

# **FLMS N THE SCIENCES** Reviews and Recommendations

Compiled and edited by  
Michele M. Newman and  
Madelyn A. McRae

This indispensable reference reviews nearly 1000 films from all areas of science. It provides detailed summaries, evaluations, and complete ordering information for films appropriate to students, teachers, professionals, and general audiences. The reviews are grouped by Dewey decimal category. Subject-title and film distributor indexes also make them easy to use. A must for the librarian, the science teacher, or the curious browser.

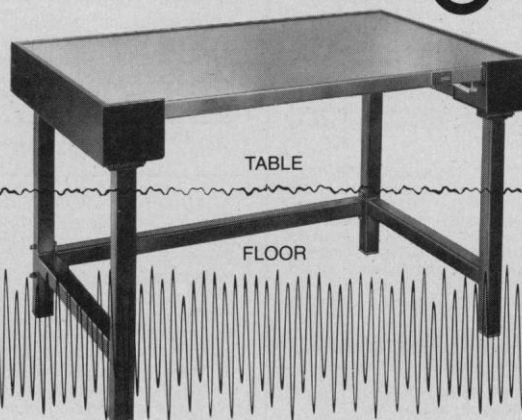
182 pages 1980  
Cloth: ISBN 87168-304-7 \$14.00

American Association for the  
Advancement of Science, Box  
FL6, 1515 Massachusetts  
Avenue, N.W., Washington, D.C.  
20005

An air operated, self-leveling Micro-g table provides maximum isolation throughout its long, trouble-free life. Performance is virtually unaffected by time; Micro-g construction practically eliminates problems due to aging and wear. Patented TMC Gimbal Piston provides approximately equal attenuation of both vertical and horizontal vibration. Series 61 Lab Tables and Series 63 Dual-Post Tables are standard in sizes from 30" x 30" to 36" x 48". Special accessories such as padded arm rests, sliding shelves, high-performance honeycomb top, etc. are available. SEND FOR FREE CATALOG.

vibration isolation systems.

# **MICRO-g**



**Technical Manufacturing Corporation**

185 New Boston Street • Woburn Massachusetts 01801  
Telephone: 617-933-0050 • Telex: 951408



TMC-12

Circle No. 64 on Readers' Service Card

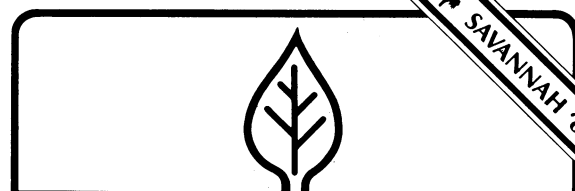
## *Announcing the 9th Annual* **AAAS Colloquium on R&D Policy**

**R&D in FY 1985:  
Budgets, Policies,  
Outlooks**

**29 & 30 March 1984  
The Shoreham Hotel  
Washington, DC**

For information, see the 3rd, 17th, and 24th February issues of *Science* or write or call: AAAS/COSEPP, 1776 Massachusetts Avenue, NW, 6th Floor, Washington, DC 20036; phone: (202) 467-4310.

**American Association for the  
Advancement of Science**



## **FIRST INTERNATIONAL CONGRESS OF PLANT MOLECULAR BIOLOGY**

OCTOBER 27 - NOVEMBER 2, 1985  
SAVANNAH, GEORGIA, USA

Organized by  
The International Society for  
Plant Molecular Biology

### SCIENTIFIC COMMITTEE

J.L. Key (Athens) Chairman	T.J. Higgins (Canberra)	O. Nelson (Madison)
M.D. Chilton (Raleigh)	E.J. Jaworski (St. Louis)	J. Peacock (Canberra)
G.B. Collins (Lexington)	T. Kosuge (Davis)	I. Takebe (Nagoya)
N.H. Chua (New York)	A. Kondoros (Szeged)	G. Toennissen (New York)
K. Hahlbrock (Cologne)	C.J. Leaver (Edinburgh)	D.P. Verma (Montreal)

The Congress intends to provide a forum for current research in plant molecular biology in its broadest sense and encompassing all of its subdisciplines. It will feature invited plenary speakers, sessions devoted to the various subdisciplines and poster sessions. Anyone conducting research in the scientific areas covered by the Congress is eligible to present a talk and/or poster.

For further information, Please write: Congress Secretary, 1st ICPMB/The Georgia Center/Athens, GA 30602/USA

\*\*\*\*\*

THE UNIVERSITY OF GEORGIA  
**BICENTENNIAL**  
1783-1983

Dr. Fred C. Davison  
President of The University of Georgia  
Honorary Congress President

# Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least two weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

**LINE CLASSIFIED ADVERTISING DEADLINES:**  
3 February issue (mailed 27 January): **13 January**  
10 February (mailed 3 February): **20 January**  
17 February (mailed 10 February): **27 January**  
24 February (mailed 17 February): **3 February**

**POSITIONS WANTED:** 40¢ per word, plus \$4 for use of box number, per insertion. \$10 minimum, per insertion. Prepayment required. This rate is available only to individuals seeking jobs.

**LINE DISPLAY (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth):** \$10.40 per millimeter; \$260 minimum, per insertion (minimum charge covers 25 millimeters on a single column; 25 millimeters equals 10 lines of 50 spaces per line). No charge for use of box number. No agency commission for ads less than 103 millimeters (4 inches). No cash discount. Prepayment required for all foreign ads. Purchase orders and billing address required for all other advertising.

Send copy for all **Positions Wanted** ads and **Line Display** ads less than 1/6 page in size (125 millimeters) to:

SCIENCE, Room 107  
1515 Massachusetts Avenue, NW  
Washington, D.C. 20005  
Telephone: 202-467-4456

Send copy for **Fractional Display** ads, 1/6 page and larger, and all **Marketplace** ads to:

Scherago Associates, Inc.  
1515 Broadway  
New York, N.Y. 10036  
Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

Box (give number)  
SCIENCE  
1515 Massachusetts Avenue, NW  
Washington, D.C. 20005

## POSITIONS WANTED

**Cell Biologist, M.D.,** clinical experience; 20 years of research and teaching in oncology, tissue culture, ultrastructural histocytology, immunology, 130 published papers, fluent in French, excellent writing skills. Seeks employment as writer/editor or consultant for scientific publications, translations, grant applications. Box 14, SCIENCE. X

**Collagen/Connective Tissue Biochemist, Ph.D.** Extensive research experience in soft and hard tissue collagen types, glycoproteins, phosphoproteins, and proteoglycans. Preparative, analytical, and HPLC methods development. Publications. Box 15, SCIENCE. X

**Computer Analyst, Programmer, B.S. biology 1977,** 21 credit hours towards M.S. computer applications. One year of business applications, 5 years of scientific (marine fisheries, ecology) experience. Includes data analysis, data management, computer graphics, working with scientists; mainframes, minis, micros. Three years as part-time college FORTRAN instructor. Seeking position at marine laboratory university/industry, research/academic environment. Box 12, SCIENCE. X

**Consultant, Ph.D.** Retired plant breeder-cytologist seeks contracts to study plant meiosis in own private laboratory. Harold J. Kidd, 1617 Dallas, Plainview, Texas 79072. Telephone: 806-296-7878. X

**Consultant.** Find a home for your product, especially pharmaceutical, animal health, agricultural areas. Europe a specialty. Product acquisitions. Ph.D., former licensing manager for top company. Extensive Japanese contacts. Box 11, SCIENCE. X

As your **President/CEO** I will help form or increase profits/sales of your existing biotechnology/life science/health care company. Box 343, SCIENCE, or telephone: 617-965-6340. 1/13, 27; 2/10, 24; 3/9, 23

## POSITIONS WANTED

**Immunologist, Ph.D. 1970.** University researcher with extensive background in cellular immunity, lymphocyte cell biology, and lymphokines. Current investigation of interferons in lymphocyte mediated target cell killing. Excellent publications and references. Mature, dedicated individual seeking position in academia or industry. Box 16, SCIENCE. 1/13, 20, 27

**Immunologist, Ph.D. 1980, post-Ph.D. 1983.** Specialized in local identification of auto-, and bacterial Ags in immunopathological mechanisms in human oral diseases. Current investigations in identification of specificity of local immune response; publications. Seeks university position. Box 13, SCIENCE. X

**M.D.;** in surgical residency, desires research fellowship for two or more years (may consider training towards Ph.D.) in vestibular physiology or temporal bone study related research. Excellent references. Available July 1984. Box 348, SCIENCE. X

## POSITIONS OPEN

**ACADEMIC CARDIOLOGIST**—To join the Division of Cardiology, VA Medical Center, Ann Arbor, Michigan, with appointment and activities at the University of Michigan. Functions of the position include an emphasis on invasive, electrophysiologic, or basic research and clinical attending responsibilities. Facilities include a new integrated invasive-noninvasive diagnostic center, CCU, and cardiac surgery program. Send curriculum vitae to: **Robert A. Vogel, M.D., Division of Cardiology, VA Medical Center, Ann Arbor, Mich. 48105.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.* 323DO.

**ACADEMIC CARDIOLOGIST**—A position is available in the Adult Cardiology Division of the University of Michigan Hospitals. The candidate should have demonstrated expertise in cardiovascular research as well as clinical cardiology. Research areas of interest include: the coronary circulation, central nervous system control of the circulation, ventricular function, cardiac physiology, and electrophysiology. Send curriculum vitae to: **Bertram Pitt, M.D., Director, Cardiology Division, University of Michigan Hospitals, W11611 Main, Box 55, 1405 East Ann Street, Ann Arbor, Michigan 48109.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.* 152DO.

**ACADEMIC POSITION IN CLINICAL AND INVESTIGATIONAL CARDIOLOGY,** University of Michigan, Ann Arbor. A position is available in the Adult Cardiology Division at the University of Michigan Hospitals. The candidate should have experience in clinical electrophysiology, antiarrhythmic studies, and pacemaker implantation, as well as evidence of success in clinical and/or basic investigations related to these techniques. Send curriculum vitae to: **Bertram Pitt, M.D., Director, Cardiology Division, University of Michigan Hospitals, W11611 Main, Box 55, 1405 East Ann Street, Ann Arbor, Michigan 48109.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.* 123DO.

**ASSISTANT PROFESSOR OF BIOLOGY.** Continuing position available September 1984 teaching undergraduate general biology and advanced courses in vertebrate systematics (including some combination of field courses in mammalogy, herpetology, or ornithology) and comparative anatomy. Ph.D. required; \$15,000 to \$16,500, plus attractive housing possibilities at very low rents. Send statement of teaching interests and background, transcripts, and letters of reference to: **Dr. Stanley Caine, Vice President for Academic Affairs, Hanover College, Hanover, Ind. 47243.**

**ASSISTANT PROFESSOR—ENVIRONMENTAL TOXICOLOGY.** Applications are being accepted for a tenure-track position to begin in August 1984, contingent upon legislative funding. Departmental interests are interdisciplinary and include applied environmental sciences, industrial hygiene/occupational health, and toxicology. An earned doctorate is required. Submit curriculum vitae and names of three references by 28 February 1984 to: **Dr. James Williams, Department of Environmental Health Sciences, University of South Carolina, Benson Room 306, Columbia, S.C. 29208.** *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ACADEMIC ADMINISTRATOR:** to serve as Director of Preventive Medicine Residency and Community-Oriented Primary Care programs. The programs are conducted jointly with the School of Medicine, University of California, San Francisco. The successful candidate will have an M.D. or M.P.H. degree, be Board-certified in preventive medicine [or certification to be awarded within 1 year of appointment], and have three or more years of experience in public health. Salary is negotiable to \$46,632 plus fringe benefits. Send curriculum vitae, selected publications, letters of reference, and a statement indicating how you match the specifications for the position by 15 April 1984 to: **Chair, Search Committee, 19 Earl Warren Hall, School of Public Health, University of California, Berkeley, Calif. 94720.**

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

**ANATOMISTS.** An outstanding, expanding department of anatomy is seeking one or two anatomists for tenure-track positions beginning 1 July 1984. Rank and salary are negotiable. Research interests should be within some area of cell biology, development, or neurobiology. Senior applicants must have fundable research and a past history of funding; junior applicants must have potentially fundable research. Teaching in a major medical course is required. Send curriculum vitae and three letters of recommendation to: **Dr. Roger Markwald (Chairman), and Dr. Stanley Kaplan (Search Committee Chairman), Department of Anatomy, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, Wisconsin 53226.** *An Equal Opportunity/Affirmative Action Employer.*

## ASSISTANT/ASSOCIATE PROFESSOR ANATOMY/PHYSIOLOGY

Applications are invited for a full-time, 1-year position at the assistant or associate professor level. Applicants should have a Ph.D. degree and a broad-based training in biology specializing in gross anatomy and human physiology. Applicant should have a strong background in biochemistry. Previous teaching experience is desirable. Send curriculum vitae and three letters of recommendation by 15 February to: **Dr. Donald J. Alsum, Biology Department Chairman, Saint Mary's College, Winona, Minnesota 55987.** *An Equal Opportunity/Affirmative Action Employer.*

## RESEARCH INSTITUTE/FACULTY POSITION FOR NEUROPSYCHOLOGIST MENTAL HEALTH RESEARCH INSTITUTE UNIVERSITY OF MICHIGAN

Applications are invited for a tenure-track faculty/research position at the assistant professor level (although higher ranks are not excluded) for applicants with expertise in neuropsychology and related areas of primate behavioral neuroscience, interested in noninvasive imaging applications with PET. Candidate must hold a Ph.D. or M.D. and have demonstrated expertise in independent research. The Institute maintains an active postdoctoral training program, seminar series and extensive contacts with the PET Center, and the Neuroscience and Psychobiology graduate programs. Current active research areas in the Institute include pharmacology, psychiatry, psychology, behavioral science, biochemistry and molecular biology. Opportunities are available for joint appointments with academic departments and for participation in various pre- and postdoctoral training programs. Candidates should submit, by 15 February 1984, a statement of research objectives, curriculum vitae, reprints, and the names of possible references to: **Dr. Huda Akil, Chairman, Search Committee, Mental Health Research Institute, University of Michigan, Ann Arbor, Mich. 48109.** *A nondiscriminatory, Affirmative Action Employer.*

University of Michigan Medical School, Department of Internal Medicine, **NEPHROLOGY DIVISION**, has a position available. The appointee will be expected either to commit a significant effort to research and also participate in the clinical and the education program or alternatively have primary responsibilities in the clinical area. An M.D. degree or equivalent is required. Board-qualifications in internal medicine and nephrology are preferred; however, individuals with exceptional research who do not meet these criteria will be considered. Please send inquiries to: **Richard Tannen, M.D., University Hospital, Division of Nephrology, D3239 SACB, Box 19, Ann Arbor, Mich. 48109.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.* Code 31, 253.

**DIRECTOR OF GRADUATE AND  
POSTGRADUATE STUDIES  
DEPARTMENT OF FAMILY PRACTICE  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL**

The University of Michigan Department of Family Practice is seeking to fill a faculty position. The position will carry the administrative title of Director of Graduate and Postgraduate Studies. In addition to the M.D. degree, candidates should be Board-certified in family practice and have had several years experience as practicing clinicians as well as a significant record of scholarly achievement. A senior person is being sought who has demonstrated accomplishments as an academician.

The primary role of the Director of Graduate and Postgraduate Education will be to provide scholarly and clinical leadership, both within the Family Practice Residency Program, as well as in the planning and implementation of Continuing Medical Education (CME) activities for practicing physicians. The director will have the full support of the Department of Family Practice's Educational Unit and she/he will also work closely with, and be supported by, staff in The University of Michigan's Department of Postgraduate Medicine. The director's main responsibility will involve ongoing review of the content of the residency curriculum and of the quality of the various learning experiences, including the evaluation and personal counseling of residents as they progress through the program. The Department of Family Practice has the responsibility for four major CME courses each year. As is the case of the residency program, all fundamental arrangements for these CME courses are taken care of by support personnel. The director's task will be to exert leadership in the conduct and continued development of the content, style and overall quality of these educational programs. Commensurate with the scholarly nature of the role, the director will be expected to become active in research programs. As is the case with all physician faculty within the department, the director will participate in direct patient care as his/her responsibilities and other identified activities allow.

This appointment will be within the University of Michigan's tenured-track system. Depending upon qualifications and background experience, this could be at the assistant professor/associate professor/full professor level. Salary will be competitive. Please submit résumé and inquiry to: **Terence C. Davies, M.D., Professor and Chairman, Department of Family Practice, The University of Michigan Medical School, 1018 Fuller Street, Ann Arbor, Michigan 48109-0010.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

**THE UNIVERSITY OF ADELAIDE SOUTH AUSTRALIA**  
invites applications from both men and women for the following position:

**DOUGLAS MAWSON  
CHAIR OF GEOLOGY  
(A3964) (Tenurable)**

The Council of the University has accepted a recommendation of the Committee of Review of the Departments of Geology and Mineralogy and of Economic Geology that the two Departments be amalgamated to form a single Department of Geology. The appointment to the Douglas Mawson Chair of Geology is available on 1 January, 1985 and the early establishment of this Chair has been made possible by financial support from a number of Australian mining and petroleum companies. The appointee will become the Chairman of the amalgamated Department of Geology for an initial period of five years.

The appointee should be a field oriented scientist with an overview of current activities and research trends in geology and should be capable of developing co-operative research programmes within the Department relevant to its geographic location. The fields of sedimentary basin studies and tectonics have been suggested by the Committee of Review; however, applications are invited from suitably qualified persons in any field of geology.

**SALARY PER ANNUM: A\$48,997**

**INFORMATION:** Statements setting out the conditions of appointment and providing details about the University and in particular, the Department of Geology, are obtainable from the Personnel Manager of the University. Any further information about conditions of appointment or about the University should be sought from the Personnel Manager. Further information about the prospective Department of Geology may be obtained from the Chairman of the Department of Geology and Mineralogy, Dr J B Jones.

It is University policy to encourage women to apply for consideration for appointment to, in particular, tenurable academic positions.

Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a half-time basis for a specific period of up to ten years where this is necessary for the care of children.

**APPLICATIONS,** in DUPLICATE, quoting reference number and giving full personal particulars (including citizenship), details of academic qualifications and names and addresses of three referees should reach the Personnel Manager of the University of Adelaide, G.P.O. Box 498, Adelaide, South Australia, 5001, telex UNIVAD AA 89141 not later than March 30, 1984.

**THE UNIVERSITY RESERVES THE RIGHT NOT TO MAKE AN APPOINTMENT OR TO APPOINT BY INVITATION.**

38638

# SCIENCE, ENGINEERING AND DIPLOMACY FELLOWSHIP Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the Agency for International Development (AID) and the Department of State (STATE) is seeking applicants for two or more Science, Engineering and Diplomacy Fellowships. Fellows will spend 1 year, beginning 1 September 1984, working either in the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State or in one of the Bureaus of the Agency for International Development. Other assignments may also be possible.

Prospective fellows must demonstrate exceptional competence in some area of science or engineering, be flexible, have some experience and/or a strong interest in applying knowledge toward the solution of problems in the area of foreign affairs, and have a Ph.D. or equivalent in years of experience. Awardees will work on scientific and technical subjects in international affairs: foreign policy for STATE and international development policy for AID. In general, individuals are urged to apply from any area of physical, biological, behavioral, and social science and engineering and whose experience and training is applicable to any one of the following areas: food and agriculture; health and population; nuclear nonproliferation; scientific exchange; forestry, natural resources and ecology; oceans and fisheries; communications; national security; and nutrition among others.

