

comprehensive introduction to mantle petrology and processes and to petrologists and geochemists who work on mantle-derived rocks or magmas. Although *Mantle Xenoliths* does have shortcomings (for example, the coverage of eclogite xenoliths is weak, and there is virtually no discussion of alpine-type peridotite massifs), it will undoubtedly prove a valuable resource to anyone who works on mantle-derived rocks. It brings together in one volume a vast array of data and ideas on mantle xenoliths and will serve as a springboard for future research on these fascinating rocks.

JOHN W. SHERVAIS  
Department of Geological Sciences,  
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Columbia, SC 29208

## Books Received

**The Acetylase Genes and Drug Response.** Wendell W. Weber. Oxford University Press, New York, 1987. xiv, 248 pp., illus. \$49.95.

**Advances in Cognitive Science.** Steps Toward Convergence. Manfred Kochen and Harold M. Hastings, Eds. Westview, Boulder, CO, 1988. xiv, 283 pp., illus. Paper, \$45; to AAAS members, \$36. AAAS Selected Symposia Series, vol. 104. Based on symposia, Los Angeles, CA, May 1985.

**Analysis of Vertebrate Structure.** Milton Hildebrand. 3rd ed. Wiley, New York, 1988. xviii, 701 pp., illus. \$42.50.

**Animal Cell Technology.** Principles and Products. M. Butler. Open University Press, Milton Keynes, U.K., and Taylor and Francis, Philadelphia, 1987. xii, 180 pp., illus. Paper, \$22. The Biotechnology Series.

**Application of Biotechnology.** Environmental and Policy Issues. John R. Fowle III, Ed. Westview, Boulder, CO, 1987. xii, 242 pp. Paper, \$25; to AAAS members, \$20. AAAS Selected Symposia Series, vol. 106. From a meeting, 1985.

**Chemical Triggering.** Reactions of Potential Utility in Industrial Processes. Gebran J. Sabongi. Plenum, New York, 1987. xii, 284 pp., illus. \$55. Topics in Applied Chemistry.

**Complex Mixtures.** Methods for In Vivo Toxicity Testing. National Research Council. National Academy Press, Washington, DC, 1988. xii, 227 pp., illus. \$35.

**Decision Making in Criminal Justice.** Toward the Rational Exercise of Discretion. Michael R. Gottfredson and Don M. Gottfredson. 2nd ed. Plenum, New York, 1987. xvi, 308 pp., illus. \$35. Law, Society, and Policy, vol. 3.

**Design and Analysis of Algorithms for Stochastic Integer Programming.** L. Stougie. Centrum voor Wiskunde en Informatica, Amsterdam, 1987. vi, 92 pp., illus. Paper, Dfl. 14.10. CWI Tract 37.

**The Destroyers.** The Underside of Human Nature. James Kern Feibleman. Lang, New York, 1987. viii, 187 pp. \$26. American University Studies, Series 11, vol. 17.

**Humans as Self-Constructing Living Systems.** Putting the Framework to Work. Martin E. Ford and Donald H. Ford, Eds. Erlbaum, Hillsdale, NJ, 1987. xiv, 409 pp., illus. \$49.95; paper, \$24.95.

**Hypervelocity Impact.** Charles E. Anderson, Jr., Ed. Pergamon, Elmsford, NY, 1987. xii, 759 pp., illus. \$115. *International Journal of Impact Engineering*, vol. 5. From a symposium, San Antonio, TX, Oct. 1986.

**Kalman Filtering with Real-Time Applications.** C. K. Chui and G. Chen. Springer-Verlag, New York, 1987. xvi, 191 pp., illus. \$39.50. Springer Series in Information Sciences, vol. 17.

**The Law of the Land.** Two Hundred Years of American Farmland Policy. John Opie. University of Nebraska Press, Lincoln, NE, 1987. xxii, 231 pp., illus. \$25.95.

**Management of Toxic Materials in an International Setting.** A Case Study of Cadmium in the North Sea. Lies Dekker, Blair T. Bower, and Rob Koudstaal. Balkema, Accord, MA, 1987. viii, 116 pp., illus. \$38.50. Coastal Water Series, no. 2.

**The Mediterranean Was a Desert.** A Voyage of the Glomar Challenger. Kenneth J. Hsu. Princeton University Press, Princeton, NJ, 1987. xvi, 197 pp., illus. Paper, \$8.95. Reprint, 1983 ed.

**Membrane Transport Processes in Organized Systems.** Thomas E. Andreoli et al., Eds. Plenum Medical, New York, 1987. xvi, 392 pp., illus. Paper, \$29.50. Reprinted from *Physiology of Membrane Disorders*, 1986.

**Methods in Computational Chemistry.** Vol. 1, Electron Correlation in Atoms and Molecules. Stephen Wilson, Ed. Plenum, New York, 1987. xviii, 363 pp., illus. \$65.

**Mixtures and Mineral Reactions.** J. Ganguly and S. K. Saxena. Springer-Verlag, New York, 1987. xii, 291 pp., illus. \$59. Minerals and Rocks, vol. 19.

**Modern Elementary Particle Physics.** Gordon Kane. Addison-Wesley, Redwood City, CA, 1988. xx, 344 pp., illus. \$39.95.

**Modern Mathematical Statistics.** Edward J. Dudewicz and Satya N. Mishra. Wiley, New York, 1988. xx, 838 pp., illus. \$44.80. Wiley Series in Probability and Mathematical Statistics.

**Monsoon Meteorology.** C.-P. Chang and T. N. Krishnamurti, Eds. Clarendon (Oxford University Press), New York, 1987. x, 544 pp., illus. \$85. Oxford Monographs on Geology and Geophysics, no. 7.

**Naturalized Birds of the World.** Christopher Lever. Longman Scientific, Harlow, U.K., and Wiley, New York, 1987. xx, 615 pp., illus. \$197.

