville, Tenn. 37916.**

## HARVARD MEDICAL SCHOOL PROFESSOR OF PHYSIOLOGY

The Department of Physiology of Harvard Medical School is seeking to fill a tenured professorship in the field of systems physiology with special emphasis on the coordination of functions at different levels of biological organization in the intact organism. The individual to be appointed will assume the following duties: carry out research in the field of integrative physiology, fulfill a major role in the teaching of physiology to first-year medical students, and participate in the training of Ph.D. students. *Qualified women and minority candidates are encouraged to apply.* Submit curriculum vitae to: **Dr. Elio Raviola, Chairman, Physiology Search Committee, Department of Anatomy and Cellular Biology, Harvard Medical School, Boston, Mass. 02115.** *Harvard Medical School is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE AND RESEARCH SPECIALIST POSITIONS** for conducting research of genetic aspects of biodegradation of hazardous chemicals. Postdoctoral research associates (Ph.D.). Must have experience in recombinant DNA techniques as well as in DNA sequencing. One research associate will work jointly with the University of Illinois at Chicago and an environmental research team in microbial ecology-biotechnology at the U.S. EPA Laboratory in Gulf Breeze, Florida. The other research associate and the research specialist (B.S.) will work jointly with the EPA Hazardous Waste Engineering Laboratory in Cincinnati, Ohio. Send résumés and other details to: **A. M. Chakrabarty, Department of Microbiology, University of Illinois at Chicago, Health Science Center, Chicago, Illinois 60612.** *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

## HARVARD MEDICAL SCHOOL PROFESSOR OF MICROBIOLOGY

There is now a search for a professor of microbiology and molecular genetics to carry out a strong research program focused on the relationship between growth factors, their receptors, the control of cellular proliferation and oncogenesis at the Dana-Farber Cancer Institute. Interested individuals should send a letter and curriculum vitae to: **Dr. Samuel A. Latt, Genetics Division, Childrens Hospital, 300 Longwood Avenue, Boston, Mass. 02115.** *Harvard Medical School is a Equal Opportunity/Affirmative Action Employer.*

**PROJECT DIRECTOR—NATURAL RESOURCES MANAGEMENT.** Washington-based nonprofit seeks a director for an AID-funded technical assistance project in environment and natural resource management. Applicants must have a technical background in a related field and at least 2 years of experience working in developing countries. Experience essential in producing quality reports within deadlines; and managing a government contract, budget, and staff. Applicants should send résumé and salary expectations to: **Box 134, SCIENCE.**

The U.S. Environmental Protection Agency (EPA), Environmental Research Laboratory at Corvallis, Oregon, is seeking a **REGIONAL AQUATIC ECOLOGIST, REGIONAL BIO-GEOGRAPHER, or WATERSHED ECOLOGIST** for its Hazardous Waste and Water Branch. The incumbent will work as a senior scientist and team leader in Corvallis to develop research that relates aquatic ecosystem quality to land quality and land activities.

Applicants must possess a doctorate or its equivalent relating to regional aquatic ecology, watershed ecology, or regional geography as it relates to aquatic ecosystems with extensive training or experience in land-water interactions and synoptic spatial analyses. Peer-reviewed journal publications are considered the strongest evidence of active research participation in the subject area. Experience managing multidisciplinary research and interacting with state and federal water resource agencies is desirable. This is not currently a permanent EPA position, but may become so. Several types of employment opportunities currently exist and will be discussed with suitable applicants. Please contact: **Dr. Spencer Peterson, telephone: 503-757-4791 or FTS 420-4791**, if you have questions regarding this position. Applicants should send a résumé or standard form 171 to: **Dr. Spencer Peterson, U.S. Environmental Protection Agency, Environmental Research Laboratory-Corvallis, 200 Southwest 35 Street, Corvallis, Oregon 97333**, no later than 31 July 1985. *EPA is an Equal Opportunity Employer.*

**RESEARCH AFFILIATE, Ph.D.,** immediate opening for Ph.D. in cell biology and/or genetic toxicology for grant-supported in vitro research on the mechanism of dioxin toxicity using epithelial cell cultures as a model and development of an in vitro bioassay for dioxin-like compounds. Experience in mammalian cell culture required. Applicants should send curriculum vitae and three references to: **Dr. John Gierthy, Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201.** *An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE, POSTDOCTORAL** for person with background in biochemistry/molecular biology. Research to focus on the molecular biology/biochemistry of insect resistance in wheat. Previous experience in protein/carbohydrate chemistry and techniques of molecular biology desirable. This is an Agriculture (U.S. Department of Agriculture-USDA) position. GS-11/12; salary: \$26,381 to \$31,619 will be based on qualifications and experience for up to 2 years duration. U.S. citizenship required. *Equal Opportunity Employer.* Send résumé to: **Dr. R. H. Shukle or Dr. J. E. Foster, USDA-ARS, Department of Entomology, Purdue University, West Lafayette, Ind. 47907**, or telephone: 317-494-6351 or 317-494-4606.