The fellows will serve a one-year appointment at a salary consistent with education level and experience, if possible, but not exceeding, in the case of STATE, the GS-12 level (beginning at \$30,000). A security clearance process will be initiated after selection. The clearance must be obtained before a selectee can begin work in the State Department or AID.

Deadline for receipt of application is 15 February 1984. For more information and application details, write:

**Science, Engineering and Diplomacy  
Fellows Program  
American Association for the Advancement  
of Science  
1776 Massachusetts Avenue, NW  
Washington, D.C. 20036**

## POSITIONS OPEN

### APPLIED MOLECULAR BIOLOGY

A 2-year master's program emphasizing molecular genetics, hybridoma technology, and recombinant DNA research techniques. This is a hands-on, laboratory-intensive program at University of Maryland, Baltimore County, for those with a bachelor's degree in an appropriate science.

Available to: college graduates with degrees in biology, biochemistry, or chemistry.

Fees: standard tuition. Information:

**Michael C. O'Neill**  
**Director AMB Program**  
**Department of Biological Sciences**  
**University of Maryland, Baltimore County**  
**Catonsville, Maryland 21228**  
**Telephone: 301-455-2261**

### ASSISTANT PROFESSOR

The Department of Laboratory Medicine and Pathology, University of Minnesota Medical School, announces an open position at the level of assistant professor in the Divisions of Clinical Chemistry and of Medical Technology. Candidates must have a Ph.D. degree, 2 years of experience in a clinical laboratory, and certification or eligibility with ABCC or NRCC. Teaching experience is necessary. Responsibilities include teaching clinical chemistry, assisting in the service activities of the clinical chemistry laboratory, and establishing an independent research program. Applications consisting of curriculum vitae and three letters of recommendation will be received until 15 February 1984 and may be addressed to: **Karen Karni, Ph.D., Department of Laboratory Medicine and Pathology, Box 198 Mayo Memorial Building, University of Minnesota, Minneapolis, Minn. 55455.** *The University of Minnesota is an Affirmative Action Employer and specifically invites and encourages applications from women and minorities.*

**ASSISTANT PROFESSOR**—Geographic full-time position in the Pathology Department beginning July 1984. Candidates should be boarded in pathology, have research experience, and the ability to obtain or already have extramural grant support. Research in cell biology, biochemistry, or microbiology desired. Individuals will participate in teaching of medical students and residents, as well as have clinical responsibility in the Department of Laboratory Medicine. Send curriculum vitae, brief statement of research interests, and names of three references by February 1984 to: **Samuel W. French, M.D., Professor and Chairman, Department of Pathology, Faculty of Health Sciences, University of Ottawa, 451 Smyth Road, Ottawa, Ontario, Canada K1H 8M5.**

### ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Department of Biochemistry, Louisiana State University (LSU) Medical Center, invites applications for a 12-month, tenure-track faculty position to expand the molecular biology program. Applicants should have postdoctoral experience and exhibit potential for developing a strong, independent research program. Research involving recombinant DNA, nucleic acid sequencing or other areas of molecular biology are preferred. In addition to the School of Graduate Studies, the Medical Center includes Dental, Medical, and Nursing Schools, and the School of Allied Health Professions. Interest and excellence in teaching is expected. Applicants should send curriculum vitae, bibliography, a three-page summary of research goals, and the names of three references to the following: **Robert Roskoski, Jr., Molecular Biology Search Committee, Department of Biochemistry, LSU Medical Center, New Orleans, Louisiana 70119.**

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

**FACULTY POSITION, PATHOLOGY.** Applications are invited for a senior faculty position in the Department of Pathology. The position is for a basic scientist, preferably a biochemist or cell biologist. Applicants must have outstanding research credentials and the ability to obtain or already have extramural grant support. The successful candidate will be expected to develop an independent research program as well as provide the intellectual support for other research programs and graduate studies. Applicants should submit their curriculum vitae, general statement of research plans, and the names of three references by February 1984 to: **Samuel W. French, M.D., Professor and Chairman, Department of Pathology, Faculty of Health Sciences, University of Ottawa, 451 Smyth Road, Ottawa, Ontario, Canada K1H 8M5.**

## POSITIONS OPEN

### ASSISTANT PROFESSOR

University of California, Irvine, Department of Pathology is recruiting for a faculty position at the assistant professor level. Required: M.D., must be Board-certified or eligible in anatomic pathology and eligible for licensure in California. Duties: will be in charge of the Cytology Laboratory, assist in organizing the Residency Training Program, instruct medical students and residents in anatomic pathology, and present conferences to the clinical staff and the community. Experience in cytology required; research experience desirable. Send curriculum vitae and references to: **Louis Recher, M.D., University of California, Irvine, Department of Pathology, 101 City Drive South, Orange, Calif. 92668,** by 13 February 1984. *Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR.** The Department of Oral Medicine at New York University (NYU) Dental Center is inviting applications for a tenure-track position at the assistant/associate professor level effective 1 September 1984. Applicants must have a dental degree and advanced training in either pathology, immunology, oral medicine or oral biology. The successful candidate is expected to develop a vigorous independent and collaborative dental research program and to teach clinical and didactic oral medicine. Applications with curriculum vitae should be submitted to: **Barry R. Rifkin, D.D.S., Ph.D., Department of Oral Medicine, New York University Dental Center, 421 First Avenue, New York, N.Y. 10010.** *NYU is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR OF ANATOMY**—The Department of Anatomy, Upstate Medical Center, State University of New York, Syracuse, is seeking an exceptional candidate to fill a tenure-track position. The successful candidate will be expected to pursue a vigorous research program capable of attracting extramural funding and to participate in teaching gross anatomy or histology/cell biology. While the specific area of research is not as important as excellence, preference will be given to candidates who use modern methods to analyze cell structure, function, or differentiation. Interested individuals should send a copy of their curriculum vitae, recent reprints, and the names of three references by 15 April 1984 to: **Dr. Larry F. Lemanski, Chairman, Department of Anatomy, Upstate Medical Center, State University of New York, 766 Irving Avenue, Syracuse, New York 13210.** *An Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR— MICROBIOLOGY/BIOLOGY

Tenure-track position beginning August 1984. Duties include general microbiology and introductory biology. Competence in human anatomy/physiology desirable but not essential. Ph.D. in a biological science, proven teaching ability, and a commitment to church-related undergraduate education are required. Salary dependent on educational experience and qualifications. Credentials including résumé, transcripts, and three letters of reference, should be sent by 15 March 1984 to: **Dr. Keith Miller, Chair, Department of Biology, Capital University, Columbus, Ohio 43209.** *Capital University, an institution of the American Lutheran Church, is an Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITY OF PITTSBURGH ASSISTANT PROFESSOR OF PHYSICS

A tenure-track position as assistant professor in experimental atomic physics will be available starting either in September 1984 or September 1985. Current activities in this area here at the present time include atomic collisions with emphasis on excitation transfer (M. A. Biondi, R. Johnsen), the study of Rydberg atoms and multiphoton effects in atoms (J. E. Bayfield), and the study of stratospheric processes with laboratory measurements of related cross-sections (E. C. Zipf). There is theoretical work on collisions (J. N. Bardsley), high energy radiative processes (R. H. Pratt), and multiphoton processes (P. Stehle). Preference will be given to candidates whose work would relate to the activities mentioned or to space physics or astrophysics. Credentials should indicate a high promise of establishing a strong research program in atomic physics.

Letters of application, résumés, statements of research interests, and the names of three professional references should be sent to: **The Chairman, Department of Physics and Astronomy, University of Pittsburgh, Pittsburgh, Pa. 15260.** *The University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR OF MICROBIOLOGY.** Applications are invited for a tenure-track position in the Department of Microbiology, effective September 1984. The department is interested in individuals with postdoctoral experience in the area of molecular immunology or molecular virology. Submit curriculum vitae, a résumé of past and present research, and four letters of reference to: **Chairman, Search Committee, Department of Microbiology, University of Georgia, Athens, Ga. 30602,** by 20 March 1984.

*The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

**ASSISTANT PROFESSOR—MICROBIOLOGIST.** Broadly trained with a research focus in general microbiology and microbial physiology/metabolism. Duties include undergraduate and graduate instruction and establishing an externally funded research program employing modern experimental approaches to problems of fundamental microbiological importance. Applicants must have postdoctoral experience. Salary is \$25,000 for an academic year, tenure-track appointment. Send résumé and three letters of recommendation to: **Microbiologist Search, Department of Microbiology, Michigan State University, East Lansing, Mich. 48824-1101.** *An Affirmative Action/Equal Opportunity Institution.*

The University of Michigan Medical School, Department of Pediatrics, offers a 3-year, term faculty appointment at the **ASSISTANT PROFESSOR** academic level available 1 July 1984. Responsibilities include patient care, teaching of house officers and medical students, and basic research in the field of hematology/oncology. Board-eligible/Board-certified applicants may inquire to: **Robert P. Kelch, M.D., Chairman, Department of Pediatrics, University of Michigan, Ann Arbor, Mich. 48109.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer. Code 900TP.*

**ASSISTANT PROFESSOR OF PHARMACOLOGY.** Full-time position starts 1 July 1984. Candidates must have a doctoral degree and broad teaching experience is highly desirable. Applicants should submit curriculum vitae, list of references and a statement of teaching and research experience by 1 March 1984 to: **H. Jay Lyons, Ph.D., Chairman, Search Committee, Southeastern College of Osteopathic Medicine, 1750 NE 168 Street, North Miami Beach, Fla. 33162.**

### ASSISTANT PROFESSOR OF PHYSICS The University of Akron

Applications are invited for a physics faculty position at the level of assistant professor, to begin fall 1984 or, optionally, spring 1985. The Ph.D. is required; salary is commensurate with background and experience. All qualified theorists and experimentalists will be considered, but there is particular interest in persons with the following areas of experience and inclination: Research involving polymers, NMR, or inelastic electron tunneling spectroscopy; interest in the application of computers to physics instruction or research; or interest in instruction in electronics and instrumentation. A second physics faculty position, with part-time teaching duties in computer science, may also become available; preferred physics teaching and research interests would again be as indicated above. Please send a letter of application and a current résumé, plus names and addresses of four references, by 1 March to: **Dr. Ernst von Meerwall, Chairman of Search Committee, Department of Physics, The University of Akron, Akron, Ohio 44325.** *The University of Akron is an Equal Education and Employment Institution.*

**ASSISTANT PROFESSOR OF ZOOLOGY** (tenure track) with research expertise in **evolutionary biology of marine organisms** to begin September 1984. To coordinate each semester, one semester introductory zoology course, with laboratory, for life sciences majors. Qualifications: Ph.D. in zoology and a record of innovative excellence in university teaching at the introductory level; demonstrated teaching ability will be the major criterion for the position, though continued scholarship will be required for tenure. Send curriculum vitae, three letters of reference, a statement of research interests, and reprints of publications supporting that statement by 29 February 1984 to: **Dr. James Taylor, Zoology 412 Search Committee, Spaulding Life Sciences Building, University of New Hampshire, Durham, N.H. 03824.** *An Affirmative Action/Equal Opportunity Employer.*

## HEAD

### DEPARTMENT OF BIOMEDICAL SCIENCES

The University of Illinois College of Medicine at Rockford invites applications and nominations for the position of **Professor and Head** of the Department of Biomedical Sciences. A pharmacologist or related-discipline scientist (Ph.D. and/or M.D.) with a vigorous research program and with proven ability as a scholar, teacher and administrator, is being sought to assume this position by September 1, 1984. The candidate must be experienced in medical pharmacology curriculum. This multi-disciplinary department currently possesses ten FTE faculty and a support staff of thirty with a number of extramural research programs, international collaborative arrangements, and a unique series of service laboratories that underpin clinical and veterinary medicine in a nine-county region. In addition, an AAALAC accredited biological resource unit reports to the Head. Facilities are excellent, with a wide array of instrumentation, 1-2 new tenure-track appointments at Assistant Professor level are possible.

The school is located within a residential setting in a city of approximately 150,000 population, and is a one and one-half hour drive from Chicago, Milwaukee, or Madison. The salary is highly competitive. Applications including curriculum vitae, and names of three or more references and a letter detailing qualifications should be sent by March 1, 1984 to:

**Chairman**  
**Department of Biomedical Sciences Search**  
**Committee**  
**University of Illinois College of Medicine**  
**at Rockford**  
**1601 Parkview Avenue**  
**Rockford, IL 61107**

UNIVERSITY OF ILLINOIS IS AN AFFIRMATIVE ACTION EMPLOYER. HANDICAPPED AND MINORITIES ARE URGED TO APPLY.

## GEORGIA — Augusta — Section Chief and Coordinator of Clinical Psychiatric Research.

This position will be a joint appointment at the Augusta Veterans Administration Center and the Department of Psychiatry, Medical College of Georgia. The position requires supervision of an appropriate clinical section, along with the overall development, organization, and administration of clinical research services for the Psychiatric Service, Augusta VAMC. The position will require interdigitation of basic and clinical research to improve patient care capability and improve clinical procedures. Applicants should be board-certified in Psychiatry, eligible for medical license in Georgia, have demonstrated excellence in clinical patient care and research productivity, and academic qualifications for a senior level faculty appointment. Contact: **E. Mansell Pattison, M.D., Professor and Chairman, Department of Psychiatry and Health Behavior, Medical College of Georgia, Augusta, GA 30912, (404) 828-3284.** The Veterans Administration and the Medical College of Georgia are EOE employers.

## Dean

### College of Biological Sciences The Ohio State University

The Ohio State University invites nominations and applications for the position of Dean of the College of Biological Sciences. The College consists of the six departments of Biochemistry, Botany, Entomology, Genetics, Microbiology and Zoology. Included in the college is an undergraduate program in General Biology and two interdisciplinary graduate programs in Molecular, Cellular and Developmental Biology and Environmental Biology.

The Dean provides leadership as the chief executive of the College and promotes the goals of the College, departments and programs; the Dean reports to the Provost of the University. Qualifications for the position include a distinguished scholarly record in research and teaching, plus demonstrated leadership and administrative ability. The successful candidate must qualify for appointment to one of the departments at the level of Professor. The Deanship is a twelve-month position.

Nominations or letters of application, curriculum vitae and names, addresses and telephone numbers of four references must be received by March 1, 1984. Send materials to

**Dr. Gary L. Floyd, Chair**  
**Search Committee for a Dean**  
**of the College of Biological Sciences**  
**Office of Academic Affairs**  
**203 Bricker Hall**  
**190 N. Oval Mall**  
**Columbus, Ohio 43210**

*The Ohio State University is an Equal Opportunity  
Affirmative Action Employer*

## CONFERENCE ON INORGANIC CONSTITUENTS IN DRINKING WATER AND CARDIOVASCULAR DISEASE UNIVERSITY OF MASSACHUSETTS

MAY 1-3, 1984

This U.S. EPA-sponsored conference will be held May 1-3, 1984 at the University of Massachusetts, Amherst, MA. The conference will examine the epidemiological studies concerning whether elevated levels of sodium in drinking water affect blood pressure, the hard-water-softwater controversy in CVD etiology, the effects of heavy metals (e.g., lead, cadmium, barium) on the development of hypertension, the chlorination of drinking water as a risk factor in CVD, and the uptake of minerals/metals into food from water. For further information on program content, contact Edward J. Calabrese, Ph.D., School of Health Sciences, Division of Public Health, University of Massachusetts, Amherst, MA 01003; telephone: (413) 545-2797. For conference programs and registration information, contact University Conference Services, CS84-121, 918 Campus Center, University of Massachusetts, Amherst, MA 01003; telephone: (413) 549-6000, Extension 435.

## PULMONARY PHYSIOLOGIST

The Toxicology Research and Testing Program of the National Institute of Environmental Health Sciences, Research Triangle Park, N.C., has a permanent position for a Pulmonary Physiologist with a salary range of \$34,930 to \$45,406 per annum.

### The successful candidate will be expected to:

1. Formulate and design studies to evaluate the toxic potential of chemicals in small laboratory animals. Chemicals are selected on the basis of their public and industrial health significance and are chemicals to which individuals would be expected to be exposed by inhalation.
2. Develop and validate procedures for studying the inhalation toxicology of chemicals using methods for pulmonary function testing.

### Candidates are required to have the following:

1. Ph.D. degree or its equivalent in physiology, pharmacology, toxicology or other allied subject where training was focused on in vivo mammalian toxicology.
2. Four or more years of postdoctoral research experience in pulmonary function testing with an emphasis on inhalation toxicology.
3. Knowledge of pulmonary physiology, mammalian respiratory mechanics, and the general methods and principles of inhalation toxicology.
4. Ability to communicate effectively both orally and in writing.
5. Relevant publications in scientific journals.

U.S. citizenship required. Applicants must be found to be eligible on a Civil Service Register.

A curriculum vitae and names of three persons we can contact for references should be sent to: NIEHS Personnel Office, P.O. Box 12233, Research Triangle Park, N.C. 27709 ATTN: N. Lou Rozier (T-100). Further information can be obtained from Ms. Rozier by calling 919/541-7513. Applications must be received no later than February 13, 1984.

*THE NIEHS IS AN EQUAL OPPORTUNITY EMPLOYER.*



## NATIONAL SCIENCE FOUNDATION

NSF's Division of Physiology, Cellular and Molecular Biology is seeking applicants for six (6) Program Director positions which periodically become available. These positions are excepted from the competitive civil service and are filled on a one or two year basis under the provisions of NSF's Rotator Program. The programs are as follows:

- **Cell Biology**—includes research directed toward understanding the mechanisms underlying the growth, division and functions of prokaryotic and eukaryotic cells. Announcement Number EX 84-12 S.
- **Cellular Physiology**—includes areas related to plant or animal hormones or immunobiology or muscle physiology. Announcement Number EX 83-26 S.
- **Developmental Biology**—focuses on the basic mechanisms underlying development throughout the life span of animals, plants and microorganisms. Announcement Number EX 83-25 S.
- **Biochemistry**—provides support for research on the chemical composition and structure of biological molecules and the molecular parameters describing their functions. Announcement Number EX 84-13 S.
- **Biological Instrumentation**—provides support for the development of new instrumentation and for the purchase of major research instruments for multi-user groups. Announcement Number EX 83-29 S.
- **Metabolic Biology**—THIS POSITION WILL BE FILLED ON EITHER A PERMANENT OR ROTATOR BASIS. Studies the chemical changes and molecular and physiological processes in plant, microbial, and animal systems through which new material is assimilated and transformed and by which energy is provided for vital processes. Announcement Number EX 84-14 S (rotator) or EX 84-15 S (permanent).

The salary ranges from \$40,000 to \$65,000 (limited by statute to \$63,800) per annum. Applicants should have a Ph.D. or equivalent experience. In addition, at least 8 years of successful scientific research experience beyond the Ph.D. and a broad understanding of current research in physiology, cellular or molecular biology. Some administrative experience is also desirable.

Resumes indicating current salary should be sent to the National Science Foundation, Personnel Administration Branch, 1800 G St., N.W., Room 212, Washington, D.C. 20550. Specify Announcement Number. Attn: Catherine Hande. For further information call 202/357-7840. For technical information about these positions contact Dr. James H. Brown, Division Director, 202/357-9400 or Dr. Mary E. Clutter, Section Head, 202/357-7905. NSF is an Equal Opportunity Employer.

## SABBATICAL LEAVE OPPORTUNITIES

The Board on Science and Technology for International Development of the National Academy of Sciences/National Research Council seeks experienced persons interested in dedicating half time to assist in developing and administering a research grants program in developing countries.

Position responsibilities include proposal review, preparation of background material for grantees and extensive travel to Asian, African and Latin American research institutions, to assist with project preparation and to evaluate ongoing work. French or Spanish language capability and previous developing country experience are highly desirable.