**The Niche in Competition and Evolution.** Wallace Arthur. Wiley-Interscience, New York, 1987. xiv, 175 pp., illus. \$45.95.

**Polymer Science in the Next Decade.** Trends, Opportunities, Promises. Otto Vogl and Edmund H. Immergut, Eds. Wiley, New York, 1987. x, 284 pp., illus. + plates. \$100. From a symposium, New York, May 1985.

**Principles of Genetic Toxicology.** David Brusick. 2nd ed. Plenum, New York, 1987. xviii, 284 pp., illus. \$35.

**Proceedings of the International Symposium on the Impact of Oxygen on the Productivity of Non-Ferrous Metallurgical Processes.** (Winnipeg, Manitoba, Aug. 1987.) Vol. 2, Proceedings of the Metallurgical Society of the Canadian Institute of Mining and Metallurgy. George Kachaniwsky and Chris Newman, Eds. Pergamon, Elmsford, NY, 1987. viii, 283 pp., illus. \$56.

**Processing of Environmental Information in Vertebrates.** Milton H. Stetson, Ed. Springer-Verlag, New York, 1987. xii, 261 pp., illus. \$79. Proceedings in Life Sciences.

**Public Policy and Agricultural Technology.** Adversity Despite Achievement. Don F. Hadwiger and William P. Browne, Eds. St. Martin's, New York, 1987. x, 126 pp. \$37.50. Policy Studies Organization Series.

**Sample Pretreatment and Separation.** Richard Anderson. Published for Analytical Chemistry by Open Learning by Wiley, New York, 1987. xxxvi, 632 pp., illus. Paper, \$37.95.

**Science and Technology Education and Future Human Needs.** J. L. Lewis and P. J. Kelly, Eds. Published for the ICSU Press by Pergamon, Elmsford, NY, 1987. xii, 185 pp., illus. \$28; paper, \$16. Science and Technology Education and Future Human Needs, vol. 1. Based on a conference, Bangalore, India, 1985.

**A Sharp Lookout.** Selected Nature Essays of John Burroughs. Frank Bergon, Ed. Smithsonian Institution Press, Washington, DC, 1987. 606 pp., illus. \$39.95; paper, \$19.95.

**Signal Transduction and Protein Phosphorylation.** L. M. G. Heilmeyer, Ed. Plenum, New York, 1987. x, 400 pp., illus. \$75. NATO Advanced Science Institutes Series A, vol. 135. From a school, Spetsai, Greece, Sept. 1986.

**Sociobiological Perspectives on Human Development.** Kevin B. MacDonald, Ed. Springer-Verlag, New York, 1988. xvi, 405 pp., illus. \$43.

**The Symbiotic Universe.** Life and Mind in the Cosmos. George Greenstein. Morrow, New York, 1988. 271 pp., illus. \$18.95.

**Synthetic Aperture Radar.** J. Patrick Fitch. Springer-Verlag, New York, 1988. viii, 170 pp., illus. \$36.

**The Teaching of Practical Statistics.** C. W. Anderson and R. M. Loynes. Wiley, New York, 1987. xii, 199 pp. \$52.95. Wiley Series in Probability and Mathematical Statistics.

**Tropical Forest and Its Environment.** K. A. Longman and J. Jenik. 2nd ed. Longman Scientific, Harlow, U.K., and Wiley, New York, 1987. xii, 347 pp., illus. \$49.95. Tropical Ecology Series.

**Works and Lives.** The Anthropologist as Author. Clifford Geertz. Stanford University Press, Stanford, CA, 1988. x, 157 pp. \$19.95.

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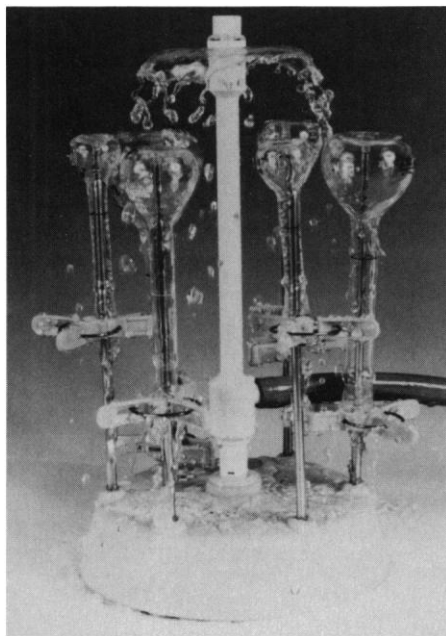
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### Densitometry Software

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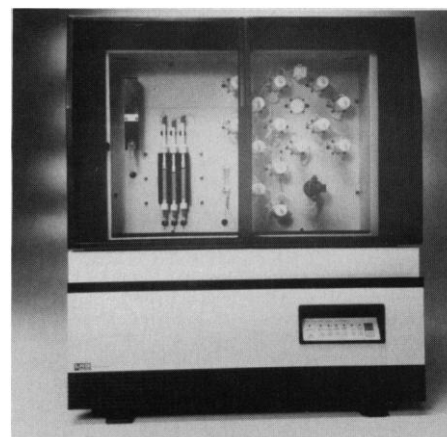
### Video Caliper

The Cue Micro-100 is a digital video caliper. The video camera's image, obtained either through a macro lens or from a microscope, is displayed on a high-resolution monochrome video monitor. The user moves vertical and horizontal lines by either a rotary control or a joystick until they are in the desired measurement position. These lines may be solid, dotted, or dashed. An

illuminated front panel displays a four-digit measurement in an arbitrary unit; however, panel controls allow this measurement to be calibrated to correspond to real metric or English measurements. Olympus, Precision Instrument Division. Circle 567.

### Automated Peptide Synthesizer

The Biolynx 4170 automatically synthesizes peptides by fluorenylmethyloxycarbonyl (Fmoc) polyamide chemistry. The synthesizer has an on-line monitoring sys-



tem, continuous-flow technology, and three reaction columns. To speed set-up, the Fmoc amino acid esters come in preweighed vials. Pharmacia LKB Biotechnology. Circle 561.