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Hybritech is a leader in the application of monoclonal antibody technology to human health care needs. Our research and development objectives include basic hybridoma technology, *in vitro* and *in vivo* diagnosis of cancer, cancer therapy, infectious disease diagnosis and therapy, development of novel immunodiagnostic methods for hormones and development of radiopharmaceuticals.

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## SCIENCE

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30 March 1979, Tropical flowering tree;

23 February 1983, Landsat photo of Detroit, Michigan;

29 July 1983, Cheetah;

2 December 1983, Snowshoe hare;

23 December 1983, Cathedral window/DNA molecule.

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Write to AAAS, Department POST, 1155 Massachusetts Avenue, NW, Washington, D.C. 20005.

## Toxicologic Pathologists

CIBA-GEIGY Corporation is a major pharmaceutical company with its Toxicology and Pathology Division located in Summit, New Jersey. The Division operates within our premier Safety Evaluation Facility located in a campus-like setting amid a hub of scientific activity. The Division is responsible for safety evaluation of pharmaceutical and agrochemical products and is committed to excellence and teamwork in this undertaking. Although gross and microscopic evaluations are central to activities within the Subdivision of Pathology, emphasis is placed on elucidation of pathobiology and mechanisms of toxicity when interpreting tissue changes. Pathologists are involved in the design, conduct, and reporting of a variety of toxicity studies as well as in the review of all studies conducted in the Division.

We are seeking several accomplished Pathologists with D.V.M. and Ph.D. degrees, ACVP certification, or equivalent qualifications, and at least three years' experience in industry or academia. Understanding of the safety evaluation process, maturity of scientific judgement, and the ability to interact productively with other scientists are important.

We offer competitive salaries and benefits, including a generous vacation allowance, and opportunities for professional growth. Our location is in a convenient suburban area within one hour of New York City. Interested candidates should forward a resume, including salary history and requirements, in confidence to: Manager of Technical Staffing, The Pharmaceuticals Division, CIBA-GEIGY Corporation, 556 Morris Avenue, Summit, NJ 07901. An Equal Opportunity Employer m/f/h/v.

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### RESEARCH ASSOCIATE

Department of Biomedical Sciences, University of Illinois College of Medicine at Rockford, is seeking a research associate. Work involves (i) the formulation of theoretical approaches based on mathematical physical models for the study of biomolecular structure and interactions; (ii) the development of computational techniques including computer programs, the preparation of data input to the computer, job submission, collection, collation, and analysis of computer output; and (iii) the preparation of tables, figures, and text for manuscripts and reports. The job involves 40 hours per week from 8:30 a.m. to 5 p.m. Salary is \$20,000 per annum. Ph.D. in physics or biophysics required. Knowledge of scientific programming in Fortran as well as quantum chemistry and configuration statistics and their application to biomedical problems, as demonstrated by publication in a scientific journal, is also required.

Applicants should send complete résumés before 23 August 1985 to: **Illinois Job Service, 705 North Kilburn Avenue, Rockford, Ill. 61103; attention: Mike Craig.**

**SENIOR EDITOR.** Outstanding opportunity for a talented writer/editor to cover new technological developments for *High Technology*, a paid subscription/newsstand magazine with a circulation of 300,000 business people and technical professionals. Candidates must have significant background in science and technology; excellent reporting, writing, and editing skills; and the ability to analyze a wide range of technological trends and their business implications. Send résumé, writing samples, and salary requirements to: **Editor, High Technology, 38 Commercial Wharf, Boston, Mass. 02110.**