Positions are available for six months or more only for specialists in areas related to the program areas of the research grants program:

- **Grain Amaranth (agronomy, food technology)**
- **Fast Growing, Nitrogen-Fixing Trees (forestry, agronomy, microbiology)**
- **Biological Nitrogen Fixation (microbiology, agronomy)**
- **Mosquito Vector Field Studies (vector biology, ecology)**
- **Rapid Epidemiologic Assessments (epidemiology, public health)**
- **Causes of Acute Respiratory Infections in Children (virology, bacteriology, epidemiology).**

Please direct inquiries to: **Dr. Michael P. Greene, Associate Director, Board on Science and Technology for International Development, National Research Council, 2101 Constitution Avenue N.W., Washington, D.C. 20418.**

An Equal Opportunity Employer

## POSITIONS OPEN

### ASSISTANT PROFESSOR Department of Physiology and Biophysics The University of Iowa College of Medicine

Applications are invited for new tenure-track positions at the assistant professor level available on or after 1 June 1984. Applicants must have the Ph.D. and/or M.D. degree and at least 2 years of postdoctoral experience, with a strong record of research productivity. We seek individuals with interests and expertise in membrane structure and function, cellular neurobiology and neurochemistry, or mechanisms of endocrine regulation. Experience in cellular and molecular biological approaches to gene and membrane regulation desirable. Screening will begin 15 February 1984. Please send curriculum vitae, description of research plans, and the names of three references to: **Dr. Robert E. Fellows, Department of Physiology and Biophysics, The University of Iowa, Iowa City, Iowa 52242.**

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

**ASSISTANT PROFESSOR OF WILDLIFE SCIENCE.** Tenure-track position beginning 15 August 1984 for a wildlife biologist with expertise in avian biology. Teaching responsibilities include courses in principles of wildlife management and ornithology and a graduate course of the incumbent's choosing. Research interests should complement the basic and applied needs of resource agencies in the region. Send résumé, transcripts, three letters of reference, and a statement of teaching/research objectives by 1 February 1984 to: **Erik K. Fritzell, Search Chair, School of Forestry, Fisheries and Wildlife, 112 Stephens Hall, University of Missouri-Columbia, Columbia, Mo. 65211; telephone: 314-882-3436.**

### ASSISTANT PROFESSOR OF WOOD PHYSICS

Forest Products Laboratory and Department of Forestry and Resource Management. Conduct research and academic instruction for undergraduate and graduate students in the area of wood physics and physical processing. Knowledge in wood science and technology, and/or physics or related field; Ph.D. or near completion. Position available 1 July 1984. Send résumé, university transcripts, and names of three references by 1 March 1984 to: **Chair, Wood Physics Search Committee, University of California-Berkeley, Forest Products Laboratory, 47th and Hoffman Boulevard, Richmond, Calif. 94804. The University of California is an Equal Opportunity/Affirmative Action Employer.**

### ASSOCIATE DIRECTOR

The State University Research Center, State University of New York (SUNY) at Oswego, seeks applications from experienced aquatic scientists to assist with the development and direction of environmental/ecological research. Candidates should have a Ph.D., experience in research development and administration, and special interest in formulating and directing research programs on aquatic trace organic/inorganic contaminants; Great Lakes/marine and/or acid precipitation field and laboratory experience desirable. The successful candidate will also be expected to develop his/her own research programs. Non-tenure position, salary mid to high \$20,000's; starting date: July 1984, pending final authorization.

Completed applications, including curriculum vitae and three letters of recommendation, should be submitted by 15 February 1984 to:

**Dr. A. Stamm  
Chair, Search Committee  
Research Center, King Hall  
SUNY at Oswego  
Oswego, N.Y. 13126**

*An Equal Opportunity Employer*

### CELL BIOLOGIST

The Department of Physiology of the University of California, San Francisco, seeks to fill a tenure-track faculty position at the rank of assistant professor. Individuals should have a research program in mammalian cell biology and be able to relate to members of the department as well as participate in a new Interdepartmental Program in Cell Biology. Send curriculum vitae, a brief statement of research interests, and three letters of reference to:

**Dr. John A. Williams  
Department of Physiology  
University of California, San Francisco  
San Francisco, Calif. 94143**

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

## POSITIONS OPEN

**ASSOCIATE CHIEF OF STAFF FOR RESEARCH** position available at the Portland VA Medical Center, affiliated with the Oregon Health Sciences University. Responsibilities include administration of growing multidisciplinary research program, coordinating move to new hospital under construction, and maintaining liaison with affiliated programs. Candidates should have a record of nationally recognized ongoing research, background in basic and clinical sciences, and previous administrative experience. M.D.'s preferred. Application deadline: 1 March 1984. Send letter of interest, curriculum vitae, and list of three references to: **Daniel E. Casey, M.D., Chairman, ACOS/Research Search Committee, Psychiatry Service (116A), 3710 SW U.S. Veterans Hospital Road, P.O. Box 1034, Portland, Ore. 97207. Equal Opportunity Employer.**

**ASSOCIATE CURATOR OF ENTOMOLOGY:** Carnegie Museum of Natural History, Carnegie Institute, has an opening for a lepidopterist, with a specialist in Heterocera preferred. Duties include administration of the Section of Entomology with four full-time staff, curation and management of over five million specimens, participation in exhibition, education and public service programs, and conducting field work and quality research. Ph.D. and significant curatorial and research experience required. Salary commensurate with experience. Applicants should send résumé, selected reprints, and names, addresses, and telephone numbers of at least five references to: **Dr. Robert M. West, Director, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pa. 15213.** Applications accepted until 30 March 1984. *Carnegie Institute is an Equal Opportunity Employer.*

### DEPARTMENT OF BIOCHEMISTRY SCHOOL OF MEDICINE UNIVERSITY OF NORTH CAROLINA CHAPEL HILL, N.C. 27514

**TENURE-TRACK POSITION.** Research should involve a molecular biological approach to developmental- or neuro-biochemistry. Rank will depend on experience. A commitment to teaching is required. Send curriculum vitae, the names of three references, and a research plan to: **Nancy H. Nye, at the above address. Minorities and women are encouraged to identify themselves voluntarily. Affirmative Action/Equal Opportunity Employer.**

**CELL PHYSIOLOGIST/VERTEBRATE PHYSIOLOGIST, Ph.D.**—Position available 1 September 1984. Duties will include teaching undergraduate courses in general biology, cell and molecular biology, and vertebrate physiology. Salary and rank commensurate with experience. Minority applicants are strongly encouraged to apply. *Kennesaw College is an Equal Opportunity/Affirmative Action Employer.* Submit curriculum vitae and references to: **Dr. Arthur Dunning, Academic Affairs, Kennesaw College, P.O. Box 444, Marietta, Georgia 30061.**

### DEAN FOR HUMANITIES AND SCIENCES UNIVERSITY OF SOUTH CAROLINA AT SPARTANBURG

The University of South Carolina at Spartanburg (USCS) is accepting applications and nominations for the position of Dean of Humanities and Sciences. The institution is organized into four schools, the largest being the School of Humanities and Sciences. It has 86 faculty members and is organized into three divisions: Social and Behavioral Sciences, Science and Math, and fine arts, Languages and Literature. The dean reports to the Vice Chancellor for Academic Affairs.

Responsibilities: The dean is responsible for the academic programs and the budget of the school, for hiring and evaluating faculty, and for community relations.

Qualifications: Applicants must have a doctoral degree within a discipline in humanities and sciences and must be able to provide leadership in developing a strong science program. Experience is also necessary in grant writing and academic administration.

Deadline and starting date: All applications must be received by 31 January 1984. Starting date is 1 July 1984. Submit résumé to: **Dr. Conway Henderson, Chair, Dean Search Committee, USCS, Spartanburg, South Carolina 29303.**

*The University of South Carolina at Spartanburg within the USC System is an Equal Opportunity/Affirmative Action Employer.*

## DEPARTMENT HEAD

### DEPARTMENT OF BIOLOGICAL SCIENCES

#### DREXEL UNIVERSITY

Applications and nominations are invited for the position of Head of the Department of Biological Sciences beginning September 1, 1984. Drexel University, which emphasizes programs in science and technology and has been a leader in cooperative education for more than sixty years, has approximately 12,000 students in seven colleges. It is situated in the center of Philadelphia not far from a variety of medical schools and other universities. The Biological Sciences Department, one of four departments offering B.S., M.S., and Ph.D. degrees in the College of Science, is to be expanded considerably in the direction of molecular biology, biochemistry, cell biology, immunology, and other aspects of modern biology. The new Department Head will have the responsibility for recruiting a senior faculty member to fill an endowed Chair and to recruit a number of other persons to fill tenure track positions within the next few years.

The successful candidate is expected to (a) have an earned doctorate in the biological sciences or in a related field; (b) be qualified for tenure as a full professor; (c) have had significant scientific accomplishments; (d) be actively engaged in funded research; (e) have knowledge of funding sources generally in the biological sciences; (f) be experienced in directing graduate research in a Ph.D.-granting department; and (g) show evidence of leadership and of a commitment to a strong graduate and undergraduate program in modern biological science.

Applications and correspondence should be addressed to Dr. William R. Nes, Chairperson, Department Head Search Committee, Department of Biological Sciences, Drexel University, Philadelphia, Pennsylvania, 19104. Applicants should include the names and addresses of three to five persons from whom they will request letters of recommendation.

Drexel University is an Affirmative Action/Equal Opportunity Employer

## DIRECTOR

### DIVISION OF ENVIRONMENTAL HEALTH AND SAFETY

#### University of Florida

##### Duties:

Administration of a University-wide, centrally coordinated, environmental health and safety program with a staff of 23. The basic objectives of the program are to minimize injury to faculty, staff, students and visitors, and to provide a safe and healthy environment in which the activities of the University can be pursued.

The Division is composed of three functional departments: Occupational Health and Safety, Radiation Control and Radiological Services, and Biological Safety. Fire Equipment Services and the Pest Control Department also report to the Division.

The University of Florida is a land-grant institution with over 34,000 students enrolled in more than 20 colleges and schools. The campus includes agricultural and engineering experiment stations as well as colleges of agriculture, engineering, liberal arts and sciences, medicine, pharmacy, and veterinary medicine, and other academic and research units.

##### Qualifications:

Candidates should have earned the Ph.D. in an area such as radiation biology, radiation chemistry, health physics, biochemistry, toxicology, etc., and qualify for a faculty appointment in an appropriate academic department. Training/experience in radiation control or biological safety is desirable.

Inquiries, vitae, and the names of at least three references should be submitted by 15 February 1984 to:

Dr. F. E. Dunnam, Chairman  
EHS Director Search Committee  
204 Tigert Hall  
University of Florida  
Gainesville, Florida 32611

The University of Florida is an Equal Employment Opportunity, Affirmative Action Employer.

## DEAN OF NATURAL SCIENCES

**POSITION:** The University of California, Santa Cruz, is seeking nominations and applications for the position of Dean of Natural Sciences. The Dean works closely with the Academic Vice-Chancellor to provide intellectual and administrative leadership to the 110 FTE faculty of the Natural Science Division. Board of Studies comprising the Division are Astronomy/Astrophysics, Biology, Chemistry, Computer and Information Sciences, Earth Sciences, Mathematics and Physics.

**NATURAL SCIENCES AT UCSC:** Of the 6,200 undergraduate students enrolled at UCSC, the fractional number majoring in the natural sciences has grown rapidly in the past few years so that of the declared undergraduate majors, 43% are presently in the natural sciences. A small but vigorous graduate school enrolls 520 students, 57% of whom are in the natural sciences; Ph.D. programs are offered in each of the Boards of Studies listed above. UCSC is the headquarters of several UC organized research units, viz, the Lick Observatory, the Santa Cruz Institute for Particle Physics and the Center for Marine Studies as well as the Richter Seismological Laboratory. A Computer Engineering Program, involving the addition of several new faculty FTE, is approved to start in the fall of 1984.

**QUALIFICATIONS:** Candidates should have an earned doctorate and background to merit appointment as full professor within a natural sciences discipline, and should present evidence of having achieved a distinguished scientific career in research and teaching. Evidence demonstrating effective administrative leadership is also required.

**TERMS OF APPOINTMENT:** The position normally carries a term of 5 years and is renewable, subject to the prescribed administrative review.

**SALARY:** Negotiable and commensurate with qualifications and experience.

**APPLICATION:** Applicants should submit a vita, bibliography, a cover letter addressing their qualifications and the names and addresses of three referees to: Dr. Robert P. Kraft, Chair, Search Committee for the Dean of Natural Sciences, c/o Office of Academic Personnel (attn. Ms. Kay House), 350 McHenry Library, UCSC, Santa Cruz, California, 95064. Application deadline is February 15, 1984.

UCSC is an EEO/AA Employer

**GEORGIA—Augusta—Chief of Psychiatry, Augusta Veterans Administration Medical Center.** This is a joint appointment with the Department of Psychiatry, Medical College of Georgia. The position requires overall administration of two divisions, including 500 psychiatric beds, outpatient and community services. Specialized clinical units include: geropsychiatry, behavioral medicine, milieu therapy, neuropsychopharmacology, medicine/psychiatry, substance abuse, psychiatric ICU, transitional hospital care, and ambulatory care. All clinical programs are fully integrated components of the teaching and research programs of MCG. Applicants should be board-certified in Psychiatry, eligible for medical license in Georgia, have demonstrated excellence in clinical administration, and have academic qualifications for a senior level faculty appointment. Contact: **E. Mansell Pattison, M.D., Professor and Chairman, Department of Psychiatry, Medical College of Georgia, Augusta, GA 30912.** The Veterans Administration and the Medical College of Georgia are EOE employers.

Cetus Corporation, a leader in biotechnology, offers the following career opportunities.

## SCIENTISTS

We are seeking an immunologist with experience in generating monoclonal antibodies against human tumor associated antigens. The successful candidate will assume responsibility for an existing antitumor monoclonal antibody program and provide scientific direction for an excellent technical group working in a well-equipped laboratory. Duties will include design and execution of immunization and screening strategies directed toward the production of tumor selective antibodies. The candidate should have a Ph.D. and directly related experience with human tumor immunology and hybridoma technology. Job #83184.

An additional scientist position is available for an individual with experience in the following areas: sterilization of therapeutically useful bioactive peptides and proteins; formulation of parenteral/topical products; scale-up of protein purification techniques. A Ph.D. in Protein Chemistry, Pharmaceutical Chemistry or related discipline or equivalent industrial experience is required. Job #83084.

## RESEARCH ASSISTANT/ASSOCIATE

We are seeking a Research Assistant/Associate in protein chemistry/applied enzymology/applied biochemistry to assist in the development of downstream processes of bioactive peptides and enzymes. The position requires a B.S. or M.S. in Organic Chemistry, Biochemistry or Protein Chemistry with 1 to 3 years of research experience. Job #83097.

These are opportunities to join a dynamic growth oriented company that encourages professional and personal growth. We offer an excellent benefit and compensation package. For consideration, interested candidates should respond with a current resume, indicating job number, in confidence to:

Cetus Corporation  
1400 Fifty-Third Street  
Emeryville, CA 94608

An equal opportunity employer m/f/handicapped.



## POSITIONS OPEN

### UNIVERSITY OF ILLINOIS AT CHICAGO

The Department of Biological Sciences invites applications for four tenure-track positions beginning September 1984. Preference will be given to candidates with postdoctoral experience and whose research programs can expand the department's graduate program in the following general areas.

- 1) Mammalian physiology (associate or assistant professor),
- 2) Plant cell and molecular biology (assistant professor),
- 3) Molecular biology of eukaryotic chromosomes (assistant professor),
- 4) Structural biology (assistant professor whose research involves vertebrates at the ultrastructural level and who will take a major role in the graduate program in electron microscopy).

Responsibilities include the supervision of M.S. and Ph.D. students. Curriculum vitae, reprints, a statement of research plans, and three letters of reference should be sent to: **Dr. S. K. Shapiro, Head, Department of Biological Sciences, University of Illinois at Chicago, Box 4348, Chicago, Ill. 60680.** Closing date: 6 February 1984. Final approval of these appointments is contingent upon expected budgetary allocation. *The University of Illinois at Chicago is an Equal Opportunity/Affirmative Action Employer.*

**BIOLOGY.** Assistant professor, tenure-track position available August 1984, requires Ph.D., team teach general biology and two of the following areas: comparative vertebrate anatomy, developmental biology, and invertebrate biology. Send curriculum vitae and three letters of reference to: **Dr. Dan Bowen, Chairman, Biology Department, Benedictine College, Atchison, Kans. 66002.**

**CHAIRPERSON, CHEMISTRY DEPARTMENT.** Nominations or applications by 29 February deadline. Person with outstanding record. Applications should include applicant's résumé, transcripts, and names, addresses, and telephone numbers of three references. Send nominations or applications to: **A. G. Pinkus, Department of Chemistry, Baylor University, Waco, Texas 76798.**

*Equal Opportunity Employer*

### CHAIRMANSHIP POSITION

The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, invites applications for the position of professor and chairman of the Department of Genetics. Applicants should have an outstanding record of accomplishments in molecular genetics and an interest in expanding the current department by recruiting faculty in the area of molecular biology. New facilities for the department will be available in the near future. Applicants should send a letter outlining their research interests, their résumé, and five letters of reference from individuals familiar with their work to: **Dr. William J. Lennarz, Chairman of the Genetics Chair Search Committee, Department of Biochemistry and Molecular Biology, MDAH-Box 117, The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, 6723 Bertner Avenue, Houston, Texas 77030.** Deadline for applications is 1 March 1984. *An Affirmative Action/Equal Opportunity Employer.*

### ILLINOIS STATE UNIVERSITY (ISU)

**DEVELOPMENTAL BIOLOGIST.** Assistant professor, tenure track. Preference given to those using contemporary molecular techniques to study eukaryotic systems. The candidate is expected to establish a vigorous research program capable of attracting extramural funding. Responsibilities include supervising M.S. and Ph.D. students and teaching a course in developmental biology and a graduate course in specialty area. Postdoctoral experience preferred.

**ECOLOGIST.** Temporary, 1-year appointment (possibility for second year). Assistant professor. Teaching in ecology program. Opportunity to collaborate in ongoing research.

Send curriculum vitae, statement of research plans, reprints, graduate transcripts, and three letters of recommendation to: **Search Committee, Department of Biological Sciences, Illinois State University, Normal, Illinois 61761,** by 29 February 1984.