### Literature

*Infrared Gas Analysis* is a brochure that describes a line of variable long-path gas cells for infrared and Fourier-transform infrared spectrophotometers. Foxboro. Circle 441.

*Protect Your Vacuum Pump* is a brochure about refrigerated vapor traps for bioresearch vacuum pumps. Savant Instruments. Circle 442.

The *HEPA Filtered Dry Heat Sterilizers* brochure describes the features and construction of and accessories for single-door and pass-through dry-heat sterilizers. Hot-pack. Circle 444.

*Spectrometers and Light Measurement Systems* describes how to choose a spectrometer, tells the types of gratings and slits available, and compares models of a line of spectrometers. SPEX Industries. Circle 445.

The *Products for Science* 96-page catalog includes balances, baths, incubators, plasticware, pH equipment, meters, pipetting equipment, and other laboratory apparatus. J. & H. Berge. Circle 448.

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

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**ASSISTANT/ASSOCIATE PROFESSOR.** The Departments of Neuroscience and Neurological Surgery at the University of Florida College of Medicine are seeking to fill a tenure-track position with an anticipated starting date of 1 March 1989. The focus of this search is for an individual with research interests that could integrate with our Spinal Cord Injury and Regeneration Program which presently emphasizes neural tissue transplantation, neuroanatomy, electrophysiology, and behavior (i.e., psycho-physics). Applications are being sought from individuals with complementary expertise (e.g., in neuropharmacology of spinal cord function, identification and expression of trophic and/or tropic factors in the injured CNS, or neuroimmunology). The successful candidate will be expected to establish an independent research program and to participate in teaching medical and graduate courses. We encourage applications from persons having a Ph.D. and/or M.D. degree and a minimum of 2 years of postdoctoral experience.

Persons interested in applying for this position should send their curriculum vitae, a brief overview of present and future research directions, and the names, addresses, and telephone numbers of four references by 1 October 1988 to: **Dr. Paul J. Reier, Department of Neurological Surgery, University of Florida College of Medicine, JHM Health Center, Box J-265, Gainesville, FL 32610-0265**.

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The Department of Psychobiology emphasizes interdisciplinary approaches to the study of the nervous system and behavior. The current major research themes of the Department are development, reorganization following injury and disease, and learning and memory.

Please submit by 1 October 1988, curriculum vitae, description of research interests, and three confidential letters of recommendation to: **Dr. James L. McGaugh, Chair, Department of Psychobiology, University of California, Irvine, CA 92717**.

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### ASSISTANT PROFESSOR MOLECULAR NEUROBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for a tenure-track position at the level of assistant professor in molecular neurobiology. Preference will be given to applicants who have demonstrated expertise in applying molecular biology to research problems within the themes emphasized by our Department.

The Department of Psychobiology emphasizes interdisciplinary approaches to the study of the nervous system and behavior. The current major research themes of the Department are development, reorganization following injury and disease, and learning and memory.

Please submit by 1 October 1988, curriculum vitae, description of research interests, and three confidential letters of recommendation to: **Dr. James L. McGaugh, Chair, Department of Psychobiology, University of California, Irvine, CA 92717**.

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Associate Dean for Academic Administration  
Harvard School of Public Health  
677 Huntington Avenue  
Boston, MA 02115

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Cedars-Sinai Medical Center  
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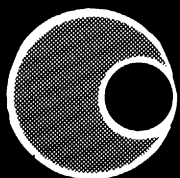
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Qualified candidate will have a doctorate in science, science education, or a related discipline, and experience as a teacher, supervisor, or administrator in the elementary or secondary schools. Must understand the social and political structure of the education system in the United States. Experience in coordinating education projects that involve states, school districts, and universities and familiar with all aspects of curriculum development. Collegiality, inventiveness, energy, commitment to educational reform, and the ability to facilitate the work of others will be major considerations for the position.

For immediate consideration, please submit your resume and salary history in confidence to:

**Debra Wright  
American Association for the  
Advancement of Science  
Personnel Office  
1333 H Street, N.W.  
Washington, D.C. 20005**

## DIRECTOR, OCEAN ENGINEERING DIVISION

The Office of Naval Research (ONR) is seeking an outstanding individual to serve in this Civil Service position in the Senior Executive Service. Salary range is \$64,700 to \$73,400, depending on qualifications. In addition to salary, career SES appointees are eligible to compete for performance awards and bonuses.

The Director, Ocean Engineering Division is responsible for providing leadership, coordination and direction for ONR's \$16M fundamental research programs in ocean technology, coastal sciences, research facilities and remote sensing. The goal of the Division is to understand the interactions of ocean processes with man-made structures, and sensors and systems. The Division Director is the scientific administrator of ONR R&D activity in the described fields with full responsibility for staffing his/her program, establishing overall priorities and procedures, and recommending change in program objectives and policies to the Director, Ocean Sciences Directorate. The Division Director serves as the principal consultant to the Navy on developing naval applications in ocean engineering and related fields.

Candidates should possess a Ph.D. or equivalent in engineering, oceanography or physics and have significant experience in ocean engineering or a related field. Considerable experience in the administration and management of research and its application to development is also required.

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

### OFFICE OF THE CHIEF OF NAVAL RESEARCH

Civilian Personnel Division, Code 01242P, Attn: Announcement 88-45 (S)  
800 North Quincy Street, Arlington, VA 22217-5000

Applications will be accepted through 19 August 1988 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplement forms, please call (202) 696-4705.