**TWO SMALL ANIMAL SURGEON POSITIONS.** Tufts University School of Veterinary Medicine invites applications for two faculty positions in small animal surgery, based at our new Hospital for Small Animals at North Grafton, Massachusetts. One position will commence on or after 1 September 1985 and the other on or after 1 July 1986. The applicants for these appointments should have received a D.V.M. degree or its equivalent and have completed at least a formal (Phase I and Phase II) small animal surgery residency program. Board-certification by the ACVS or eligibility for certification is desirable for at least one of the two positions. One junior (assistant professor) and one more senior (assistant professor to professor) position are being recruited, one of which should be in general/soft tissue surgery and the other in orthopedics/neurosurgery. The candidates will be encouraged to develop clinical and/or basic research programs. Applications (letter of intent, curriculum vitae, and names of at least three referees) should be submitted to: **Dr. Anthony Schwartz, Chairman, Department of Surgery and Associate Dean, Tufts University School of Veterinary Medicine, 200 Westboro Road, North Grafton, Mass. 01536.** Salary, rank, and administrative duties will be commensurate with experience and qualifications.

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The **ENVIRONMENTAL DEFENSE FUND (EDF)** is seeking a **STAFF SCIENTIST** to be located in the EDF New York office. Scientist will work primarily on EDF's Municipal Solid Waste Project, analyzing and developing waste management strategies for New York and other major U.S. cities. Salary: \$20,000 to \$22,000 with benefits. Graduate degree in engineering or economics preferred; consideration also given to candidates with degrees in physical or biological sciences. Experience in public policy or advocacy desirable. Send résumé to: **Waste Project, Environmental Defense Fund, 444 Park Avenue South, New York, N.Y. 10016.**

## POSITIONS OPEN

### RESPIRATORY PHYSIOLOGY

A postdoctoral fellowship (M.D. or Ph.D.) is available for research training in respiratory physiology with an eight-member group of faculty investigators. Send letter describing research interests, curriculum vitae, and names and addresses of three references to: **Donald Bartlett, Jr., M.D., Professor of Physiology, Dartmouth Medical School, Hanover, N.H. 03756. An Affirmative Action/Equal Opportunity Employer.**

**SCIENTIST—NUMERICAL METHODS IN RHEOLOGY.** We have developed systematic studies of the flow behavior of blood and blood-like non-Newtonian fluids using a rapid response Couette Viscometer. We will study arterial flow models and are seeking an individual whose background in numerical methods and biomechanics allows initiation of an analysis of time-dependent fluids. Our viscometric analyses allow measurement of thixotropy, viscoelasticity, and resistance to vorticity and suggest that the continuum mechanics approach could allow extension of these observations to general flow. Please describe your background and career interests. Competitive salary based on applicant's background and ability to generate an independent program. Send résumés and three references to: **Dr. Donald McMillan, Research Director, Hal B. Wallis Facility, Eisenhower Medical Center, 39,000 Bob Hope Drive, Rancho Mirage, California 92270.**

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### FELLOWSHIPS

#### Research Training in the Immunobiology and Cell Biology of Cancer

Pre- and postdoctoral fellowships, supported by a National Cancer Institute Training Grant, are currently available. The training program, established more than 10 years ago, operates within the Departments of Pathology, Biochemistry and Molecular Biology, and Comparative and Experimental Pathology. Comprehensive research training is available in the following areas:

Antigenic properties of metastatic tumor cell variants [Kimura, Klein]; molecular mechanisms of platelet activation by tumor cells [Kaol]; plasma membrane dynamics [Roberts]; complement function and tumor cell killing [Esser]; transport of cell-specific toxins [Donovan]; lymphocyte-mediated tumor cell killing [Smith]; pathogenesis of herpesviruses [Hutt-Fletcher]; Human B cell neoplasia [Braylan]; retroviruses and cell differentiation [Moscovici]; functional subclasses of lymphoid and non-lymphoid cells [Peck]; molecular genetics of immune responsiveness in mice [Wakeland]; macrophage activation for tumor-cell killing [Russell]; monocyte function in tumor growth regulation [Normann]; and interferon and interleukin production and function [Johnson].

Research experiences are enriched by advanced graduate courses and seminars within the programs of the J. Hillis Miller Health Center.