*ISU is an Equal Opportunity/Affirmative Action University.*

## POSITIONS OPEN

### CHAIRMAN POSITION (Tenure Track) BASIC PHARMACEUTICAL SCIENCES DEPARTMENT UNIVERSITY OF SOUTH CAROLINA COLLEGE OF PHARMACY

**Applicant qualifications:** Research experience in either pharmaceuticals, medicinal chemistry, or pharmacology and an outstanding record in research and grant awards. **Position requirements:** Conduct research, assist in faculty grant requests, supervise graduate students, teach and administer the department. **Application procedures:** Send curriculum vitae, recent reprints, and three references by 1 March 1984 to: **Dr. J. W. Kosh, Search Committee Chairman, College of Pharmacy, University of South Carolina, Columbia, S.C. 29208.** *Affirmative Action/Equal Opportunity Employer.*

### CURATORIAL POSITION IN MAMMALOLOGY

Applications are solicited for a curatorial position in mammalogy in the Natural History Museum of Los Angeles County. Responsibilities consist of the conduct of collection-oriented research on the systematics of nonmarine mammals, active participation in collection management, and participation in public programs of the Museum. Applicants must possess a doctorate or provide certification that it will be granted within a short time. Position will be filled at the level of the best-qualified candidate. Starting curatorial salaries: assistant, \$20,176; associate, \$23,794; full, \$30,276. Applications including names of three references should be sent before 1 March 1984 to: **Dr. Daniel M. Cohen, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, Calif. 90007; telephone: 213-744-3367.** *An Equal Opportunity Employer.*

### DEVELOPMENTAL BIOLOGIST

The Department of Zoology at the University of California at Davis has a temporary 4-year position for a visiting lecturer beginning fall 1984. The salary range is \$19,848 to \$21,720. The appointee will teach lecture and laboratory courses in developmental biology to undergraduates and will have the opportunity to participate in the research of one of the members of the faculty. Research interest in the role of the cell surface and extracellular matrix in morphogenesis is particularly desirable, although experience in any aspect of developmental biology will be considered. Requirements: Ph.D. degree and preferably experience in teaching. Deadline for receipt of applications is 1 April 1984. Send curriculum vitae and three letters of reference to:

**Dr. D. W. Deamer, Chairman  
Department of Zoology  
University of California  
Davis, Calif. 95616**

### INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS (ICRISAT) near Hyderabad, India

needs

### ENTOMOLOGIST (Groundnuts)

Responsible to identify the insect problem in SAT and to determine the approaches whereby short- and medium-term research is likely to be most fruitful. Expected to conduct pest surveys and loss assessment and formulate programs of work leading to control of pests on groundnut crops. Will work in close association with national agricultural research programs and have an important input, particularly in host-plant resistance studies, to the ICRISAT Center program. Research experience in tropical or developing countries desirable. Qualifications: Ph.D. in entomology with an excellent academic record evidenced through formal publications and scientific papers. Should have experience in research in insect ecology and integrated pest management, experience in research work on legumes in a tropical country, and an interest in host-plant resistance and virus/vector relationships.

Salary for the position is at principal staff level, according to qualifications and experience, with attractive fringe benefits. Work would be centered at ICRISAT Center (1394 ha) near Hyderabad, India, where excellent scientific and technical support is available. Hyderabad has international airline connections, and living conditions are good.

Send résumé and names of three referees by 17 February 1984 to: **Director General, ICRISAT Patancheru P.O. 502 324, A.P., India.**

## POSITIONS OPEN

### DIRECTOR, CLINICAL PHARMACOLOGY PROGRAM

Director, Clinical Pharmacology Program, in Comprehensive Cancer Center and Department of Pharmacology at the University of Alabama in Birmingham. The program will initially include a chair in clinical pharmacology and two additional faculty positions. Candidate must have an M.D. degree, several years of pharmacology research experience (laboratory or clinical), and a research effort in oncology. Send curriculum vitae to: **Albert F. LoBuglio, M.D., Director, Comprehensive Cancer Center, University of Alabama in Birmingham, University Station, Birmingham, Ala. 35294.** *An Equal Opportunity/Affirmative Action Employer.*

### DIRECTOR OF MANUFACTURING IMMUNODIAGNOSTICS

Small, rapidly growing public company located in San Francisco Bay area has immediate opening for director of manufacturing. Should be familiar with production planning, scheduling, and coordination. Candidates should have minimum of 5 years of experience. Experience in production of antibodies and immunoassay systems preferred. Salary commensurate with experience. Submit résumé with salary history. **Box 7, SCIENCE.**

**EPIDEMIOLOGIST.** Seek individual with recent Ph.D., M.D., or equivalent for appointment as assistant professor of epidemiology to begin fall semester 1984. This is a tenure-track, state-funded position. Recruitment is directed towards epidemiologists with interests that augment and extend research concerns of present faculty. Research interests of current faculty now include arthropod-borne virus diseases, environmental carcinogenesis, psychosocial factors and heart disease, occupational diseases, and genetic epidemiology. Submit curriculum vitae, transcripts, publications, names and addresses of three reference persons, and a brief statement describing research teaching interests to: **Professor W. C. Reeves, School of Public Health, University of California, Berkeley, California 94720.** Deadline for application is 15 March 1984. *The University is an Equal Opportunity/Affirmative Action Employer.*

### WORLD RESOURCES REPORT EDITOR-IN-CHIEF

The World Resources Institute and the International Institute for Environment and Development seek applications for an editor-in-chief for a new annual publication, the *World Resources Report*, which will be headquartered in Washington, D.C. The Report will provide timely, objective information on world resource, environmental and population issues for an international audience. It will contain information on resource conditions, trends, and policy developments and will present statistical indicators by country and region.

The editor-in-chief must have strong writing and editing skills, with the ability to synthesize and organize a large body of information, much of it technical, and to communicate that information effectively to a wide and diverse audience, much of it non-technical. Knowledge of the scientific and policy dimensions of international resource, environmental and population issues is essential. The editor-in-chief must also show competence to manage a small staff, operate within a defined budget, effectively use editorial boards and advisers, produce the Report on schedule, and promote its international distribution and sale.

Candidates should send complete résumé, publication credits, and the names of references to: **World Resources Institute, 1735 New York Avenue, NW, Washington, D.C. 20006.**

**EVOLUTION/BEHAVIOR/ECOLOGY.** Tenure-track assistant professorship for fall 1984. The candidate should have a strong research program and a commitment to undergraduate education. The position includes alternate-year directorship of the Mountain Lake Biological Station. Send curriculum vitae, research and teaching proposals, and three letters of recommendation to: **Professor J. J. Murray, Search Committee Chairman, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, Va. 22901.** *The University is an Equal Opportunity/Affirmative Action Employer.*



# Allelix<sup>INC</sup>

## MICROBIOLOGISTS

Allelix Inc., Canada's first major biotechnology company, is seeking microbiologists to work in fermentation microbiology and plant cell culture. The research will involve fermentation of a variety of microorganisms and plant cells, isolation of mutant strains of bacteria and isolation and identification of microbial and plant cell products. Applicants should have a Ph.D. in microbiology or plant biology and research experience in industry, a university or a research institute.

The founders of Allelix have provided strong financial backing. Research is conducted in a modern, well-equipped laboratory near Toronto, a dynamic, multi-cultural city offering a full scope of activities and interests. Four major universities are easily accessible. Salaries and benefits are at fully competitive levels.

Interested candidates are invited to send complete résumés, including three references and quoting file number 0060 to:

Dr. D. C. Burke  
Allelix Inc.  
6850 Goreway Drive  
Mississauga, Ontario  
L4V 1P1 Canada

# Biologicals

Lederle Laboratories, a division of American Cyanamid Company in Pearl River, New York, is looking for a manager in the area of Biologicals.

The successful applicant will have a Ph.D. in Microbiology or a related field and post-doctoral research plus a minimum of five years' industrial experience, including supervision. Superior communication skills are required.

The candidate selected will provide overall direction for vaccine development, following through to product license. Responsibilities will include management of a department of scientists working on human vaccine development, including products in both viral and bacterial groupings. There will be considerable interface with Quality Control, Research, Production, and Marketing groups.

Lederle Laboratories is located in Rockland County, 30 miles NW of New York, and convenient to a broad range of cultural, recreational and academic pursuits.

Please send resume, in confidence, to Nancy Levine, Professional Employment Coordinator, Lederle Laboratories, Pearl River, NY 10965.



American Cyanamid Co.  
Pearl River, NY 10965  
An Equal Opportunity Employer Male/Female

## STATE UNIVERSITY AT BUFFALO BIOLOGICAL SCIENCES

### FACULTY POSITION

A tenure track position at the rank of Assistant Professor is scheduled to become available effective September 1, 1984. Candidates will be expected to contribute to Departmental Research Programs which currently exist in the following areas: Cell & Developmental Biology; Genetics & Molecular Biology; Comparative, Cell & Endocrine Physiology; and Ecology.

Successful candidates will be expected to demonstrate experience in a productive research program and be able to describe in detail plans for future research activities.

Applicants must have two to three years of post-doctoral experience in their area of expertise and be able to demonstrate a potential for establishing an independent research program along with the ability for successful classroom teaching.

To apply, candidates must submit a curriculum vitae, including a statement of research background and teaching experience, and at least three letters of reference to: **Dr. Darrell Doyle, Chairman, Department of Biological Sciences, 109 Cooke Hall, State University at Buffalo, Buffalo, N.Y. 14260.** Application deadline is February 18, 1984.

### TEACHING AND RESEARCH ASSISTANTSHIPS

Graduate Teaching/Research Assistantships are available in the Department of Biological Sciences which carry a ten month stipend of up to \$7200. Summer appointments up to \$1000 are also available. Areas of research strength within the Department include: Cell & Developmental Biology; Cell, Comparative, & Endocrine Physiology; Molecular Biology & Genetics; and Ecology. For information and application write: **Graduate Program, State University at Buffalo, Department of Biological Sciences, 109 Cooke Hall, Buffalo, N.Y. 14260.**

The International Laboratory for Research on Animal Diseases (ILRAD), Nairobi, Kenya, is an internationally funded institution with the mandate to develop improved methods of control for two major diseases of livestock, trypanosomiasis and theileriosis. The multidisciplinary research programme includes biochemistry, molecular biology, immunology, cell biology, pathology and parasitology, and supporting units. Applications for the following postdoctoral (PD) positions and research associate (RA) position are invited.

#### MOLECULAR BIOLOGISTS—PD/L2/83/3 and PD/L2/83/4 (two positions)

To contribute to the molecular biology program studying gene structure and expression in haemoparasitic trypanosomes and *Theileria* parasites. Applicants should have recently received their Ph.D.'s in biochemistry or molecular biology and have at least 3 years of experience with recombinant DNA technology. Dideoxy DNA sequencing experience would be an advantage.

#### RESEARCH ASSOCIATE—RA/L2/83/5

To support the molecular biology program studying gene structure and expression in the haemoparasites *Trypanosoma* and *Theileria*. Applicants should have a good honours science degree and 5 years of postgraduate laboratory experience, including direct experience in M13 cloning and sequencing techniques. Additional recombinant DNA experience would be an advantage.

#### IMMUNOLOGIST—PD/L4/83/5

To study the influence of African trypanosomes on the differentiation of B-lymphocytes to high-rate antibody secreting cells. Applicants should have recently completed a Ph.D. in immunology and have experience with analysis of B-cell differentiation.

The above positions are international staff positions and salaries will be paid in U.S. dollars. Initial salary levels will be determined by qualifications and experience. Moving, housing, commutation, and education allowances are paid and there are medical and retirement benefits. Applications should include current curriculum vitae and the names and addresses of three referees and cite the position reference number. Send to:

Chief Personnel Officer  
ILRAD  
P.O. Box 30709  
Nairobi, Kenya

## POSITIONS OPEN

### EXECUTIVE DIRECTOR AMERICAN SOCIETY FOR MICROBIOLOGY

The position of Executive Director will become available on 1 July 1984. The appointee will be ultimately responsible for directing the Society's Washington headquarters, for insuring that the policies developed by the elected officers and the council policy committee of the Society are implemented, and for advancing the interests of the Society and its members.

The Society has over 30,000 members and a staff of approximately 70 reporting to directors who represent each of the major functions of the Society, and, in turn, report directly to the executive director.

Applicants should have extensive administrative experience in an organization concerned with the sciences. A doctorate in the biological sciences is desirable. Salary will be competitive and determined according to experience and qualifications. Applications with curriculum vitae and names of three references should be submitted by 5 February 1984 to: **Dr. J. Mehsen Joseph, Secretary, American Society for Microbiology, Laboratories Administration, Maryland State Department of Health and Mental Hygiene, P.O. Box 2355, Baltimore, Maryland 21203.**

*The American Society for Microbiology is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN MOLECULAR IMMUNOLOGY

The Department of Biology and the Rosenstiel Center of Brandeis University invite applications for a tenure-track position at the assistant or associate professor level for an immunologist, preferably with a strong background in molecular genetics. The level of the appointment will depend on the background and experience of the candidate and excellence of research, both accomplished and planned. Excellence in teaching is also expected. Send curriculum vitae and a short description of accomplished and planned research and names of three references to: **Dr. Alfred Nisonoff, Rosenstiel Center, Brandeis University, Waltham, Mass. 02254.** Deadline for application is 15 February 1984. *We are an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN PHARMACOLOGY

The University of Kentucky College of Pharmacy invites applications for a tenure-track position at the assistant professor level. Applicants should have a Ph.D. and a minimum of 2 years' postdoctoral experience. The successful candidate must be committed to teaching undergraduate and graduate students and have the potential to establish a strong, independent research program that merits extramural support. Particular consideration will be given to individuals whose research interests complement those of the existing faculty, principally in the area of pulmonary pharmacology, toxicology and physiology. Applications should include curriculum vitae, reprints of recent publications, a brief description of research and career goals, and names of three references and must be submitted by 1 March 1984 to:

**Dr. Louis Diamond, Director  
Division of Pharmacodynamics and Toxicology  
College of Pharmacy  
University of Kentucky  
Lexington, Kentucky 40536-0053  
An Equal Opportunity Employer**

### FACULTY POSITION MACROMOLECULAR CRYSTALLOGRAPHY UNIVERSITY OF OREGON

A regular faculty appointment will be made in the Physics Department at the University of Oregon at the assistant professor level, to begin in fall 1984. Salary will be commensurate with experience and qualifications. The position is part of an expansion in the multidisciplinary program in biophysics and cellular and molecular biology. The appointee will be expected to establish an active research program in the general area of macromolecular crystallography and its application to contemporary problems in macromolecular structure and function. The department is well equipped for x-ray structural studies. Applications, including a résumé, a summary of research accomplishments and teaching experience, and a statement describing research goals, should be sent to: **Professor Brian Matthews, Physics Department, University of Oregon, Eugene, Oregon 97403.** Applicants should also arrange for three letters of reference to be sent prior to the closing date, 15 March 1984. *The University of Oregon is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**FACULTY POSITION.** Ph.D. clinical cytogeneticist. BC/BE American Board of Medical Genetics. Experience in cytogenetic/antenatal diagnostic laboratory required. Salary and level of appointment commensurate with experience. Please reply with curriculum vitae to: **Harold Chen, M.D., Chief, Birth Defects Center, Department of Pediatrics, Louisiana State University Medical Center, School of Medicine in Shreveport, P.O. Box 33932, Shreveport, La. 71130.** *Equal Opportunity Employer.*

### FACULTY POSITION IN FRESHWATER ECOLOGY

The Department of Biology at the University of Alabama invites applications for a full professorship in freshwater ecology. An experienced individual is sought who has a background in interdisciplinary aspects of freshwater ecology and who will play a major role in helping to coordinate the developing aquatic biology program. The successful candidate will also be expected to maintain a vigorous research program, direct graduate students, and teach in the area of specialty. To be considered, the applicant must have a Ph.D. degree, an established program in basic research, a history of successful extramural funding, and a demonstrated ability to work with professionals in other disciplines. Salary will be commensurate with experience. Applicants should submit curriculum vitae, statement of professional goals, record of research support (past, present, pending), and names, addresses, and telephone numbers of three referees by 29 February 1984 to:

**Dr. J. C. O'Kelley  
Chairman, Search Committee  
Department of Biology  
P.O. Box 1927  
The University of Alabama  
University, Ala. 35486**

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

**FACULTY POSITIONS:** Terrestrial physiological ecologist; visiting appointment for ecologist or evolutionary biologist. The Department of Ecology and Evolution expects to recruit for a 2-year assistant professorship in terrestrial physiological ecology (of animals or plants). In addition, we solicit applications for a 1-year visiting appointment for an ecologist or evolutionary biologist, rank and specialty open. Candidates should have demonstrated research abilities and expect normal teaching load (undergraduate and graduate) in their specialty. Applicants should specify which position is applied for. Curriculum vitae and names of three references by 1 March 1984 to: **L. B. Slobodkin, Ecology and Evolution, State University of New York (SUNY), Stony Brook, Stony Brook, N.Y. 11794.** *SUNY, Stony Brook, is an Equal Opportunity/Affirmative Action Employer.* AK number 817.

### FOOD SCIENTIST FOOD MICROBIOLOGY—FERMENTATIONS

Assistant professor, tenure-track calendar year position for individual with a Ph.D. in food science or microbiology who can develop an independent research program in food microbiology directed toward food and food component fermentations using conventional, continuous, and biotechnological approaches. Responsibilities include teaching at undergraduate and graduate levels and direction of graduate research. Send curriculum vitae, list of publications, and at least three references to: **Dr. Myron Solberg, Search Committee Chair, Food Science Department, Cook College, Rutgers University, New Brunswick, New Jersey 08903.** *Rutgers University is an Equal Opportunity/Affirmative Action Employer.*

**MOLECULAR BIOLOGY OF PHOTOSYNTHESIS.** Career position with U.S. Department of Agriculture (USDA) in multidisciplinary photosynthesis research group on the University of Illinois campus at Urbana, Illinois. Conducts basic research on the isolation, characterization, expression, modification and transfer of photosynthesis genes in chloroplast-containing organisms and on the interaction of nuclear and chloroplast genes in the biosynthesis and assembly of components of the photosynthetic apparatus. Salary range: \$25,365 to \$46,995, depending on qualifications. Faculty appointment. For applications and additional information, contact by 15 February 1984: **Dr. W. L. Ogren, USDA/ARS-Agronomy, University of Illinois, 1102 South Goodwin Avenue, Urbana, Ill. 61801.** Telephone 217-333-4370. Candidates must be U.S. citizens. *Equal Opportunity Employer.*

## POSITIONS OPEN

### FRESH WATER BIOLOGIST

The Biology Department is seeking an individual whose research involves some aspect of the physiology, limnology, evolutionary biology, or ecology of fresh water systems to fill an assistant professor, tenure-track position beginning August 1984 (contingent upon expected legislative funding). Applicants must hold a Ph.D. and have demonstrated excellence in both teaching and research; postdoctoral experience is desirable. Successful candidate will be expected to develop an active research program and to interact with diverse group of active individuals in related disciplines. Teaching will include limnology, and a strong commitment to undergraduate/graduate education is essential. Applications should include letter describing research and teaching interests and professional goals, current resume and reprints/preprints of publications. Applicants should arrange to have three letters of reference sent separately. Materials must be received by 20 February 1984. Send to: **Chairman, Fresh Water Biology Search Committee, Department of Biology, The University of New Mexico, Albuquerque, N.M. 87131.** *Affirmative Action/Equal Opportunity Employer.*

### IMMUNOLOGIST

The Department of Biological Sciences invites applications for a tenure-track position at the assistant professor level. The position is available for fall semester 1984. Salary is negotiable based on experience and qualifications. Applicants must have a Ph.D., and postdoctoral experience is preferred. Duties will include teaching an undergraduate immunology course as well as graduate courses in immunology and/or area of research specialization. The successful applicant will also be expected to supervise graduate students and develop a productive, independent research program in immunology. Submit curriculum vitae, a statement of research interests, and the names of at least three references postmarked by 1 April 1984 to: **Search Committee, Department of Biological Sciences, University of Central Florida, Orlando, Florida 32816.** *The University of Central Florida is an Affirmative Action/Equal Opportunity Institution in Employment and Admissions.*

### IMMUNOLOGIST

**Department of Microbiology and Immunology and the Regional Primate Research Center  
UNIVERSITY OF WASHINGTON**

Candidates sought for junior faculty position in basic immunology or immunogenetics. The appointee's research activities would include, but not be limited to, identification and exploitation of research opportunities provided by a very large, long-established colony of nonhuman primates. A research program of interrelated human and nonhuman primate genetics would be particularly welcome. Previous primate experience not required. The primary selection criteria will be evidence of scientific excellence and promise of independent research of highest academic standard. Send letter of application, curriculum vitae, and three personal references to:

**Douglas M. Bowden, M.D.  
Chairman, Search Committee  
Regional Primate Research Center SJ-50  
University of Washington  
Seattle, Wash. 98195  
Telephone: 206-543-1430**

*Affirmative Action/Equal Opportunity Employer*

**MICROBIOLOGIST/GENETICIST.** Applications are invited from qualified individuals for the position of assistant professor (tenure track) in the Biological Sciences Program at the State University of New York (SUNY)/College at Old Westbury. Applicants must have a Ph.D. in either microbiology or genetics and be able to instruct undergraduate courses in both disciplines. Candidates are also expected to teach general biology and to develop an active undergraduate research program in an area of interest. Candidates should demonstrate the willingness and ability to teach students with a broad range of cultural, ethnic and academic backgrounds. It is the program's expectation that candidates will also seek external funding. Applicants should submit (i) curriculum vitae, including copies of recent publications if available, (ii) a statement of teaching and research goals, (iii) current and ending research support, and (iv) the names of three references. Starting date: 1 September 1984. Application deadline: 1 March 1984. Reply to: **Director of Affirmative Action Search Committee M/G, State University of New York College at Old Westbury, Old Westbury, New York 11568.** *Affirmative Action/Equal Opportunity Employer.*

## Faculty Positions in Media Technology

The Massachusetts Institute of Technology has created a new interdisciplinary laboratory to address the invention and creative use of new media. As part of this Media Laboratory's teaching responsibilities, six faculty positions are open in the Department of Agriculture. Candidates qualified for any one or more of these openings are invited to submit resumes and any additional information by February 15, 1984:



**Professor Nicholas Negroponte**  
**Director, Media Laboratory**  
**Room NE 43-205**  
**Massachusetts Institute of Technology**  
**545 Technology Square**  
**Cambridge, Massachusetts 02139**

The positions are in the discipline areas of:

1. film and video engineering
2. computer graphics
3. personal computation
4. photo-electronics
5. epistemology and learning
6. acoustics and audio engineering

Duties include 50% research and 50% teaching. In each case teaching will include three commitments:

1. an introductory subject in the field
2. a graduate seminar in the faculty person's particular field
3. thesis supervision

Faculty are expected to build research programs from the following existing platforms of sponsored research: human interaction with computers, broadcast technology, learning, signal processing, computer music, electro-optics, graphics and image making.