U.S. CITIZENSHIP REQUIRED • AN EQUAL OPPORTUNITY EMPLOYER



## OLIGONUCLEOTIDE CHEMIST

We seek an individual to operate a central facility in nucleic acid chemistry in the Cancer Center of the Worcester Foundation for Experimental Biology. This position, and the facility, is supported by a NCI Cancer Center core grant (Dr. Thoru Pederson, Principal Investigator). The appointee will be responsible for automated synthesis of oligonucleotides for cloning, sequencing and hybridization projects in the Center, and for organic synthesis of modified nucleotides and oligonucleotides. The facility is associated with a group working on therapeutic applications of antisense oligonucleotides (Drs. Paul Zamecnik and John Goodchild), and the appointee will have scientific interactions with this and other nucleic acid-gene expression research groups in the Center. A Ph.D. degree in Organic Chemistry is preferred although other candidates with relevant experience in oligonucleotide chemistry will be considered. The Worcester Foundation is a nonprofit, basic research institute located on a 100-acre wooded campus 38 miles west of Cambridge. Send curriculum vitae and a synopsis of research interests and career objectives including the names of three individuals who can be contacted to: **Oligonucleotide Chemist, C/O Personnel Office.**

**Worcester Foundation for  
Experimental Biology  
222 Maple Avenue  
Shrewsbury, MA 01545 USA**

**AN EQUAL OPPORTUNITY/AFFIRMATIVE  
ACTION EMPLOYER M/F/H**

## ODENSE UNIVERSITY, DENMARK PROFESSOR OF ECOLOGICAL PHYSIOLOGY

A position as Professor is vacant at the Institute of Biology. The present salary is Dkr. 377,198.19 per year. It is desirable that applicants have a broad background knowledge of biology and research experience in ecological physiology, preferably in the aquatic environment. Research at the Institute mainly concerns environmental responses and adaption mechanisms. The Institute is well equipped with modern apparatus and has a field laboratory with running sea water. Additional information, including the full text of the advertisement, can be obtained from the Head of the Department. Applications should be addressed to the Queen of Denmark and sent in 5 copies (5 copies of publications) to Odense University, Campusvej 55, 5230 Odense M, Denmark. The application must include information regarding the applicant's pedagogical qualifications and be received no later than September 1, 1988 kl. 12.00.



**ODENSE  
UNIVERSITET**

**CAMPUSVEJ 55  
5230 ODENSE M  
TLF. 09 15 86 00**

## AERONOMER - BRANCH CHIEF SPACE SCIENCE LABORATORY NASA/George C. Marshall Space Flight Center Huntsville, Alabama 35812

The Solar-Terrestrial Physics Division is seeking a highly qualified individual to serve as Chief of the Atomic Physics and Aeronomy Branch. The Branch is involved in an active research program in the physics and chemistry of the upper atmosphere and ionosphere. Research Programs are currently underway in stratospheric, meso-spheric, thermospheric, and lower magnetospheric photochemistry, energetics, and dynamics. Instruments for Space Shuttle, satellite, and high altitude balloon investigations of these regions currently emphasize state-of-the-art optical systems over wavelengths extending from the extreme ultraviolet to the infrared. Well-equipped laboratory facilities are available within the Branch to support instrument design, development, and calibration. Computer facilities available include VAX minicomputers together with IBM and CRAY machines. Extensive theoretical modeling of the thermosphere, ionosphere, and plasmasphere is underway, and efforts will be made to strengthen modeling of the middle atmosphere. In addition to performing his/her own research, the incumbent will be expected to guide the work of the Branch and to pursue new directions as appropriate. Salary will be \$46,679 - \$71,377, depending on experience and qualifications. Further technical information concerning the position can be obtained by calling Dr. M. R. Torr (205-544-7676).

**Qualifications:** The successful candidate must be a recognized research scientist with administrative interest. In addition, candidates must have completed an appropriate professional academic background in science and/or engineering, plus have increasingly responsible experience directly related to the duties of the position.

To apply, forward a resume or Application for Federal Employment (SF-171), along with a list of publications, to NASA/George C. Marshall Space Flight Center, CM44/S. Payne, Huntsville, AL 35812. Forms may be obtained by calling 205-544-7530. Deadline for filing is September 30, 1988.



**An Equal Opportunity  
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**U.S. Citizenship Required**

## CHEMEX PHARMACEUTICALS/ YALE UNIVERSITY

Two positions are available at the level of a postdoctoral fellow to work on a "Oligonucleotide Directed Photochemistry" project, which involves photomodification of anti-sense DNA with photoactivable compounds; characterization of nuclease sensitivity; membrane transport and target specificity.

Requirements include a Ph.D. in Biochemistry or Molecular Biology with 0-3 years postdoctoral experience in Molecular Biology. Experience in HPLC, Oligonucleotide and DNA synthesis and purification is preferred, but not required. Highly competitive salary commensurate with experience.

The successful candidate will work in the Department of Dermatology at Yale University in New Haven for a period of two years at the end of which that individual will be considered for a position at CHEMEX PHARMACEUTICALS to continue research in the area of molecular biology of skin diseases and disorders and discovery of new drugs.

For confidential consideration please forward your personal letter and curriculum vitae to both:

**Dr. Frank Gasparro  
Department of Dermatology  
Yale University  
P.O. Box 3333 (HUNTER A-615)  
New Haven, Conn. 06510**

**Dr. Atula Khandwala  
Vice President, Research  
CHEMEX PHARMACEUTICALS, INC.  
1401 Seventeenth St., Suite 850  
Denver, Colorado 80202**

# POSTDOCTORAL POSITIONS

**A**

s one of the most dynamic and progressive pharmaceutical and medical research organizations in the world. Scientists who join Hoffmann-La Roche find professional challenges and rewards that can not be equalled. We currently have several postdoctoral openings:

## ASTHMA/ALLERGY RESEARCH

One position will involve investigating the regulation of signal transduction in models for mast cell function. To qualify, you will need a PhD in biochemistry/pharmacology and experience with SDS-PAGE electrophoresis. Familiarity with  $Ca^{+2}$  measurement techniques, and demonstrated success in the fields of protein and lipid biochemistry are preferred. **Please refer to Position AG.**

The other position will involve investigating mechanisms and modulation of airway hyperreactivity/late phase asthmatic responses, including the role of inflammatory mediators and eosinophils in pulmonary disease. A PhD in biochemistry, pharmacology or physiology is required; experience with inflammatory mediators is desirable. **Please refer to Position WS.**

## CARDIOVASCULAR RESEARCH

This position will involve studying the cellular and metabolic bases of ischemia/reperfusion injury. A PhD in biochemistry or cardiac physiology is required; experience with ex vivo perfused heart is desirable. **Please refer to Position DJ.**

Hoffmann-La Roche offers an environment conducive to discovery, as well as comprehensive compensation packages. For confidential consideration, please send your curriculum vitae, indicating position of preference and salary requirements, to: **Ms. R. Chiaramonte, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



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A Healthier Tomorrow.