Send curriculum vitae with letter of inquiry to:

**Paul A. Klein, Ph.D.  
NCI Training Grant Coordinator  
Department of Pathology  
College of Medicine  
University of Florida  
Gainesville, Florida 32610**

**POSTDOCTORAL FELLOWSHIP** available in immunology. Current emphasis is the study of the scrapie prion protein. Techniques will include chemical and recombinant DNA synthesis of peptides, production of monoclonal antibodies, and protein immunochemistry. Candidates must have a Ph.D., M.D., or D.V.M. degree and be U.S. citizens or permanent residents. Send curriculum vitae and three letters of reference to: **Dr. Stanley Prusiner, Department of Neurology, HSE 781, University of California, San Francisco, California 94143. The University of California is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL FELLOWSHIP** to study molecular biology of mouse embryogenesis is available in our laboratory (3-year appointment). Experience in cDNA cloning, blot hybridization, and in situ hybridization is desired. Please send curriculum vitae, bibliography, brief description of experience, and names of three references to: **Dr. Y. C. Hsu, M.D., Professor, School of Hygiene and Public Health, The Johns Hopkins University, 615 North Wolfe Street, Baltimore, Md. 21205.**

## POSITIONS OPEN

**SENIOR APPLICATIONS PROGRAMMER.** Faculty position available at the University of Virginia in Charlottesville, Virginia, for a senior applications programmer responsible for development of VAX/VMS research and clinical applications in academic cardiology. No experience in medicine or cardiology required, but an M.S. in computer science, electrical engineering, or related field and 2 years of VAX experience are highly desirable. Salary negotiable. Reply to: **George A. Beller, M.D., Head, Division of Cardiology, University of Virginia School of Medicine, Box 158, Charlottesville, Va. 22908. Telephone: 804-924-2134. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.**

**SQUEEZE CASTING RESEARCHER.** Drawing on familiarity with die materials and design procedures to minimize erosion and the solidification of molten metals under hydrostatic pressure, the applicant will design and modify dies which translate finished part dimensions to required die dimensions, taking into consideration the properties of molten metal, flow patterns, operating temperatures, and conditions. Applicant will monitor the actual casting operation to evaluate the die design and establish automatize production process. Master's in mechanical engineering. One year of experience as a design engineer, 40 hours per week, 8:15 a.m. to 5 p.m.; \$2,250 per month. Please send résumés to: **ILLINOIS JOB SERVICE, 910 South Michigan Avenue, 3rd Floor, Chicago, Illinois 60605; attention: Dennis Doligala, Reference Number 4350-D. An employer-paid ad.**

### POSTDOCTORAL FELLOWSHIPS IN VISION RESEARCH EMORY UNIVERSITY, ATLANTA, GEORGIA

Postdoctoral fellowships to begin 1 July 1986, are now being offered by the Department of Ophthalmology at Emory University in vision research. Individuals with M.D., D.V.M. and/or Ph.D. degrees are sought. The program will allow training in several research areas: immunology, pharmacology, recombinant DNA, physiology, biochemistry, physiologic optics, and experimental pathology. Special emphasis will be placed upon research training in clinically relevant problems. Stipends are dependent upon the trainee's previous experience and will range up to \$30,000 per year. Applicants must be citizens or non-citizen nationals of the United States or must have been lawfully admitted for permanent residency at the time of appointment. Deadline for receipt of such applications is 15 November 1985. Applicants will be notified by 15 December 1985 of their acceptance into the program. Interested persons please contact: **Dr. Henry J. Kaplan, Department of Ophthalmology, Emory University, 1327 Clifton Road, NE, Atlanta, Georgia 30322. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL RESEARCH FELLOWSHIP IN IMMUNOLOGY.** Two-year fellowship in membrane receptor structure, function, and genetics, emphasizing the receptors of lymphocytes, macrophages, and neutrophils involved in regulation of host defense and autoimmunity. For further information, send curriculum vitae to: **Dr. Gordon D. Ross, Division of Rheumatology and Immunology, 932 F.L.O.B. 231H, University of North Carolina, Chapel Hill, N.C. 27514. Position available fall 1985.**

A **POSTDOCTORAL FELLOWSHIP** is available immediately at the University of Toronto in the field of molecular biology. Previous experience in the field of protein biosynthesis, molecular genetics, cloning, and sequencing techniques is preferred. A Ph.D. and three letters of reference are required. Write to:

**Professor M. C. Ganoza  
Banting and Best Department of Medical Research  
University of Toronto  
112 College Street  
Toronto, Ontario, Canada M5G 1L6**