Applicants must possess a PhD or equivalent, and must have demonstrated ability and interest in research. Teaching experience at the University level is desirable. The positions respectively require professional experience in:

1. television engineering, digital video, telecommunication
2. computer animation, image processing, artificial intelligence
3. human/machine interface, experimental psychology
4. electronic imaging, display technology, 3-D
5. developmental psychology, social science, computation
6. digital audio, real-time signal processing, spatial sound, speech processing, performance technology

Each position can be at either the Assistant or Associate Professor level; salary competitive and to be negotiated. The opening is specifically for the academic year starting September 1984. An earlier starting date is possible.

MIT IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.

## COURSES IN BIOLOGICAL SCIENCES AT THE HOPKINS MARINE STATION OF STANFORD UNIVERSITY SUMMER 1984

### First Session—18 June to 21 July

105H. *Subtidal Communities*, Staff

Lecture, laboratory, and diving field trips treating the ecology of local shallow-water marine communities.

111H. *Marine Invertebrates*, C. Baxter

A survey of the biology of marine invertebrate phyla excluding the protostomes.

113H. *Introduction to Oceanic Biology*, E. Haderlie

Introduction to the ocean as an environment; to its major categories of inhabitants, producer and consumer, benthic and pelagic, invertebrate and vertebrate; and to its functioning of the ocean ecosystem.

136H. *Cell Biology of Early Development*, D. Epel and D. Mazia

Emphasis on cellular phenomena associated with egg maturation, fertilization, cleavage and gastrulation. Open to advanced undergraduates and graduate students.

### Second Session—23 July to 25 August

112H. *Marine Invertebrates (continued)*, C. Baxter

Continuation of Course 111H, covering the mollusks, annelids, arthropods, and allied lesser phyla. While the two courses form a continuous sequence, either half may be taken separately when space permits.

130H. *Biological Clocks*, C. Pittendrigh and Visiting Professors

An analysis of circadian organization and photoperiodism in *Drosophila* (two weeks) is followed by sections on other invertebrates (one week) and vertebrates (one week). The final week is devoted to molecular aspects.

222H. *Cellular Physiology of Nerve and Muscle*, W. Gilly, S. Thompson and Visiting Professors

Presents an advanced treatment of membrane physiology and exposure to relevant experimental techniques. Emphasis will be placed on gating of ionic channels and E-C coupling. Laboratory will involve microelectrode voltage clamp, patch clamp, axial wire methods, construction of artificial bilayers and channel reconstitution. Marine preparations will be extensively utilized.

225H. *Biology of the Immune System*, J. Howard, I. Weissman and Visiting Professors

The biology of the immune system will be covered in an intensive lecture and problems set course. Special emphasis will be placed on the evolution of the immune system, and its comparison with other evolving systems at the molecular and cellular level. For advanced undergraduates or graduate students.

For more information and an application form, please write to: **The Academic Secretary, Hopkins Marine Station, Pacific Grove, CA 93950**. Applications for the summer session close on 31 March 1984.

# Director, Toxicology Research and Testing Program

The National Institute of Environmental Health Sciences (NIEHS) invites nominations and applications for the position of Director, Toxicology Research and Testing Program (TRTP). TRTP is one of four program areas within the Institute and functions as an integral part of the National Toxicology Program (NTP). The Director, TRTP reports to the Director, NIEHS who also serves as Director, NTP. The candidate must be internationally recognized within the scientific community as an authority in toxicology/carcinogenesis. In addition, the candidate should demonstrate an interest and a commitment to environmental health issues. This Institute conducts, fosters, and coordinates (in its own laboratories and through contracts, grants, and support of Environmental Health Science Centers) research and research training on the biological effects of chemical, physical, and biological substances in the environment to: develop understanding of the mechanism of action of such substances; provide the scientific basis for evaluating their extent and severity on a national scale; establish the toxicity of chemical substances of significant public health concern; define and develop methods for diagnosis and treatment of environmentally induced illnesses; collect and disseminate information in furtherance of program.

The Director serves as the primary official with responsibility for planning and executing the Institute's program in toxicologic testing and test methods development, including: applied research to develop, validate and evaluate methods for testing the toxicity of chemical compounds and other environmental agents; a program of chemical testing including short-term screening and long-term carcinogenesis and chronic toxicity testing; collaboration with chemical toxicology test development and testing programs in other government agencies; and dissemination of test results and test development and validation efforts to interested members of the scientific community, Federal regulatory agencies, the academic community and the general public.

This is a Civil Service position in the Senior Executive Service (SES)

with a salary range from \$56,945 to \$63,800 per annum, depending on qualifications. Currently the payable salary is limited to \$63,800. Physicians may be eligible for an additional comparability allowance of up to \$10,000 per year. (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service). Mandatory professional/technical qualifications are a medical degree, or Ph.D. degree in a health or health related science (or equivalent), appropriate board certification and research program administration experience in toxicology/chemical testing. Further information on these qualifications is available by contacting Ms. Lou Rozier, Personnel Management Specialist, National Institute of Environmental Health Sciences, (919) 541-7513.

Mandatory managerial/executive qualifications include evidence of management of a basic or clinical research program, demonstrating ability to assume leadership responsibilities in developing program goals; representing the program to outside groups; directing program planning, execution, and evaluation; and conducting a fair and equitable employment program, including the attainment of EEO objectives.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the degree to which they exceed the mandatory managerial/executive qualifications, and on the following desirable qualifications: scientific reputation/peer recognition, training and education, leadership of a basic or clinical research or research administration program, and honors and awards.

**APPLICATIONS (PERSONAL QUALIFICATIONS STATEMENT SF-171) should be postmarked no later than February 29, 1984 and sent to Ms. Lou Rozier, Personnel Coordinator, Qualifications Review Board for Director, TRTP, Personnel Office (1-01), National Institute of Environmental Health Sciences, P.O. Box 12233, Research Triangle Park, N.C. 27709.**

AN EQUAL OPPORTUNITY EMPLOYER

## POSITIONS OPEN

### HEAD DEPARTMENT OF BIOLOGY TEXAS A&M UNIVERSITY

Applications and nominations are invited for the position of head of the Department of Biology at Texas A&M University.

The Department of Biology, with a faculty of 38, is an administrative unit of the College of Science offering B.S., M.S., and Ph.D. degrees in biology, botany, microbiology, and zoology.

Candidates for the position must have an earned doctorate, a distinguished record in research and teaching, and other professional accomplishments. Candidates are sought who have demonstrated leadership abilities and a commitment to developing strong academic and research programs in biology.

Candidates should be available to assume the position by 1 September 1984. Nominations and applications, with résumés and names and telephone numbers of references, will be accepted until 15 February 1984 or until a suitable candidate is identified. Materials should be sent to: **Dr. C. J. Maxson, Associate Dean, College of Science, Texas A&M University, College Station, Texas 77843. Telephone: 409-845-7361.**

*Texas A&M is an Equal Opportunity/Affirmative Action Employer.*

**MICROBIOLOGISTS.** Martin Marietta's Corporate R & D Laboratories is rapidly expanding its research in the biosciences. Current openings pertain to: (i) algal biochemistry and physiology, (ii) phytochemistry, and (iii) mass culture of algae for plant products. Department is an interdisciplinary small group branching out into several emerging technology areas. Applicants should have a Ph.D. and zero to 5 years of experience in fields relevant to the above project areas. We also offer an excellent salary and benefits package. If interested, send résumé to: **Monica C. Ballard, Martin Marietta Laboratories, 1450 South Rolling Road, Baltimore, Md. 21227. Equal Opportunity Employer, M/F.**

### MOLECULAR BIOLOGY FACULTY POSITION UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

The Molecular Biology Research Section at the University of Southern California invites applications for positions at both junior and senior levels. Candidates should have an outstanding record of research publication and will be expected to develop a high quality, independent research program at USC. Areas of interest include cellular, molecular, developmental and genetic biology, and biochemistry. These are tenure-track positions in the Department of Biological Sciences and include involvement in undergraduate and graduate teaching programs.

The appointment can be effective as early as 1 September 1984. Letters of interest and curriculum vitae should be sent prior to 15 February 1984 to:

**Molecular Biology Search Committee  
Ahmanson Center for Biological Research, Room 406  
University Park, MC 1481  
University of Southern California  
Los Angeles, Calif. 90089**

### MOLECULAR BIOLOGIST

The U.S. Department of Agriculture, National Animal Disease Center, Ames, Iowa, is seeking applications for a microbiologist/molecular biologist with experience in application of recombinant DNA technology and isolation and characterization of bacteria proteins. Full-time permanent position in the Leptospirosis Research Unit.

U.S. citizenship required; Ph.D. preferred. For application procedures, contact: **Dr. Alex Thiermann, Leptospirosis Research Unit, National Animal Disease Center, P.O. Box 70, Ames, Iowa 50010; telephone: 515-232-0250, extension 327. An Equal Opportunity/Affirmative Action Employer.**

The U.S. Department of Agriculture, National Animal Disease Center, Ames, Iowa, is seeking applications for a **SENIOR BIOCHEMIST** to join a research team working on enterotoxigenic *Escherichia coli* infections of animals. Experience in independently conducting and leading research in biochemical definitions of *E. coli* enterotoxins or pili is required. Full-time permanent position. U.S. citizenship required. For application procedures, contact: **Dr. Harley W. Moon, Chief, Bacteriology and Mycology Research Laboratory, National Animal Disease Center, P.O. Box 70, Ames, Iowa 50010. Telephone: 515-232-0250, extension 253. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### MOLECULAR BIOLOGIST

The Department of Molecular Biology of Vanderbilt University invites applications and nominations for a tenure-track position, the rank dependent upon qualifications. Candidates qualifying for a senior rank should have a record of distinguished contributions. Other candidates should have already demonstrated their research capabilities. Scientists with experience in molecular genetics or in other aspects of molecular biology are invited to apply. Responsibilities will include development of a strong independent program of research in molecular biology and participation in the teaching program. *Women and minority candidates are especially encouraged to apply.* Please send applications, including curriculum vitae, list of publications, and summary of research plans by 1 March 1984, as well as three letters of reference to: **Dr. Oscar Touster, Chairman, Department of Molecular Biology, Vanderbilt University, Nashville, Tennessee 37235.**

*An Affirmative Action/Equal Opportunity Employer*

### NEUROPSYCHOLOGIST, Ph.D.

Position available at VA Medical Center which is affiliated with the School of Medicine, Wayne State University. Duties will involve collaboration with Neurology Service in the development of a Sleep-Wake Disorders Unit. Successful candidate must be eligible for appointment to faculty in Department of Psychiatry at Wayne State which has a major teaching affiliation with Lafayette Clinic. Beginning salary will range between \$24,508 and \$34,930 and will be set on basis of experience and past performance. Curriculum vitae, undergraduate and graduate transcripts, summary of clinical and research experience must be forwarded no later than 27 January 1984 to: **Chief, Personnel Service, VA Medical Center, Allen Park, Michigan 48101. An Equal Opportunity Employer.**

**ORAL BIOLOGY/PHARMACOLOGIST**—The Oral Biology Department of the University of Nebraska Medical Center, College of Dentistry, invites applications for a full-time, tenure-track, assistant professor position beginning 1 July 1984. The candidate is expected to establish an active research program and to teach pharmacology in undergraduate, professional, and graduate courses. Ph.D. or equivalent with demonstrated research ability required. Salary commensurate with background, training, and experience. Application deadline is 1 May 1984. Submit curriculum vitae to:

**Search Committee, Position Number 414  
College of Dentistry, Room 100  
UNIVERSITY OF NEBRASKA MEDICAL CENTER  
40th and Holdrege  
Lincoln, Nebraska 68583-0740  
Telephone: 402-472-1340**

*The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer.*

### PARASITOLOGY FACULTY POSITION

The Department of Pathobiology, University of Pennsylvania, School of Veterinary Medicine, is inviting applications for a tenure probationary faculty position of assistant or associate professor in the Laboratory of Parasitology, with a starting date of 1 July 1984. Applicants are expected to have a D.V.M. and/or a Ph.D. degree. A demonstrated ability and interest in research and teaching in parasitology is essential. Candidates are requested to submit curriculum vitae and the names of at least three references to: **Dr. Mark Haskins, Department of Pathobiology, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, Pa. 19104.** Application deadline is 1 March 1984 or thereafter until the position is filled.

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

**POSTDOCTORAL POSITION** available 1 April 1984 for 1 or 2 years in membrane transport physiology. The project will involve studies of single ion channels by patch clamp techniques in isolated renal tubule preparations. Candidate should have a strong background in electrophysiological techniques. Applicants should send curriculum vitae along with two references to: **Dr. Gerhard Giebisch, Department of Physiology, Yale University School of Medicine, 333 Cedar Street, P.O. Box 3333, New Haven, Conn. 06510.**

*Yale University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

The **DEPARTMENT OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS** at Louisiana State University (LSU) Medical Center in New Orleans invites applications for a tenure-track position. Candidates should have a Ph.D. with postdoctoral research experience and the ability to obtain extramural grant support. Research interest in renal, endocrinology, drug metabolism, or molecular pharmacology desired. Teaching experience is desirable. Individuals will participate in teaching pharmacology to graduate, medical, dental, allied health sciences and nursing students. Applicants should submit curriculum vitae, bibliography, a statement describing research and career goals, and have three letters of recommendation sent to: **Dr. Norman W. Robie, Department of Pharmacology, LSU Medical Center, 1100 Florida Avenue, New Orleans, La. 70119. Affirmative Action/Equal Opportunity Employer.**

**PLANT ECOLOGIST**—The Department of Biology, Villanova University, seeks a broadly trained biologist with a specialization in plant ecology to fill a tenure-track position at the level of assistant professor. The successful candidate would be expected to develop both graduate (M.S.) and undergraduate courses in his or her area of specialization, participate in other existing courses in the department, and direct graduate and undergraduate research. Candidates should have postdoctoral experience, a record of productive research, and ability to obtain extramural funding. Applicants should send curriculum vitae, names and addresses of at least three referees, a statement of teaching and research interests, and undergraduate and graduate transcripts by 17 February 1984 to:

**Dr. Joseph A. J. Orkiszewski, Chairman  
Department of Biology  
Villanova University  
Villanova, Pa. 19085**

*Villanova University is an Equal Opportunity/Affirmative Action Employer.*

### PLANT PHYSIOLOGIST/PLANT MOLECULAR BIOLOGIST

The Department of Biology at Northeastern University is seeking a **PLANT PHYSIOLOGIST** or **PLANT MOLECULAR BIOLOGIST** to interface with the existing plant science program. The appointment is at the assistant professor level and is a tenure-track position to begin September 1984. Candidates must have a Ph.D. degree in the area of plant physiology/plant molecular biology or a related plant science and postdoctoral experience in one of the above areas. We seek an individual with a demonstrated potential for developing an externally funded research program in plant physiology and/or plant molecular biology. The successful candidate will be expected to contribute to undergraduate and graduate teaching in the plant sciences and to teach a general biology course in addition to supervising undergraduate and graduate student research. Applicants should submit curriculum vitae, statement of research plans and objectives, and three letters of reference by 31 January 1984 to: **Dr. Daniel C. Scheirer, Chairman Plant Physiology/Plant Molecular Biology Search Committee, Department of Biology, Northeastern University, 360 Huntington Avenue, Boston, Mass. 02115. Northeastern is an Equal Opportunity/Affirmative Action/Title IX University.**

**PLANT PHYSIOLOGY.** One-year position (sabbatical replacement) to teach plant physiology, courses designed for the nonmajor, and to participate in freshman-level biology. Starts 1 September 1984. Ph.D. is preferred; an ABD with a strong teaching background will be considered. Applicants should submit letter of application, curriculum vitae, and three letters of recommendation by 1 March 1984 to: **Dr. David Richard, Chair, Department of Biology, Rollins College, Winter Park, Fla. 32789. Equal Opportunity/Affirmative Action College.**

### POSTDOCTORAL IN PHARMACOLOGY

Position available immediately to study the molecular pharmacology of angiotensin and related peptides. Experience in solid-phase peptide synthesis is also possible. Some background in receptor mechanisms is required. Send curriculum vitae and names of three references to:

**Dr. Richard J. Freer  
Department of Pharmacology  
Box 613  
Medical College of Virginia  
Richmond, Virginia 23298-0001**



# Scientists

## START-UP OPPORTUNITY!

We're Genencor, a most exciting start-up operation—a joint venture of Genentech and Corning—chartered to advance the fascinating science of Biotechnology!

NEW POSITIONS exist, all requiring a PhD in Biochemistry and related fields.

### IMMUNOLOGIST/ASSAY GROUP

Experience in immunochemical techniques to research in enzymology. Postdoctoral or industrial experience necessary. (refer to Job #P-7).

### MOLECULAR BIOLOGY GROUP

Will conduct experiments in cloning, subcloning and gene expression in prokaryotes. Supervision of 1 or 2 technical assistants. (Refer to Job #P-9).

### FUNGAL PHYSIOLOGIST/ GENETICIST

Experience in product development and strain development of fungal cultures. Some background in bacterial physiology and genetics desirable. (Refer to Job #P-14).

### ENZYMOLOGIST/ASSAY GROUP

Design assays to quantify enzyme activity. Experience in purification and characterization of new enzymes. Postdoctoral in Biochemistry. (Refer to Job #P-15).