## IBI POSITION OPENINGS

### PRODUCT MANAGEMENT

To fulfill IBI's dedication to supplying high quality, innovative products to the molecular biology research market, we are expanding our marketing group to include product managers for enzymes and for DNA synthesis.

These exciting positions require skills in marketing, product development and in interfacing with researchers on the cutting edge of molecular biology.

The ideal candidates will have first hand experience in the Marketing or Sales of sophisticated laboratory equipment or research products to the life sciences market.

### RECOMBINANT DNA WORKSHOP INSTRUCTOR

This position is an exciting opportunity for a molecular biologist to combine teaching, marketing and travel. Responsibilities include scheduling, managing and teaching 4-day training programs in recombinant DNA technology. The ideal candidate will have a Ph.D. in molecular biology or a related field, extensive laboratory experience in gene cloning and exceptional organizational and interpersonal skills. Approximately 50% travel is required.

### DNA SEQUENCING WORKSHOP INSTRUCTOR

This position is an exciting opportunity for a molecular biologist to combine teaching, marketing and travel. Responsibilities include developing, scheduling, managing and teaching short courses in dideoxy sequencing technology. The ideal candidate will have significant laboratory experience in sequencing DNA and exceptional organizational and interpersonal skills. Approximately 50% travel is required.

### SOFTWARE PRODUCT SPECIALIST

IBI is currently seeking a Programmer/Biologist to direct the development and maintenance of our sequence analysis software for microcomputers. The ideal candidate must have a graduate degree in the Biological Sciences and have a proven track record in developing software for microcomputers. A proficiency in C is required and experience with both PC-DOS and Macintosh systems helpful.

**Interested candidates should mail their resumes to:**

*Position Title*  
International Biotechnologies, Inc.  
A Kodak Company  
P.O. Box 9558 • New Haven, CT 06535

**IBI**

A Kodak Company

## POSITIONS OPEN

### CELL BIOLOGY FACULTY

The Biology Division at the California Institute of Technology has a tenure-track faculty position open in the areas of cell biology or cellular neurobiology. These fields are broadly defined and include biophysical, structural, biochemical, and immunological approaches. *Applications from women and minority candidates are especially encouraged.* Interested persons should submit curriculum vitae, a statement of research interests, and the names of three references to:

Cell Biology Search Committee  
c/o Candace Hochenadel  
Division of Biology 216-76  
California Institute of Technology  
Pasadena, CA 91125

New Endowed **CHAIR IN GASTROENTEROLOGY** at University of California, Los Angeles (UCLA) School of Medicine, Dorothy and Leonard Straus Professorship. Search committee seeking accomplished clinical gastroenterologist of great distinction in science. *UCLA is an Equal Opportunity Employer.* Send curriculum vitae to: **Sherman Mellinkoff, M.D., Department of Medicine, UCLA School of Medicine, Los Angeles, CA 90024.**

### CHAIRMAN, DEPARTMENT OF PEDIATRICS

The University of Florida College of Medicine seeks a distinguished academic pediatrician to serve as Professor and Chairman of the Department of Pediatrics. Applicants should have an M.D. degree, Board Certification in Pediatrics (or equivalent), a record of significant accomplishments in research, clinical skills in pediatrics, and a clear commitment to the teaching of medical students and to post-graduate education. Applications, including curriculum vitae, bibliography, and the names and addresses of at least five persons that may be contacted for reference should be sent before 26 August 1988 to: **Jerome H. Modell, M.D., Chairman, Pediatric Search Committee, College of Medicine, University of Florida, Box J-254, JHMHC, Gainesville, FL 32610.** The earliest anticipated starting date is 1 January 1989. *Equal Opportunity/Affirmative Action Employer.*

### CONSULTING TOXICOLOGIST

Exxon Biomedical Sciences, Inc. has an opening for a qualified toxicologist in our chemical and petroleum groups. The successful candidate will have a Ph.D. in toxicology with 0-3 years of experience and be knowledgeable in the design of toxicology studies for petroleum and chemical products. Consulting activity includes product line interaction, literature evaluation, general biomedical research as well as governmental/regulatory body interactions and risk assessment. The position requires extensive consulting with Exxon Affiliates world wide. Client interactions are an important aspect of our work, and thus we are seeking individuals who possess excellent communication skills. Please forward résumé to: **Human Resources,**

EXXON BIOMEDICAL SCIENCES, INC.  
CN 2350, Mettlers Road  
East Millstone, NJ 08875-2350  
*Equal Opportunity Employer M/F/H/V*

### CONSULTING TOXICOLOGIST

Exxon Biomedical Sciences, Inc. has an opening for a qualified toxicologist in our chemical and petroleum groups. The successful candidate will have a Ph.D. in toxicology with 3-5 years of experience and be knowledgeable in the design of toxicology studies for petroleum and chemical products. Consulting activity includes product line interaction, literature evaluation, general biomedical research as well as governmental/regulatory body interactions and risk assessment. The position requires extensive consulting with Exxon Affiliates world wide. Client interactions are an important aspect of our work, and thus we are seeking individuals who possess excellent communication skills. Please forward résumé to: **Human Resources,**

EXXON BIOMEDICAL SCIENCES, INC.  
CN 2350, Mettlers Road  
East Millstone, NJ 08875-2350  
*Equal Opportunity Employer M/F/H/V*

## POLLUTANT TRANSPORT AND REACTIONS IN SOILS OR INDOOR ATMOSPHERES

The Lawrence Berkeley Laboratory's Indoor Environment Program is seeking highly qualified scientists to perform research on the behavior of radon or organic chemicals inside buildings or in the ground near building foundations. A Ph.D. or equivalent Degree in Chemistry, Physics, Geology, Environmental Engineering, or related fields is required, with substantial experimental or theoretical capabilities applicable to investigation of fundamental transport and reaction processes.