**POSTDOCTORAL FELLOWSHIP** available to people interested in working with membrane bound proteins, membrane vesicles, liposomes, and reconstituted transport systems in order to purify and characterize amino acid and organic anion (PAH) transporters of the renal proximal tubule. Experience in either protein chemistry or immunochemistry and monoclonal antibodies preferred. Funding for U.S. citizens or permanent residents is secure. Please send curriculum vitae and three letters of reference to: **Richard D. Mamelok, S-155A, Stanford University Medical Center, Stanford, Calif. 94305.**



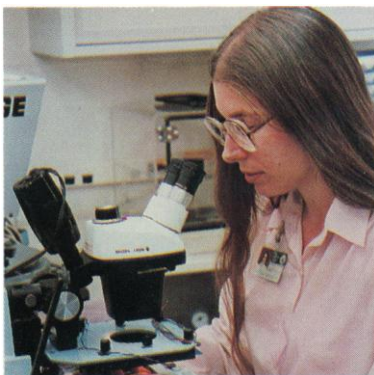


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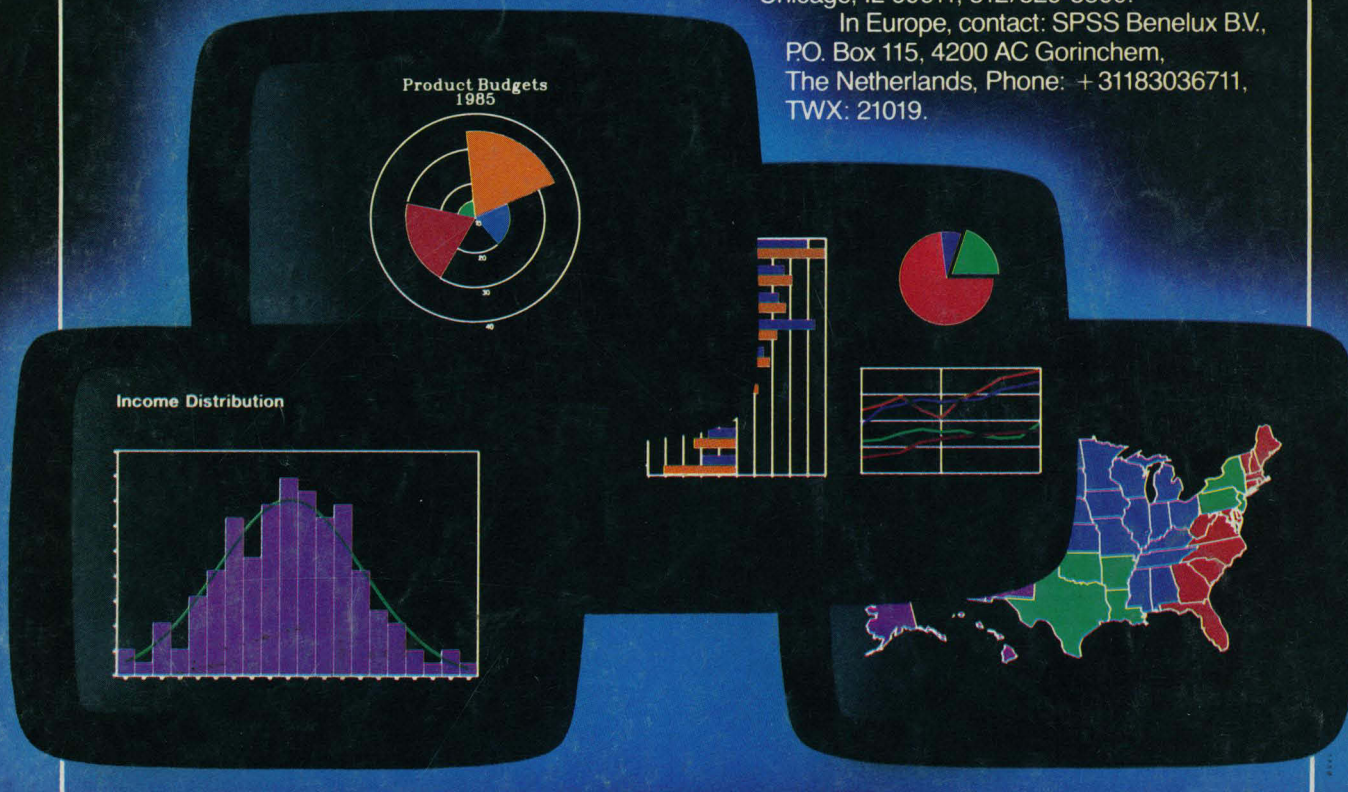
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