### BIOCHEMICAL ENGINEER

Experience in fermentation development including scale-up, process design and optimization or in recovery and purification. (Refer to Job #P-17).

### PROTEIN BIOCHEMIST

Experience in protein recovery and purification including extensive practical knowledge of scale-up. (Refer to Job #P-21).

Act now and become a key contributor to a vigorous young firm that offers the freedom, the funding and the commitment to succeed!

Send your resume, WITH REFERENCE NUMBER, in confidence, with salary history, to Donna Clark, Director, Human Resources, GENENCOR, 180 Kimball Way, So. San Francisco, CA 94080. An equal opportunity employer.

# GENENCOR

# Biotechnology Careers

Challenging career opportunities currently exist in the expanding Biotechnology Section of the Celanese Research Company. The following research positions are available:

## BIOCHEMICAL ENGINEER

The successful candidate will join our professional team of dedicated scientists engaged in developing biotechnological processes for the production of a variety of chemicals. The primary responsibility of this R&D position will be to provide effective interfacing between teams of research biologists and chemical engineers towards the successful commercialization of current industrial research programs. In addition to a Ph.D. in Biochemical Engineering or Microbiology applicants must possess a minimum of 2 years in-depth experience in fermentation with an emphasis on bioprocess control and development. Good communication skills and the ability to relate to people on all levels is essential.

## MOLECULAR GENETICIST

The primary responsibility of this R&D position will be the application of state-of-the-art genetic and recombinant DNA technology to the development of microorganisms and processes for the production of a variety of chemicals. In addition to a Ph.D. in Bacterial Genetics or Molecular Biology the ideal candidate should have proven expertise in the manipulation of bacteria (preferably gram-negatives) using classic genetic technology in addition to expertise in the manipulation of microorganisms using recombinant DNA technology.

## BIOCHEMIST / PHYSIOLOGIST

This position requires a Ph.D. in Biochemistry or Microbial Physiology, preferably with at least 2 years postdoctoral experience in the area of microbial metabolism and/or the genetic manipulation of microorganisms. The successful candidate will be required to participate in on-going research programs in addition to initiating his/her own programs.

Located at our corporate research center in Summit, New Jersey, these positions offer salary commensurate with credentials and a comprehensive benefits package in addition to a professionally stimulating and rewarding environment.

To be considered for one of these exceptional opportunities please forward a resume with salary history in confidence to Employee Relations, Dept. SB4, Celanese Research Company, 86 Morris Ave., Summit, New Jersey 07901.

# CELANESE

SUMMIT TECHNICAL CENTER

An equal  
opportunity  
employer M/F/H/V



## POSITIONS OPEN

**POSTDOCTORAL—NEUROVASCULAR PHYSIOLOGY** position available to study the interaction of sympathetic nerves and blood vessels during physiologic and pathologic states in animals and humans. Ph.D. or M.D. U.S. citizenship required. Send curriculum vitae, statement of research interests, and two references to: **Dr. Shirley Mueller, Departments of Neurology and Physiology, Indiana University, 1001 West 10 Street, Indianapolis, Ind. 46202.**

**TWO POSTDOCTORAL FELLOW POSITIONS** open for recent Ph.D.'s in psychology, ecology, or physiology; NICHD training program in vertebrate reproductive biology with Doctors Bronson, Crews, and Desjardins. Apply by 15 February to: **F. H. Bronson, Department of Zoology, Patterson 28, University of Texas, Austin, Texas 78712.**

**POSTDOCTORAL POSITION** available now in the area of cytoskeleton-membrane interactions. Research program will involve studies on the interactions of brain spectrin (fodrin) with the spectrin binding proteins 2.1, 4.1, and actin. Would prefer applicants with a Ph.D. in biochemistry, cell biology, neurobiology, or related fields. Salary: \$15,000 to \$20,000, depending upon qualifications and experience. Send curriculum vitae and names of references to: **Dr. Steven R. Goodman, Director of Multidisciplinary Laboratories, The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, Pa. 17033.**

**POSTDOCTORAL POSITION** available immediately for research on characterization and mode of action of host-specific toxins from plant pathogenic fungi. A Ph.D. degree in plant pathology, plant physiology, biochemistry, or related fields is required. Send credentials, including curriculum vitae, transcripts, and letters of reference to: **Dr. V. Macko, Boyce Thompson Institute for Plant Research, Tower Road, Cornell University, Ithaca, New York 14853.**

*An Equal Opportunity/Affirmative Action Employer*

**POSTDOCTORAL POSITION** available immediately for person with background in membrane biochemistry and cell biology. Expertise in the characterization and tissue localization (EM level) of membrane proteins by immunological methods highly desirable. Person will join a group working on membrane protein synthesis and turnover in lactating mammary tissue. Salary: \$16,000 per annum. Send curriculum vitae and three references to: **Dr. I. H. Mather, Department of Animal Sciences, University of Maryland, College Park, Maryland 20742. Telephone: 301-454-3733. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available immediately for biochemist to investigate regulation of mammalian pyruvate dehydrogenase complex. Individual will direct large-scale mitochondria and enzyme complex purification and investigate protein kinase and phosphatase function. Experience with enzyme purification, enzyme kinetics, and insulin action desired. Contact: **Dr. Thomas E. Roche, Department of Biochemistry, Kansas State University, Manhattan, Kans. 66506. An Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION IN IMMUNOLOGY.** The candidate should be interested in the molecular mechanisms of antigen processing and presentation. Background in membrane and/or protein chemistry desirable. Interested individuals should send curriculum vitae and the names and telephone numbers of three references to: **Dr. Howard Grey, Division of Basic Immunology, Department of Medicine, National Jewish Hospital and Research Center, 3800 East Colfax Avenue, Denver, Colo. 80206.**

**POSTDOCTORAL POSITION IN IMMUNOLOGY.** Two funded postdoctoral positions are available immediately to study the structure and function of the Ia antigens. Specific projects involve establishing the antigenic fine structure of the Ia antigens using monoclonal antibodies, identifying specific interactions of Ia antigens with components of cytoskeleton and plasma membrane, and examining the details of potential interactions between foreign antigen, Ia antigen and T cell receptor during antigen presentation. Salaries to be consistent with NIH guidelines. Prospective candidates should send curriculum vitae, three references, and a summary of research interests to: **Dr. John H. Freed, Division of Basic Immunology, Department of Medicine, National Jewish Hospital and Research Center, 3800 East Colfax Avenue, Denver, Colo. 80206.**

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS** available immediately in the following areas: (i) the effects of membrane environment on the properties of lens  $\text{Na}^+$ ,  $\text{K}^+$ -ATPase, (ii) regulation of membrane permeability in mitochondria by phospholipid deacylation-reacylation cycles, (iii) bioenergetics of  $\text{Ca}^{2+}$  transport by mitochondria, and (iv) membrane interactions and cation transport by A23187 emphasizing fluorescence and fast reaction techniques. Annual stipend: \$16,400 minimum. Send curriculum vitae and three reference letters to: **Dr. Douglas R. Pfeiffer, The Hormel Institute, University of Minnesota, Austin, Minn. 55912. Telephone: 507-433-8804. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages women and minority applicants.**

**POSTDOCTORAL POSITIONS** available in Departments of Biochemistry, Microbiology and Immunology, Pharmacology, and Physiology. Applicants must have a Ph.D. or M.D. degree. Positions available during 1983-1984.

Send application to appropriate department head, **University of Arizona, Arizona Health Sciences Center, Tucson, Ariz. 85724.**

*An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

**POSTDOCTORAL POSITION** available immediately for studies on purification of the human platelet  $\alpha$ -adrenergic receptor and development of receptor-directed monoclonal antibodies. Appropriate biochemical background is necessary. Send curriculum vitae and three letters of recommendation to: **Dr. Lee E. Limbird, Associate Professor, Department of Pharmacology, Vanderbilt University, Nashville, Tenn. 37232. Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available in a group studying mechanisms of hormone action on bone. Emphasis is on initiating events in hormone action including protein kinases, phosphorylation and phospholipid metabolism in isolated bone cells and bone organ cultures. Previous experience with cell culture or chromatographic/electrophoretic techniques would be advantageous. Send curriculum vitae and names of three references to: **Dr. Paula Stern, Department of Pharmacology, Northwestern University Medical School, Chicago, Illinois 60611.**

**POSTDOCTORAL POSITION** available immediately to study the control of localized expression of genes during the early development of sea urchin embryos. Experience with antibody and/or recombinant DNA technology is desirable. Starting date and salary negotiable. Please send curriculum vitae and names of three references to: **Dr. Rudolf A. Raff, Institute for Molecular and Cellular Biology, Indiana University, Bloomington, Ind. 47405. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available immediately to study ion absorptive and secretory processes in the small intestine using several techniques including ion-sensitive microelectrodes. Emphasis is presently placed on defining: (i) the transport mechanisms underlying active  $\text{Cl}^-$  absorption, (ii) the mechanisms by which sugars stimulate  $\text{Na}^+$  absorption, and (iii) the regulation of intestinal acid/base transport including the role of intracellular pH and  $\text{Ca}^{2+}$  in the secretory response to cholera toxin. Write to: **Dr. John F. White, Department of Physiology, Emory University, Atlanta, Ga. 30322. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available 1 February to investigate the fundamental biochemical and physiological mechanisms underlying exocytosis using cultured adrenal chromaffin cells as a model. The roles in secretion of osmotic forces, protein phosphorylation, lipid metabolism, and soluble cytosolic factors are currently being investigated. Studies use intact cells, cells with plasma membranes rendered leaky with digitonin, and cell homogenates.

Salary \$15,000 plus. Send curriculum vitae and names of three references to: **Ronald W. Holz, M.D., Ph.D., Department of Pharmacology, University of Michigan Medical School, Ann Arbor, Mich. 48109. A nondiscriminatory, Affirmative Action Employer.**

**POSTDOCTORAL POSITION** to study the structure and biosynthesis of a complex of two cell surface glycoproteins on mammary tumor cells (*JBC* 255, 783-790, 12051-12059). Send curriculum vitae and names of three references to: **Dr. Kermit L. Carraway, Professor and Chairman, Department of Anatomy and Cell Biology (R-124), University of Miami School of Medicine, Miami, Florida 33101.**

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE**—Position available immediately to work on the use of microbial filter and vascular aquatic plants for removing organic chemicals from river water. A strong background in analytical chemistry is necessary. This is a 1-year appointment with possibility of annual renewal. Salary competitive. Send résumé and three letters of recommendation to: **J. Wolfe, Mississippi State University Research Center, NSTL, Miss. 39529.**

*An Affirmative Action/Equal Opportunity Employer*

**POSTDOCTORAL, RESEARCH ASSOCIATE POSITIONS.** Two positions are available to study the immunology and biochemistry of human malaria. Prior experience in hybridoma immunology, biochemistry, or recombinant DNA techniques preferred. Send résumé and three references to: **Dr. Joseph Inselburg, Department of Microbiology, Dartmouth Medical School, Hanover, N.H. 03756. An Equal Opportunity/Affirmative Action Employer, M/F.**

**POSTDOCTORAL RESEARCH ASSOCIATE.** Available immediately to study growth factors and protein kinase. Experience with handling of protein and tissue culture desirable. Send résumés and names of three references to: **James Tam, Box 294, Rockefeller University, 1230 York Avenue, New York, N.Y. 10021. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL RESEARCH POSITIONS.** Two positions are available for recent Ph.D.'s to study the biochemistry of cytochrome P-450, carcinogen and drug metabolism, and nutritional modification of carcinogenesis. Salary and rank are dependent upon qualifications. Send résumé to: **Dr. Chung S. Yang, Department of Biochemistry, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103. An Equal Opportunity/Affirmative Action Employer.**

## PRESIDENT THE OHIO COLLEGE OF PODIATRIC MEDICINE

The Board of Trustees of the Ohio College of Podiatric Medicine invites applications for the position of president.

Founded in 1916, the Ohio College of Podiatric Medicine is a 4-year, independent, professional school that offers the degree of doctor of podiatric medicine, and is located in the metropolitan Cleveland, Ohio area. The student census is 570.

The Presidential Search Committee encourages candidates with terminal degrees and administrative experience in medical education.

Applications and credentials should be submitted on or before 31 January 1984 to:

**John M. Baker, Chairman  
Presidential Search Committee  
c/o Gayle A. Zitnik  
Ohio College of Podiatric Medicine  
10515 Carnegie Avenue  
Cleveland, Ohio 44106**

*The Ohio College of Podiatric Medicine is an Equal Opportunity Employer.*

**QUANTITATIVE ECOLOGIST.** Assistant professor, tenure-track position for fall 1984. Duties will include teaching freshman biology; undergraduate and graduate ecology courses. The successful candidate must have Ph.D. and will be expected to develop research program involving undergraduate and M.S. degree students. A background in computer assisted modeling/statistics preferred. Aquatic training desirable. Send curriculum vitae and names of three references by 2 March 1984 to: **Dr. W. L. Wissinger, Search Committee Chairman, Biology Department, St. Bonaventure University, St. Bonaventure, N.Y. 14778. Equal Opportunity/Affirmative Action Employer.**

Career permanent position available now for **RESEARCH** on the molecular biology of hepatitis A virus. Candidates with postdoctoral experience in RNA cloning and RNA/DNA sequencing, mRNA isolation, and DNA/mRNA hybridization preferred. Starting salary: \$30,402 to \$36,121, depending on postdoctoral experience. Send curriculum vitae, brief summary of research interest and experience, and names of three current references to: **Louise Griggs, Centers for Disease Control, Atlanta, Georgia, 30333, or telephone: 404-329-3271. An Equal Opportunity Employer.**

**National Institutes of Health  
National Institute of Environmental  
Health Sciences  
Laboratory of Behavioral and  
Neurological Toxicology**

Staff Fellow (Ph.D.) Salary Range—\$17,000 to \$34,269  
(Having less than 3 years professional Research Experience)

Senior Staff Fellow (Ph.D.)  
Salary Range—\$20,688 to \$38,422 (3-7 years Research Experience)

The Neuropharmacology Workgroup is seeking an individual to participate in the design and conducting of laboratory experiments concerning the regulation of neuropeptides in the central nervous system by psychoactive compounds or neurotoxicants. The candidate should have strong experience in neuropharmacology or neurochemistry. The candidate must have a record of demonstrated research productivity and the ability to carry out independent as well as collaborative research. The initial appointment is for two years, with additional extension possible for talented researcher. Salary commensurate with candidate's qualifications and experience. Send curriculum vitae, bibliography and three recommendation letters to:

**Mr. Bruce Wiggins (HN-V27) NIEHS Personnel Office**  
P.O. Box 12233 (MD 1-01) Research Triangle Park, NC 27709  
(919-541-3317)

*NIH is an Equal Opportunity Employer;  
women and minorities are encouraged*

**SENIOR TOXICOLOGIST**

The Rohm and Haas Company, a leading multinational chemical company, has an opening for a Senior Toxicologist at our corporate research headquarters located in Spring House, PA, an attractive suburb of Philadelphia.

The position is for an experienced toxicologist to provide liaison between toxicology and the industrial chemical business of the Rohm and Haas Company worldwide. The individual will be responsible for planning toxicology programs for existing and new industrial chemicals as well as for U.S. premanufacturing notices and EEC premarketing notices. Liaison with Regulatory Agencies in the U.S. and in Europe will be required.

A successful candidate will need a strong background in chemistry and a minimum of 3-5 years industrial toxicology experience, with an M.D., D.V.M. or Ph.D. degree or equivalent in a health-related discipline. The individual must be multilingual, e.g. English, French, and German, and must be willing to travel. Relocation in 2-3 years to Europe may be required.

We offer an excellent salary and benefits program, including relocation assistance, and an environment conducive to professional advancement. Please send a detailed resume, in confidence, to:

Recruiting and Placement #384



An equal opportunity employer M/F.

**PHYSICAL OCEANOGRAPHER**

The Office of Naval Research is seeking a highly qualified individual to serve as a Scientific Officer to plan and manage a contract research program in physical oceanography. The research sponsored is conducted principally at universities and industrial laboratories by the leading scientists in the field. This is a Civil Service position at the GS-13 (\$34,930-\$45,406) or GS-14 (\$41,277-\$53,661) level, depending on qualifications.

The incumbent is responsible for planning, coordinating and directing research programs in physical oceanography, with emphasis on small scale phenomena and/or processes. This includes analyzing research proposals, recommending appropriate action, following the progress of funded contracts in thorough technical detail, determining when contracts and programs should be terminated, insuring timely and effective dissemination of research results to other Naval elements having a need for those results, and insuring that the program content meets anticipated Navy needs.

Candidates should possess a Ph.D. degree or equivalent in physical oceanography or a closely related science with a minimum of three years of progressively responsible professional experience. At least one year of experience must be comparable in difficulty and responsibility to the next lower level in the Federal service. Equivalent combinations of professional experience and graduate education may be acceptable.

Interested persons should submit a resume or Standard Form 171, Personal Qualifications Statement (available at Federal Job Information Centers or from the address below), to:

**OFFICE OF NAVAL RESEARCH**

Civilian Personnel Division, Code 791SC • ATTN: Announcement #83-69(S)  
800 North Quincy Street • Arlington, VA 22217

Applications will be accepted through 15 February 1984 and must be received by that date. For further information and supplemental forms, please call (202) 696-4705.