**STAFF SCIENTIST II (C/4743)** Available for an individual who has at least 5 years' experience beyond the BA Degree and has demonstrated a strong capability for productive research in areas related to those of the program (see above description). Ph.D. preferred.

**STAFF SCIENTIST III (C/4701)** Requires 5 or more years' experience, in addition to the Ph.D., and strong evidence of research and leadership capabilities. The successful candidate will initially perform research in existing areas, with the expectation of developing new efforts and contributing to the leadership of the program. Position requires capabilities and interest in conducting fundamental research in an interdisciplinary field, the ability to work well with and stimulate others, and a record of effective communication and publication.

Competitive salary commensurate with experience, plus comprehensive benefits. Please send resume, including publication list, names of references (must indicate Job C/4743 or C/4701) to: Employment Office, Lawrence Berkeley Laboratory, 90-1012, #1 Cyclotron Road, Berkeley, CA 94720, (415) 486-4226. An Equal Opportunity Employer, M/F/H.



LAWRENCE  
BERKELEY  
LABORATORY

# Analytical Chemists

Smith Kline & French Laboratories, in suburban Philadelphia, is seeking qualified, B.S./M.S. Analytical Chemists to join their Pharmaceuticals group. Experience in instrumental analysis and wet chemical analysis is required as well as in development and validation of new analytical methods. Candidates with specific experience in HPLC, GC, spectrophotometry or dissolution testing would be highly desirable. Good interpersonal skills, a sense of commitment and teamwork and a preference for a fast-paced, creative environment would mark the ideal candidates.

We offer an excellent compensation and benefits plan and opportunities for professional growth and development. For confidential consideration, please forward your resume and the names of three references to **Liz McKendry, Associate Employment Administrator, L010, SK&F Laboratories, P.O. Box 1539, King of Prussia, PA 19406-0939.** We are an equal opportunity employer, M/F/H/V.

# SK&F

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LET Corporation is a well-funded start-up company, chartered to carry out a vigorous research and development program concerning human immune cell receptors and growth modifiers. That program is aimed at the discovery of basic knowledge leading to the development of effective pharmaceuticals that will impact the clinical management of disease. LET has several assets already in place including an active collaboration with a major academic research center and novel technology developed from progress made in its research effort.

LET Corporation is seeking three scientists with experience and ability to form and lead groups in Molecular Biology, Protein Chemistry, and Immunology to both discover and develop novel compounds for the treatment of immune system diseases. Compensation packages, including stock options, will be designed for each group leader. All will report to the Scientific Director.

## MOLECULAR BIOLOGIST

This position requires a Ph.D., 4 plus years beyond the post-doctorate, with academic or industry experience in prokaryotic and eukaryotic expression systems, including CHO and in any of the following aspects of the molecular biology of human T-cells: molecular genetics, control of gene expression, virology. The ability to make significant and original contributions to basic science will be reflected in the publication record. The candidate will have supervisory experience to form and lead a small group focused on molecular biology or viral molecular biology and apply molecular biology to protein production.

## PROTEIN BIOCHEMIST

This position requires a Ph.D., 2 plus years beyond the post-doctorate, with academic or industry experience in microsequencing, analysis of protein structure and its relationship to function, and protein purification, especially hormones or lymphokines, receptors and cell surface structures. The candidate must have experience in the application of such research to drug design. The candidate will have supervisory experience to form a small group to characterize novel proteins and peptides derived from the immune system and to devise means to purify and enhance the activity of such molecules. Preference will be given to candidates with prior experience with human T-cell receptors and lymphokines.

## CELLULAR IMMUNOLOGIST

This position requires a Ph.D. plus at least four years experience beyond the post-doctorate in human T-cell lymphokines and receptor structures. In addition, the candidate will have experience in the development of monoclonals for immune cell surface structures and proteins and their use in elucidating the mechanisms controlling the immune response. The candidate will have supervisory experience to form a group to identify and test receptor structures and cytokinins with pharmacological value.

Interested scientists should send their CV's and telephone number where they can be contacted to: Ms. Annette Bass, Personnel Department, LET Corporation, 359 Allston Street, Cambridge, Mass. 02139. All materials received will be treated as a confidential communication.

# LET

C O R P O R A T I O N

## If Research Is What You Do Best...

### *Break through to a new world of possibilities in biotechnology.*

As the innovative leader in today's dynamic industry... biotechnology, Genetics Institute can offer you a research environment that's rich in creativity and entrepreneurial spirit. Whether your background stems from academia or another research setting, we at Genetics Institute encourage our research professionals to explore their talents in a stimulating, scientific atmosphere. It is this type of environment that has enabled our research team to make the kind of contributions deserving of our reputation in the application and creation of recombinant DNA technology.

### Protein Purification

We are seeking creative individuals to develop purification schemes for novel pharmaceuticals, such as blood cell differentiation factors and thrombolytic agents. Suitable applicants will have a Ph.D. degree, a strong background in protein biochemistry and extensive experience and interest in protein purification. The position carries direct responsibility for developing procedures for purification of both bacterial and mammalian expressed proteins, up to the point at which clinical production commences. Beyond this point, there will be ongoing responsibility for biochemical aspects of the large scale production process. It will be essential that applicants for this key position have an understanding of purification scale up and the ability to interact with personnel in other disciplines, especially engineering and production. There will also be considerable opportunity to interact with peptide and carbohydrate chemists, as well as cell biologists, in exploring structure/function relationships of protein of interest.