An Equal Opportunity Employer

U.S. Citizenship Required

## POSITIONS OPEN

**QUANTITATIVE ECOLOGY/INSECT POPULATION DYNAMICS.** Faculty, tenure-track. Incumbent to develop program to complement pest management programs. Opportunity to teach. Salary and rank commensurate with education and experience. Application deadline: 15 March 1984 or until suitable candidate is found. Submit résumé and three letters of recommendation to: **Dr. Eldon E. Ortman, Head, Department of Entomology, Purdue University, West Lafayette, Ind. 47907. Telephone: 317-494-4553. An Equal Opportunity/Affirmative Action Employer.**

### RESEARCH ASSOCIATE POSTDOCTORAL

Position immediately available to study molecular basis for human TPI deficiency and/or isozyme expression. M.S. or equivalent in molecular biology/biochemistry. Ph.D. in molecular biology/genetics preferred. Send curriculum vitae and names of three references to: **Dr. H. Mohrenweiser, Department of Human Genetics, Box 015, University of Michigan Medical School, Ann Arbor, Mich. 48109. A nondiscriminatory, Affirmative Action Employer.**

**RESPIRATORY PHYSIOLOGY** at the assistant professor of medicine (physiology) level. Ph.D. or M.D. degree with 2 to 5 years of postdoctoral experience. The applicants must possess proven ability and an effective research program in the field of central chemical control of ventilation, on an organ system level. Additionally, the successful candidate must have a productive, ongoing research program utilizing  $^{31}\text{P}$  high resolution nuclear magnetic resonance spectroscopy (NMR) to study the effects of GABA, and various acid-base and respiratory stresses on intracellular pH and high energy phosphate metabolism in the brain cells of intact, conscious mammals. He/she should also have a demonstrated interest in  $^{19}\text{F}$  NMR study of the effects of fluorinated anesthetics on brain cell metabolism in intact animals. Please send your curriculum vitae and the names, addresses, and telephone numbers of three references to: **H. Kazemi, M.D., Pulmonary Unit, Massachusetts General Hospital, Boston, Mass. 02114. Harvard Medical School and Massachusetts General Hospital are Equal Opportunity/Affirmative Action Employers.**

## POSITIONS OPEN

### PROTEIN BIOCHEMIST

Assistant professor, Department of Pathobiology, with potential joint appointment in Department of Biochemistry, University of Washington, Seattle. Seeking applicant with strong academic credentials to join biomedical research team involved with the biochemical, genetic, and immunochemical characterization of relevant proteins of microbial and protozoal pathogens. Well-equipped laboratory, start-up funds, and competitive salary available. Position available by March 1984 or thereafter. Send curriculum vitae, bibliography, and three references to: **Dr. Thomas M. Buchanan, Immunology Research Laboratory, 11th Floor, Pacific Medical Center, 1200 12th Avenue South, Seattle, Wash. 98144. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

**RESEARCH SCHOLAR.** The University of Alberta, Department of Medicine, invites applications for a position as research scholar at assistant/associate professor (C\$27,720 to C\$39,829; C\$33,420 to C\$51,658) rank. The successful candidate must have M.D., D.D.S., and/or Ph.D. degree(s). Preference will be given to candidates who have a strong background in basic cellular immunology, and who have demonstrated clear potential for an independent research for developing a research program in clinical facets of immunoregulation. This position will be long-term and will be funded through an external agency, but the incumbent will enjoy the privileges of the University academic rank at which the appointment is made. The granting of these awards is by competition and is made on the basis of excellence. Candidates should forward their curriculum vitae, outlines of their research interests, and names of three references to: **Dr. A. S. Russell, Department of Medicine, University of Alberta, Edmonton, Alberta, Canada T6G 2H1. Closing date: 1 March 1984.**

*The University of Alberta is an Equal Opportunity Employer but, in accordance with Canada Employment and Immigration regulations, this advertisement is directed to Canadian citizens and permanent residents.*

## POSITIONS OPEN

**RESEARCH ASSOCIATE IN MOLECULAR BIOLOGY-NEUROENDOCRINOLOGY** available 1 March 1984. Candidates should have background in molecular biology for studies involving cloning of genes related to insect neuroendocrine systems using an insect virus cloning-expression vector. This position is a unique collaborative research opportunity for study with a dynamic team of investigators. Negotiable salary, for 18 months or longer. For information, contact: **Dr. Larry L. Keeley, Department of Entomology, Texas A&M University, College Station, Texas 77843. Send curriculum vitae, reprints, and names of three references.**

**RESEARCH ASSOCIATE** position available for Ph.D. and/or M.D. with experience in recombinant DNA (and DNA blotting) techniques. Responsible for development and application of in situ hybridization techniques for the diagnosis and multiparameter study of lymphomas and leukemias. Independent research opportunities. Position includes joint appointments in internationally known departments of Hematopathology and Molecular Biology. Salary commensurate with the skills and experience of candidate. Applications should include transcripts, curriculum vitae, summary of professional goals and reprints of publications. Please send complete résumé with current compensation to: **Box 9, SCIENCE.**

*Equal Opportunity/Affirmative Action Employer*

**RESEARCH ASSOCIATE.** San Francisco biotechnology firm requires individual with experience and expertise both in the design and conduct of in vivo experiments in small animals and in vitro assays involving cells such as radioimmunoassays. Experiments mainly involve efficacy studies of humor cell killing by agents in vitro. This position requires an intelligent, highly motivated, self-directing individual. A recent Ph.D. degree in immunology or a related field is required. Excellent salary and benefits and a congenial, stimulating working environment are offered the right person.

Please send curriculum vitae to: **Box 10, SCIENCE.**



## University of Massachusetts Medical School TENURE-TRACK APPOINTMENT IN CLINICAL PHARMACOLOGY

The Departments of Medicine and Pharmacology seek qualified applicants for a tenure-track appointment in the Division of Clinical Pharmacology at the Assistant or Associate Professor level. The successful applicant will fill an established position in a division with productive research, service and teaching functions. The primary faculty appointment will be in the Department of Pharmacology, with a joint appointment and additional resources in the Department of Medicine. The division consists of two clinical pharmacologists, one M.D. fellow, a Ph.D. pharmacokineticist, three nurses, three senior chemists, six clinical pharmacists and the technicians of four separate laboratories. Laboratory facilities and a full range of analytical instruments including GC-MS are available. Collaboration is well established with the Division of Cardiology, one of the most active cardiovascular centers in New England.

The applicant should be an M.D. or M.D./Ph.D. with training and experience in clinical pharmacology or cardiovascular medicine. Applicants will be expected to conduct an independent research program, preferably in an area related to cardiovascular medicine.

The salary and benefits package are excellent, and will be commensurate with the experience of the appointee. Interested candidates should submit a resume and names and addresses of three references to **Brian Johnson, M.D., Director of Clinical Pharmacology, before March 1st, 1984.**

**University of Massachusetts  
Medical Center**

**55 Lake Avenue North  
Worcester, MA 01605**

*An affirmative action/equal opportunity employer*

## Postdoctoral Research Scientist/Plant Molecular Biology

The Molecular Biology Department of Zoecon Corporation is seeking a Postdoctoral Scientist to join a program studying fundamental aspects of gene regulation and plant cells.

Strong preference will be given to candidates with experience in recombinant DNA techniques and plant cell transformation systems (e.g. Ti plasmid plant cell transposable elements, etc.).

Zoecon Corporation, a subsidiary of Sandoz, has been a leader in innovative biological research for over 15 years. This broadly based agricultural biotechnology firm has established research programs in molecular biology, plant tissue culture, plant pathology, and insect physiology.

Our research laboratories are located in Palo Alto, California, in close proximity to Stanford University. We conduct our research in an open, academic-like environment which strongly encourages publication and interaction with other scientists throughout the world.

Please send CV and names of three references to: **Margaret Heath, Zoecon Corporation, 975 California Avenue, Palo Alto, CA 94304. We are an equal opportunity employer.**

# ZOECON

## DIRECTOR Division of Space Biomedicine

The Universities Space Research Association (USRA) is seeking a Director for its Division of Space Biomedicine (DSB). The USRA is a private non-profit corporation, organized in 1969 by the National Academy of Sciences as a consortium of universities chartered to promote research, development, and education associated with space science and technology. The consortium membership now consists of fifty-four universities.

The Division of Space Biomedicine was created in June 1983 to organize and direct a program of university participation with NASA's Space Biomedical Research Institute (SBRI). The SBRI is a NASA-wide institute chartered to work on biomedical problems that are of concern to the astronauts in space. Currently, the problem of major interest is space motion sickness. The SBRI is located in Houston, Texas, at the Lyndon B. Johnson Space Center of NASA.

The DSB consists of a core staff and a variable number of visiting scientists from the university community. The director of the DSB, working in concert with the director of the SBRI, will be responsible for identifying research tasks, coordinating proposals and recommendations from the university research community, and planning the ground-based and inflight projects intended to solve space biomedical research problems of concern to the astronauts.

The applicant should have a broad research background with at least eight years experience in managing research efforts. The individual should possess an M.D. or Ph.D. and should be clinically oriented with a strong commitment and demonstrated ability to engage in applied research towards the solution of a clinical problem.

Salary and benefits are competitive and will depend on the individual's qualifications. Interested individuals should apply no later than February 15, 1984 with complete resumé of academic, professional and personal data, including three references to:

W. D. Cummings, Search Committee  
Universities Space Research Association  
Suite 311 American City Building  
Columbia, MD 21044



USRA is an Equal Opportunity Employer.

## RESEARCH SCIENTIST

Southern Research Institute, an established contract-research organization with a staff of 600, has an opportunity for a qualified professional with managerial potential to assume a challenging, responsible role in experimental chemotherapy programs.

Position requires a Ph.D. in Oncology, Pharmacology, or Biology (with strong background in chemistry). Candidate must be skilled in verbal and written communication, leadership, and interpersonal relationships. Capabilities in proposal and report preparation also are necessary.

Duties involve using *in vivo* and *in vitro* tumor model systems for evaluation of chemotherapeutic agents. Ultimate responsibilities will include coordination of several research programs and supervision of laboratory personnel. Position offers unusual opportunity for career growth as both a scientist and manager.

Southern Research Institute offers a stimulating working environment, generous benefits, up-to-date research facilities, and an extensive technical library.

Birmingham offers abundant educational, cultural, and recreational opportunities, a progressive civic environment, attractive residential areas, a mild climate, and lower-than-average taxes and cost of living.

Send resume and salary requirements to:

Ms. D. D. Johnson  
SOUTHERN RESEARCH INSTITUTE  
P. O. Box 55305  
Birmingham, Alabama 35255-5305

An Affirmative Action/Equal Opportunity Employer

## NATIONAL INSTITUTE OF ARTHRITIS, DIABETES, AND DIGESTIVE AND KIDNEY DISEASES OFFICE OF THE DIRECTOR

## ASSOCIATE DIRECTOR FOR NUTRITION

Incumbent must be a recognized and respected leader in the field who plans, develops, and implements a high quality research program in nutrition. This involves identifying research needs and opportunities; working with other leaders in individual/specialized fields of nutrition; reviewing existing training programs to evaluate their effectiveness and identifies new training that might advance the field; and plans and develops conferences, workshops, and/or seminars in those areas that might be most productive.

Salary Range — \$56,945 to \$63,800 per annum

Position information and qualifications requirements may be obtained by contacting:

Mr. Clifford Moss, Executive Secretary,  
Search Committee for Associate Director for Nutrition  
Building 31, Room 9A34, National Institutes of Health  
Bethesda, Maryland 20205 (301) 496-4231

Applications (SF-171, CV and Bibliography) must be submitted to above address and postmarked not later than January 31, 1984.

AN EQUAL OPPORTUNITY EMPLOYER

## AAAS Memberships and Subscriptions

• Whenever you write us about your membership or subscription, please attach a Science address label to ensure prompt service.

• **Mail to:** Membership and Subscription Records, AAAS, 1515 Massachusetts Ave., NW, Washington, D.C. 20005.

☐ **Change of Address:** Please provide 6 weeks' notice. Paste an address label from a recent issue in the space provided. Print new address below.

☐ **Query:** If you have a question, place your address label here and attach this form to your letter.

• **To join or subscribe:** Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)

☐ **Membership rates** (individual only)  
☐ \$53 USA ☐ \$77 Canada ☐ \$80 Foreign  
☐ \$118 air-surface delivery via Holland

☐ **Subscriber rates**  
☐ \$90 USA ☐ \$114 Canada ☐ \$117 Foreign  
☐ \$155 air-surface delivery via Holland

☐ Payment enclosed ☐ Bill me later

Name  Please print

Address

City

State

Zip

SA16R41

ATTACH  
LABEL  
HERE

## POSITIONS OPEN

### RESEARCH ASSOCIATE—IMMUNOLOGIST

A junior staff position is immediately available to study the immunological mechanism of action of tuftsin, an immunomodulating peptide. Familiarity with various in vitro immunological assays is essential, and one year postdoctoral experience and ability to guide clinical trainees in a laboratory are desirable. Send your curriculum vitae and names and addresses of three references to: **Dr. Kenji Nishioka, The University of Texas M. D. Anderson Hospital and Tumor Institute at Houston, Surgical Research Laboratory, 6723 Bertner Drive, Box 107, Houston, Texas 77030. Equal Opportunity Employer.**

### DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH SCIENTIST

#### DIVISION OF MARINE AND FRESHWATER SCIENCE (DMFS) WELLINGTON, NEW ZEALAND

A vacancy exists in Wellington, New Zealand, at the New Zealand Oceanographic Institute (Division of Marine and Freshwater Science) for a physical oceanographer to study dynamic processes on the continental shelf. Applicants should have a Ph.D. with 1 to 2 years of postdoctoral (or equivalent) experience. A broad knowledge of physical oceanography is required, preferably including specific expertise in coastal exchange processes.

Salary up to NZ\$30,127 per annum, dependent upon qualifications and experience.

DMFS is a division of the Department of Scientific and Industrial Research having a staff of 56 engaged in marine physical geological and biological research housed in a new laboratory in Wellington and 18 at the Freshwater Laboratory at Taupo. Present facilities include a 1000-ton research vessel, a comprehensive oceanographic library, and a multi-user minicomputer linked to a network of VAX-11/780 computer with access to an IBM 3033 mainframe system.

Further information, application forms, and so forth, may be obtained from: **The New Zealand Embassy, Washington D.C.**

Applicants should quote vacancy number 6169 and forward applications accompanied by a résumé to:

**The Ambassador Extraordinary and Plenipotentiary  
New Zealand Embassy  
Observatory Circle, NW  
Washington D.C. 20008**

Applications must be received at the above address by 24 February 1984.

U.S. Department of Agriculture, Insect Ecology and Behavior Research, Yakima, Washington, is seeking a **SUPERVISORY RESEARCH ENTOMOLOGIST** to serve as research leader conducting research on biological control, insect ecology, vector-virus-plant interactions, and integrated pest management. Applicants must be U.S. citizens and should have knowledge of biology and ecology of fruit and vegetable insects, non-chemical method of insect pest control, vector-virus-plant interactions and system modeling. Salary range: \$34,930 to \$53,661. For announcement and application information, contact: **Mary Nell Tull or Roberta Saah, Special Examining Unit, Agricultural Research Service, U.S. Department of Agriculture, 6505 Belcrest Road, Room 555, Hyattsville, Md. 20782; telephone: 301-436-7315. An Equal Opportunity Employer.**

**TERRESTRIAL SYSTEMS ECOLOGIST.** Tenure-track position for established ecologist interested in terrestrial ecosystems. Should have external research funding. Must interact with established group of ecologists now carrying out funded research in ecosystems. Duties include graduate and undergraduate instruction, and research; may include research administration. Associate professor, or professor. Submit, by 15 February 1984, curriculum vitae, summary of recent and current research, and copies of four references to: **Dr. W. E. Hazen, Department of Biology, San Diego State University, San Diego, Calif. 92182-0057. Equal Opportunity/Affirmative Action/Title IX Employer.**

**TOXICOLOGIST.** Tenure-track assistant-associate professor position in toxicology, WOI Regional Program/Veterinary Medical Education, University of Idaho, available summer 1984. Applicants in field of modern toxicology invited to apply. Ph.D. or equivalent degree required. Duties include teaching professional/graduate courses. Establishment of vigorous, independent research program. Send letters of application, curriculum vitae, three references, and summary of research interests to: **Loren D. Koller, Veterinary Medicine, University of Idaho, Moscow, Idaho 83843.**

## POSITIONS OPEN

### RESEARCH FELLOW/RESEARCH ASSOCIATE.

Position available immediately for a person with a Ph.D. in biochemistry or related field. The successful candidate will join a team studying biochemical and functional changes in mammalian spermatozoa during maturation in the epididymis and capacitation in the female reproductive tract. Experience in one or more of the following areas is desirable: tissue culture, hybridoma technology, immunology and immunohistochemistry. The modern laboratory is located on the Atlantic Coast, 30 miles south of Cape Canaveral. Appointment is initially for 1 year, renewable for at least a second year. Salary is competitive, depending on experience. Applicant is expected to be able to compete successfully for NIH postdoctoral or similar fellowships. Send curriculum vitae and names of three references to: **Dr. Josef K. Voglmayr, Head, M.R.I. Division of Reproductive Biology, Florida Institute of Technology, 150 West University Boulevard, Melbourne, Florida 32901. An Equal Opportunity Employer.**

**THE AUSTRALIAN NATIONAL UNIVERSITY** invites applications for appointment to the position of **RESEARCH FELLOW** in the **DEPARTMENT OF PHYSICS, FACULTY OF SCIENCE.** The appointee will be required to participate in and supervise the research with free-piston shock tunnel and shock tube facilities. The research interests include: high enthalpy hypersonic flows, non-equilibrium processes in these flows, shock-propagation, and problems in fundamental atomic physics and astrophysics related to shock heated gases. The appointee should have a Ph.D. and experience in a field relevant to the above research. During 1984 the appointee will be required to participate in the teaching within the Department and in fields related to the above research. The appointment is to 31 December 1986. Salary in accordance with qualifications and experience within the range: Research Fellow A\$23,394 to A\$30,734 per annum. Current exchange rates: A\$1 = U.K.62P = U.S.\$91. Grants are provided towards travel and removal; assistance with housing; superannuation. The University reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants may obtain further particulars from: **The Registrar, The Australian National University, G.P.O. Box 4, Canberra, Australia,** with whom applications close on 28 February 1984.

### TRANSPLANTATION IMMUNOLOGIST

Ph.D. immunologist experienced in human tissue typing procedures (HLA/MLC) wanted to supervise new Transplantation Immunology Laboratory Section in support of active bone marrow transplant service. Position entails both service responsibilities and research opportunities and is available January 1984.

Interested individuals should submit curriculum vitae, concise statement of research experience and future goals, and names of three references to: **Marvin J. Stone, M.D., Charles A. Sammons Cancer Center, Baylor University Medical Center, 3500 Gaston Avenue, Dallas, Texas 75264. Equal Opportunity Employer.**

**THE UNIVERSITY OF HOUSTON-UNIVERSITY PARK** invites nominations and applications for the position of **VICE PROVOST FOR RESEARCH AND GRADUATE STUDIES.** The University is a comprehensive, state-supported, urban university, enrolling 31,000 undergraduate, graduate, and professional students in 13 colleges and schools. The budget for 1983-1984 is approximately \$200 million.

As the principal officer for research, the vice provost facilitates the development of research policy, programs, and funding and has direct responsibility for intercollege centers and laboratories. As the principal officer for graduate and professional studies, this person plays a central role in the enhancement, evaluation, and oversight of graduate faculty and programs.

Candidates should have an earned doctorate, demonstrated administrative competence, scholarly credentials sufficient for appointment to a tenured full professorship, strong research background, and extensive knowledge of graduate and professional education. Applications should include curriculum vitae and a list of five references with addresses and telephone numbers. **Deadline for applications is 15 February 1984.**

Nominations and applications may be sent to: **Dr. Robert V. Haynes, Chair, Vice Provost Search Committee, Office of the Provost, University of Houston-University Park, Houston, Texas 77004. An Equal Opportunity Employer.**

## POSITIONS OPEN

### RESEARCH ASSOCIATE

Postdoctoral position available at Albert Einstein College of Medicine to study intact cells and tissues by NMR in the laboratory of Professor Raj K. Gupta. Send curriculum vitae and three letters of reference to: **Dr. Raj K. Gupta, Professor of Physiology and Biophysics, Albert Einstein College of Medicine, Bronx, New York 10461.**

## CONFERENCE

**ENDOTOXIN CONFERENCE, AMSTERDAM, THE NETHERLANDS, 30 AND 31 MARCH 1984.** TITLE: International Conference on Endotoxin Assays Implications for Medicine and Production QA. REGISTRATION: U.S.\$40; deadline: 1 February 1984. Hotel reservations guaranteed by 21 January 1984. Contact: **Academical Medical Centre, Meibergdreef 9, 1105 AZ Amsterdam, The Netherlands. Telephone: 020-5665976, Telex: 84411944 AZUA NL. In the United States, telephone: 800-638-8174. Attention: ICEA.**

## GRANT ASSISTANCE

### E. W. Borrow Foundation

**FUNDS AVAILABLE FOR RESEARCH ON FLUORIDIZED MILK TECHNOLOGY, CARIOGENICITY AND GENERAL NUTRITION.**

Emphasis is on topical effects, metabolism, intolerance, flavorings-sweeteners, goats milk, fluoride sources, and distribution.

Requests for application packets, including brief abstract and cost estimate, should be sent to:

**Benjamin J. Legett, Jr., D.D.S., M.P.H.  
Louisiana State University  
1100 Florida Avenue—Box 221  
New Orleans, Louisiana 70119**

## PROGRAMS

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **The Dean of Admissions, The New England College of Optometry, Room 101, 424 Beacon Street, Boston, Mass. 02115.**

**M.S. AND Ph.D. GRADUATE PROGRAMS IN BIOMETRY;** \$6000 fellowships available on competitive basis in biostatistics, biomedical computing, systems science, or cardiovascular disease. For further information, contact: **Dr. Hurshell H. Hunt, Department of Biometry, Medical University of South Carolina, Charleston, S.C. 29425.**

## GRADUATE STUDY

### PREDOCTORAL TRAINING EFFECT OF DRUGS AND CHEMICALS ON LIVING SYSTEMS

Training, leading to the Ph.D. degree, is offered in modern chemical and biological concepts, the scientific approach and investigative technology required to participate in exciting career opportunities concerned with (i) how drugs and chemicals affect cell, tissue, and organ function, (ii) the discovery and development of new ways to treat or prevent diseases, and (iii) the discovery and development of new processes to protect living systems against the toxic effects of chemicals. Training is provided by a group of interdisciplinary investigators with expertise in organic chemistry, biochemistry, cell biology, biophysics, physiology, pharmacology, and toxicology. These investigators are concerned with fundamental and applied questions about how drugs and chemicals affect living systems, are well equipped and funded, and work with the trainees and with each other on closely related research projects. Stipends are available on a competitive basis. For further information, contact: **Graduate Training Director, Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29425.**

*Equal Opportunity/Affirmative Action Employer*



# The MX Missile and the Strategic Balance of Power

A collection of recent articles from **SCIENCE** on contemporary strategic ideology is now available for use by professionals, teachers, and researchers interested in the nuclear arms race.

"Anyone seeking a better understanding of the MX debate would do well to look at [this] series of brief, clearly written analyses."

—*The Boston Globe*

**Winner of the National Association  
of Science Writers 1982 Science-in-  
Society Journalism Award**

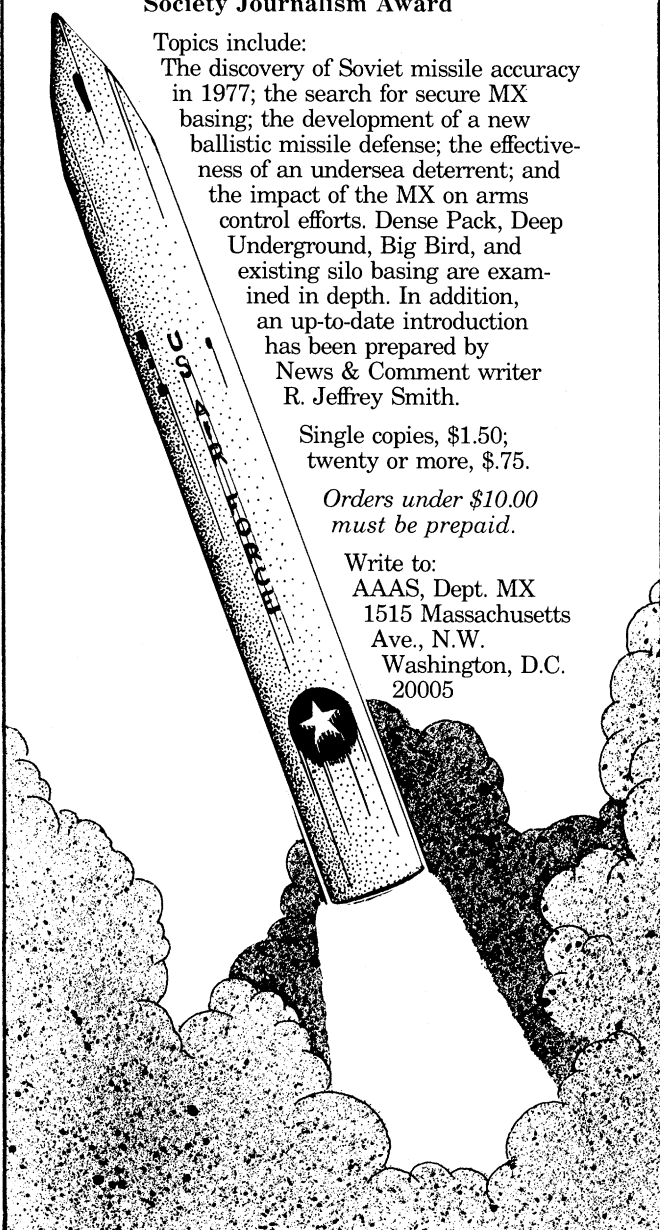
Topics include:

The discovery of Soviet missile accuracy in 1977; the search for secure MX basing; the development of a new ballistic missile defense; the effectiveness of an undersea deterrent; and the impact of the MX on arms control efforts. Dense Pack, Deep Underground, Big Bird, and existing silo basing are examined in depth. In addition, an up-to-date introduction has been prepared by News & Comment writer R. Jeffrey Smith.

Single copies, \$1.50;  
twenty or more, \$.75.

*Orders under \$10.00  
must be prepaid.*

Write to:  
AAAS, Dept. MX  
1515 Massachusetts  
Ave., N.W.  
Washington, D.C.  
20005



## SCIENCE

### SCIENCE Introduces "The Four-Day Close"

We now offer our recruitment advertisers the convenience formerly found only in daily newspapers. We call it "**The Four-Day Close.**" Instead of reserving space a month or more in advance, you now have until just four days before the issue is mailed to its 160,000-plus subscribers.

Film (right-reading, emulsion face down, 1/4 or 1/2 page size only) and insertion order must reach: **SCIENCE, Room 107, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005**, by 3 p.m. Mondays (except for legal holidays when material must reach Washington by 3 p.m. Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis.\*

Now you don't have to wait for the professional you need **as soon as possible**. Nor must you advertise in a Sunday paper that pans a lot of sand, but not much gold. Scientific employers know that **SCIENCE** ads fill the job better. Now they fill it faster, too.

We call it "**The Four-Day Close.**"

You can call it "**Instant Recruitment.**"

For further information, telephone **Dick Charles at SCIENCE: 212-730-1050**, or write: **1515 Broadway, New York, N.Y. 10036**.

\*At a 15% premium.

## GRADUATE STUDY

### DOCTORAL PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY AND PATHOBIOLOGY

Interdisciplinary program leading to Ph.D. degree seeks qualified candidates interested in fundamental molecular and cellular biology and its application to disease states in man.

Stipends are available on a competitive basis. Contact: **Director, Program in Molecular and Cellular Biology and Pathobiology**, College of Graduate Studies, Medical University of South Carolina, Charleston, South Carolina 29425.

## ASSISTANTSHIPS

**THE MEDICAL SCIENTIST TRAINING PROGRAM AT THE MEDICAL UNIVERSITY OF SOUTH CAROLINA** offers assistantships for a select number of individuals for training in an integrated basic and clinical medical science program leading to a combined M.D./Ph.D. degree in 6 to 7 years. For further information, please contact: **Director, Medical Scientist Training Program, Dean's Office**, College of Graduate Studies, Medical University of South Carolina, Charleston, South Carolina 29425.

## FELLOWSHIPS

### THE UNIVERSITY OF AUCKLAND New Zealand

#### POSTDOCTORAL FELLOWSHIPS

Applications are invited for postdoctoral fellowships to commence during 1984. Applications in any research field (including humanities and social sciences) will be welcomed but preference will be given to those in current growth research areas—such as biotechnology, genetic engineering, electronics—or in developing fields of economic importance to New Zealand such as tourism. The fellowships are available for either 1 or 3 years and are valued at N.Z. \$21,660 per annum. Conditions of appointment and application forms are available from: **The Association of Commonwealth Universities (Appointments)**, 36 Gordon Square, London WC1H 0FF, England; or **The Assistant Registrar (Academic Appointments)**, University of Auckland, Private Bag, Auckland, New Zealand, to whom applications should be forwarded by 14 February 1984.

The Division of Geological and Planetary Sciences at the California Institute of Technology expects to offer **POSTDOCTORAL RESEARCH FELLOWSHIPS** in one or more of the following areas: geology, geophysics, geochemistry, and planetary science. Interested persons are asked to contact: **Dr. Peter Wyllie**, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, Calif. 91125. *An Equal Opportunity/Affirmative Action Employer.*

#### POSTDOCTORAL FELLOWSHIPS

Departments of  
Cellular and Developmental Biology  
Organismic and Evolutionary Biology  
Harvard University

A limited number of postdoctoral research positions become available from time to time. Appointments are funded through research grants awarded to faculty members and are ordinarily for 1 year, sometimes renewable. For a list of faculty members who have postdoctoral positions available, write to the respective departmental office, **Harvard University**, 16 Divinity Avenue, Cambridge, Mass. 02138 (do not send applications).

*Harvard University is an Equal Opportunity/Affirmative Action Employer.*

#### DREXEL FELLOWSHIPS IN BIOMEDICAL ENGINEERING AND SCIENCE

These fellowships are supported by the Calhoun Endowment to Drexel University. Students can specialize in the following areas: artificial organs; bioinstrumentation; biomedical imaging and signal processing; biomedical science, biomaterials; biomedical systems and control; cardiovascular dynamics; diagnostic ultrasound; electrodes; heart assist devices; and rehabilitation engineering. Each fellowship provides a minimum of \$8500 tax-free stipend for a 12-month appointment plus waiver of tuition and fees beginning fall 1984. Deadline for application: 1 March 1984. For application, write: **Dr. Dov Jaron**, Director, Biomedical Engineering and Science Institute, Drexel University, Philadelphia, Pa. 19104.

## FELLOWSHIPS

### GRADUATE PROGRAM PHYSIOLOGY AND BIOPHYSICS

**Predoctoral fellowships** are available in highly active research and training programs of neurobiology, cell and membrane biology, and integrative physiology. Highly competitive stipends include full payment of tuition. Thirty pre- and postdoctoral students are currently enrolled in these programs. Participating faculty are: K. H. Berecek (cardiovascular physiology), R. J. Bradley (biophysics and neurobiology), S. M. Cain (respiratory physiology), S. T. Christian (brain chemistry), D. R. DiBona (structure and function of epithelia), F. F. Feagin (calcium metabolism), M. J. Friedlander (vision neurobiology), R. A. Frizzell (ion transport), M. C. Goodall (membrane biophysics), A. L. Goodman (reproductive biology), G. R. Hageman (neural control of the heart), J. H. Halsey, Jr. (cerebral vascular physiology), L. L. Hefner (cardiovascular physiology), L. G. Navar (renal physiology), J. D. Neill (neuroendocrinology), S. Oparil (cardiovascular physiology), H. W. Overbeck (hemodynamics), C. S. Pace (cell endocrinology), G. V. Pegrum (neurobiology of sleep), J. A. Schafer (membrane transport), C. S. Schneyer (salivary glands), G. M. Schoepfle (neurophysiology), R. L. Shoemaker (membrane transport), D. L. Sparks (vision neurophysiology), D. W. Urry (membrane biophysics), and W. T. Woods (cardiac electrophysiology). Contact: **Professor J. D. Neill**, Department of Physiology and Biophysics, University of Alabama in Birmingham, Birmingham, Ala. 35294; telephone: 205-934-4186. *Equal Opportunity/Affirmative Action Institution.*

### POSTDOCTORAL FELLOWSHIPS IN CELLULAR AND MOLECULAR BIOLOGY AT THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Fellowships are available in a multidisciplinary research training program focusing on the molecular, cellular, genetic, and developmental aspects of cells responding to perturbations of their milieu. The faculty include: J. Cleaver (DNA repair genes), R. B. Painter (DNA replication), R. Pedersen (early mammalian development), Z. Werb (phagocytes; extracellular matrix), and S. Wolff (cytogenetics).

Stipends are funded through a training program on the Basic Mechanisms of Carcinogenesis and Mutagenesis sponsored by the NIEHS. Appointments to begin July 1984. The requirements are U.S. citizenship or permanent residency, and a Ph.D. degree or equivalent. Send résumé, graduate transcript, statement of research interests, and three letters of recommendation by 31 March 1984 to: **Dr. Z. Werb**, Deputy Program Director, Laboratory of Radiobiology and Environmental Health, University of California, San Francisco, Calif. 94143. *An Equal Opportunity/Affirmative Action Employer.*

#### PREDOCTORAL FELLOWSHIPS IN PHARMACOLOGY

Qualified applicants interested in graduate studies in pharmacology are invited to apply for six available fellowships or research assistantships. The curriculum includes a core course which emphasizes a thorough knowledge of the basic principles of pharmacology and a laboratory course which stresses the use of sophisticated biomedical equipment and techniques. Specialization beyond the core curriculum is obtained in the research areas of faculty expertise. Departmental research interests include autonomic pharmacology, cardiovascular pharmacology, drug metabolism, endocrine pharmacology, metabolic regulation, neuropharmacology, and toxicology. Tuition waiver, an annual stipend of \$6888, research supplies and a professional travel allowance are available to qualified individuals. For information, contact: **Dr. Ezio Giacobini**, Professor and Chairman, Department of Pharmacology, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Ill. 62708. *An Equal Opportunity/Affirmative Action Employer.*

**Memorial Sloan-Kettering—POSTDOCTORAL RESEARCH FELLOWSHIP** available immediately. Applicants must have a strong background in molecular biology/genetics of animal viruses. Candidates with some experience in DNA technologies, including cloning, as well as a strong interest in tumor virology will be given preference. Interested individuals who are recent graduates from Ph.D. or M.D. programs should send full curriculum vitae and three letters of recommendation to: **E. L. Kleiner**, Personnel Department, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, N.Y. 10021. *Equal Opportunity Employer, M/F/H.*

## FELLOWSHIPS

### RESEARCH FELLOW

A **postdoctoral fellowship** position is available for a person with expertise in molecular biological techniques. The problem would involve the use of genetic techniques to cause a modification of the surface of enzymes involved in metabolically significant quinary interactions. Write: **Dr. Paul A. Srere (151B)**, VA Medical Center, Pre-Clinical Sciences, 4500 South Lancaster Road, Dallas, Texas 75216. *An Equal Opportunity University.*

**PEDIATRIC ENDOCRINE FELLOWSHIP.** Available July 1984 for 3-year period at Children's Hospital, Boston, and Harvard Medical School. At least 2 years of postgraduate training in either pediatrics or internal medicine required. A well-rounded program provides excellent clinical experience with training in basic clinical and laboratory research. Interested persons contact: **Dr. Constantine S. Anast** or **Dr. John F. Crigler, Jr.**, 300 Longwood Avenue, Boston, Mass. 02115.

### FELLOWSHIPS

#### HARVARD UNIVERSITY DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY POSTDOCTORAL FELLOWSHIPS

A limited number of postdoctoral research positions become available from time to time. Appointments are funded through research grants awarded to faculty members, are for one year, and are renewable. For a list of faculty members who have postdoctoral positions available, write, but do not send applications, to: **Nora Murphy**, Department of Biochemistry and Molecular Biology, Harvard University, 7 Divinity Avenue, Cambridge, Mass. 02138.

*Harvard University is an Equal Opportunity/Affirmative Action Employer.*

#### POSTDOCTORAL FELLOWSHIP

Available 1 July 1984, a 1- to 3-year NIH training grant fellowship which studies inherited and metabolic bone diseases and requires skills in cell biology and enzymology. Contact by telephone and forward a curriculum vitae and two letters of recommendation to: **Michael Whyte, M.D.**, Division of Bone and Mineral Metabolism, The Jewish Hospital, 216 South Kingshighway, St. Louis, Mo. 63110; telephone: 314-454-7765.

**POSTDOCTORAL FELLOWSHIP IN NEUROCHEMISTRY** available for Ph.D. or M.D. with training in analytical chemistry, especially HPLC. Work to be conducted on clinical research projects in autistic children. NIMH stipend available beginning July or September 1984. Interested applicants should contact: **Roland D. Ciaranello, M.D.**, Laboratory of Developmental Neurochemistry, Department of Psychiatry, Stanford Medical School, Stanford, Calif. 94305.

## MARKETPLACE

### BIBLIOFILE COMPUTER PROGRAMS

make scientific bibliographies, and are compatible with any CP/M-80 text editor/word processor. Restyle references to suit any journal, storing a menu of journals you use. Pull citations from text (and renumber them!). Store 400 refs per 100K disk space, search any field, alphabetize. See *Immunol. Today* 4:271. \$199 for any CP/M-80 computer (IBM-PC avail. early '84). **POWER TOOLS**, 48 Hunter's Hill Circle, Amherst, MA 01002 (413)256-0751. Manual only, \$29.

### Sale Special—hCG Beta

Highest Purity—less than .00014 contamination

Lyophilized—large quantity

Priced below market value

**IPI, 3326 Tallywood Cr., Sarasota, Fla. 33577**

**For Sale** 1973 Philips 300 electron microscope with eucentric goniometer and LN2 cooled stages. Excellent condition always maintained by Philips. Also, **desire to purchase** Philips 301 electron microscope. Reply to **Box 8, SCIENCE**.

# **KUWAIT INSTITUTE FOR SCIENTIFIC RESEARCH (KISR)**

The Kuwait Institute for Scientific Research is a non-profit organization with a staff of more than one thousand employees engaged in applied research in the fields of environmental and earth sciences, food resources, engineering, petroleum, petrochemicals and materials and technoeconomics.

Presently KISR has the following vacancies:

## **MICROBIAL GENETICIST**

### **Major Duties**

- Conduct research and development on strain improvement utilizing microbial genetic engineering techniques which includes mutation techniques, transformation and recombinant DNA techniques.
- Formulate projects related to the above specialty and establish a nucleus for genetic engineering laboratory.

### **Qualifications**

Applicants should have a Ph.D degree in Microbial Genetics with minimum 4 years of experience in advanced microbial genetics techniques.

## **FOOD TECHNOLOGIST**

### **Major Duties**

- Develop research proposals/projects related to food processing and food storage.
- To resolve problems of food industries related to quality control of meats and vegetables.

### **Qualifications**

Applicants should have a Ph.D degree in Food Technology with minimum six years of relevant experience.

## **MICROBIAL PHYSIOLOGIST**

### **Major Duties**

- Develop projects related to fermentation processes employing continuous culture techniques and conduct experiments related to hydrocarbon fermentation and biological waste treatment systems under optimized conditions.

### **Qualifications**

Applicants should have a Ph.D degree with a minimum of 4 years of experience in microbial physiology with emphasis on continuous culture techniques.

## **BIOENGINEER**

### **Major Duties**

- In charge of scale up and optimization studies for fermentation of SCP and biological wastewater treatment systems at pilot plant levels.
- Process control and monitoring engineering parameters for biological systems.
- Initiate and develop contract research proposals related to the above specialties.

### **Qualifications**

Applicants should have a Ph.D in Biochemical Engineering with minimum 5 years experience in continuous fermentation systems.

KISR offers attractive salaries (tax free) commensurate with qualifications and experience and generous benefits which include gratuity free furnished airconditioned accommodation, school tuition fees, contribution to a savings plan, six weeks annual paid vacation, air tickets, free medical care and life insurance.

Those interested may kindly send in their curriculum vitae with supporting information no later than January 31, 1984 to:

**Mr. Habeeb Al-Sahhaf**  
**Personnel Manager**  
**Kuwait Institute for Scientific Research**  
**PO Box 24885, Safat, Kuwait**



Through a century and a half of reliability you have known  
our products under the names of American Optical  
and AO Scientific Instruments. Our commitment  
today is to the level of excellence the world  
associates with our Reichert microscopes.

Announcing our new name...



**AO Reichert**

A DIVISION OF WARNER-LAMBERT TECHNOLOGIES, INC.

MICROSCOPES • MICROTOMES • FIBER OPTICS • OPHTHALMIC INSTRUMENTS  
HISTOPATHOLOGY PRODUCTS • ANALYTICAL INSTRUMENTS

Circle No. 62 on Readers' Service Card