We also have positions open at the BS/MS level in this area and welcome applications from suitably qualified applicants.

### Structural Protein Chemistry

An exciting opportunity exists for a highly motivated individual to join our Structural Protein Chemistry group. This person will be expected to provide scientific leadership in the development of strategies oriented toward the structural characterization of recombinant DNA derived pharmaceutical proteins. Candidates should hold a Ph.D. in Biochemistry, with experience in protein sequencing, amino acid composition analysis, chemical modification and peptide mapping strategies. Candidates with a background in exploring functional domains in enzymes or glycoprotein hormones would be particularly well suited. This position will offer scientists the challenge of interacting with experts in other disciplines such as biophysical chemistry, carbohydrate chemistry and biomolecular mass spectrometry and the responsibility of taking a project from conception to completion.

We also have openings for talented BS/MS level Research Associates interested in pursuing structure/function studies on recombinant DNA-derived proteins. Candidates should have a general background in protein biochemistry and a working knowledge of techniques utilized to examine protein structure (i.e. SDS-PAGE, IEF, Western Analysis, enzyme assays, and/or HPLC of peptides and proteins).

**These positions will be based out of our newly renovated facility in Andover, Massachusetts, within commuting distance to Boston and Southern New Hampshire. We offer an excellent compensation and benefits package, including relocation, as well as a stimulating scientific environment and substantial growth potential. Qualified applicants should forward their resumes, in confidence, to: Sheri Rist, Genetics Institute, 87 CambridgePark Drive, Cambridge, MA 02140.**

An Equal Opportunity Employer

## Genetics Institute

**"MARINE POLICY ANALYST"  
RESEARCH ASSOCIATE  
East-West Center**

The East-West Center, established in 1960 by the United States Congress which provides principal funding, is a public nonprofit educational institution, with an international board of governors. Support also comes from Asian and Pacific governments, international organizations, and private institutions.

Applications are being accepted for a Research Associate position in the Environment and Policy Institute (EPI), the chief concerns of which are problems of environmental quality and resources management. The position is for three years with the possibility of extensions. The Research Associate will work as part of a collaborative, interdisciplinary, multinational team undertaking research and other activities pertaining to marine resources management. Responsibilities include policy-related research and publication, organizing and contributing to conferences, collaborating in the preparation of marine policy atlases and other publications, and maintaining liaison with research personnel engaged in ocean-related studies in the Asia-Pacific region.

**Required Qualifications:** Ph.D. in a natural or social science, or a higher degree in another field concerned with or related to marine policy studies. A strong English-language publications record in marine policy. Professional experience in the Asia-Pacific region with first-hand knowledge of at least one country in the region as demonstrated by publications or other evidence.

**Preferred Qualifications:** Reading knowledge of an Asian language. Familiarity with the preparation of atlases, particularly in the field of ocean affairs and resources management.

**Salary Range:** \$27,716 to \$46,679 per year, depending on qualifications, plus cost-of-living allowance currently at 22.5% (subject to change).

Submit resume with cover letter which includes title of position you are applying for, a narrative detailing relevance of your qualifications to the responsibilities of the position, and names and addresses of three professional references. Applications must be postmarked by September 15, 1988. Send to: **Rebecca Dixon, Personnel Office, Dept. 19, East-West Center, 1777 East-West Road, Honolulu 96848.**

*An Equal Employment Opportunity/Affirmative Action Employer*

**PROJECT ASSOCIATE IN CELL BIOLOGY AND  
POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS**

at the Integrated Microscopy Resource for  
Biomedical Research (IMR)  
at the University of Wisconsin-Madison

Two positions are available. The IMR offers high voltage electron microscopy, video-enhanced light microscopy, low voltage scanning electron microscopy, and laser scanning and tandem scanning confocal microscopy.

**1. PROJECT ASSOCIATE IN CELL BIOLOGY.** Applicants should have a Ph.D. or an advanced degree in cell biology and five years of practical experience in several phases of structural investigations with TEM and, ideally, computer-based video-enhanced microscopy, SEM and immunofluorescence and immuno-electron microscopy. The successful individual will be expected: 1. to participate in Core research projects which integrate high voltage electron microscopic analyses with video, LVSEM, and confocal imaging; 2. to Collaborate on research projects with investigators on campus and nationwide; 3. to assist and instruct users in the operation of the million volt HVEM; 4. to assist in the Training and Dissemination activities of the IMR. Salary: \$24,000-30,000 annually.

**2. POSTDOCTORAL RESEARCH ASSOCIATE.** Applicants should either have a Ph.D. in cell biology or expect to earn this degree prior to the start of this appointment. Research interests in utilizing and developing the usage and integration of several sophisticated microscopes for the study of cellular dynamics are particularly encouraged. Salary: NIH rates for postdoctoral investigators.

In addition, the Integrated Microscopy Resource for Biomedical Research welcomes all qualified investigators to conduct studies requiring high voltage electron microscopy (HVEM), video-enhanced light microscopy, low-voltage scanning electron microscopy, and laser scanning and tandem scanning confocal microscopy. Travel funds for first-time users and short term stipends for doctoral and postdoctoral visitors are available on a competitive basis.

Please forward a curriculum vitae with a list of individuals who could be contacted for letters of recommendation and two recent reprints, by **August 5, 1988** to:

**Dr. Gerald Schatten, Director  
Integrated Microscopy Resource for Biomedical Research  
University of Wisconsin-Madison  
1117 W. Johnson Street  
Madison, WI 53706**

*An Equal Opportunity Employer, M/F.*

## SR. RESEARCH SCIENTIST

### Molecular Biology Enzymes

Experienced enzymologist required to work on the development and applications of enzymes used in molecular biology research. The successful candidate is likely to have a PhD and postdoctoral experience in the purification, characterization and use of enzymes which cleave or modify DNA.

PHARMACIA P-L Biochemicals is a thriving subsidiary of PHARMACIA LKB Biotechnology, responsible for the development and production of molecular biology reagents. We offer a stimulating work environment, a competitive salary and benefits package, and the opportunity to work close to the shores of Lake Michigan.

For consideration please send your resume to:

**SUSAN HOIST, ADMINISTRATIVE ASSISTANT,  
PHARMACIA P-L BIOCHEMICALS, INC., 2202 N.  
BARTLETT AVE, MILWAUKEE, WI 53202.**

*We are an equal opportunity employer M/F/H/V.*



**Pharmacia  
P-L Biochemicals**

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1515 BROADWAY  
NEW YORK, N.Y. 10036**



## GLAXO INSTITUTE FOR MOLECULAR BIOLOGY S.A.

The Geneva biotechnology research unit of the largest U.K. pharmaceutical group has a vacancy for a

# PROTEIN CHEMIST

The Glaxo Institute for Molecular Biology provides a molecular basis for discovering effective new medicines. Projects include viral and fungal therapeutics, inflammatory diseases, and regulation of cell proliferation and differentiation.

The Institute has a staff of over one hundred, grouped in small teams of specialists from several domains of modern biology. We are part of the Glaxo Group – one of the largest pharmaceutical companies in the world – which has an outstanding reputation for the quality of its research and products.

We offer an excellent salary and benefits package, with opportunities for career development in one of the most attractive parts of Europe.

The ideal candidate will have postdoctoral research experience and a proven track record in protein chemistry research. Experience with microbial systems would be an advantage.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three references to: Rita Gloor, Personnel Manager, GLAXO IMB S.A., 46, route des Acacias, 1211 Geneva 24, Switzerland.

### • POSITION AVAILABLE •

#### Chief, Clinical Pharmacology Research Branch Alcohol, Drug Abuse, and Mental Health Administration Public Health Service • Department of Health and Human Services

The Alcohol, Drug Abuse, and Mental Health Administration invites nominations and applications for the position of Chief, Clinical Pharmacology Research Branch.

This is a Senior Executive Service position in the career civil service, with an annual salary range of \$65,994 to \$73,400. Physicians may also be eligible for a Physician's Comparability Allowance of up to \$20,000 per year. The position is located at the Addiction Research Center (ARC) in Baltimore, Maryland.

The Chief, Clinical Pharmacology Research Branch, ARC, plans, develops, and oversees the Branch's programs which are carried out with volunteer subjects (utilizing a 15-bed inpatient ward in addition to outpatient facilities) and which test various drugs for dependence potential; develops new pharmacological treatment; analyzes the metabolic pathway of drugs; and devises drug addiction systems for screening drugs in body fluids. The Chief provides scientific leadership and technical guidance to a multidisciplinary staff of 15, and allocates a budget of approximately \$4.2 million. The Chief also plans and conducts independent research and conducts collaborative research with investigators of ARC, as well as with scientists of other organizations.

Minimum qualifications requirements include the following: a degree of Doctor of Medicine from an AMA approved medical school, or a Doctor of Osteopathy degree from an approved school. In addition, the applicant must possess a permanent and full license to practice medicine in a State, the District of Columbia, the Commonwealth of

Puerto Rico, or a territory of the United States. Professional background and/or education must indicate an extensive knowledge of research methodology. Applicants must demonstrate progressively responsible experience in scientific research administration, and proven professional competence in areas related to the intramural research function. The experience must show evidence of involvement in research programs concerned with drug abuse related disorders, and demonstrate broad understanding of the biological, clinical, and behavioral sciences as they relate to the drug abuse field. Candidates must also have experience in the management of programs; demonstrating competence to assume leadership in planning, directing, coordinating, and allocating resources, and other responsibilities associated with executive leadership of a major national program.

Further information about the position and qualifications may be obtained by contacting Ms. Leslie Everheart at (301) 443-5030. Applications (Application for Federal Employment, SF 171) accompanied by a current curriculum vitae and bibliography should be submitted to Ms. Everheart at the Division of Personnel Management, Alcohol, Drug Abuse, and Mental Health Administration, 5600 Fishers Lane, Room 15C26, Rockville, Maryland 20857. Complete application material (including the SF 171) must be postmarked by August 31, 1988.

Applications from women and minority group members are especially solicited.

The Alcohol, Drug Abuse, and Mental Health Administration is an Equal Opportunity Employer.

## POSITIONS OPEN

Princeton University **CONNECTIONIST**: The Human Information Processing Group (HIPG) at Princeton University offers a position for a member of the professional research staff to coordinate a broad range of research in human information processing and to conduct research in neural networks, connectionist, or PDP-style models. The applicant should have some interest or background in neuro-science and its relation to neural network models and be willing to collaborate or interact with neuroscience faculty. The application should also have a familiarity with main-stream cognitive science areas, human factors, and computational modeling more generally. Ph.D. required. Deadline 1 September 1988.

HIPG is an inter-disciplinary group within Princeton University consisting of psychologist, engineers, philosophers, linguists, and computer scientists. Its facilities include the Cognitive Science Laboratory, the Interactive Computer Graphics Laboratory, the Robotics Laboratory, the Engineering Anomalies Laboratory, and the Cognitive Motivation Laboratory. Princeton University is an Equal Opportunity Employer.

Address inquiries to:

Search Committee  
Human Information Processing Group  
Department of Psychology  
Green Hall  
Princeton University  
Princeton, NJ 08544

### DIRECTOR— UNIVERSITY OF VIRGINIA DIABETES CENTER

The Diabetes Center of the University of Virginia is seeking a new director. The Center is a multidisciplinary organization within the University which supports and promotes diabetes and diabetes-related basic and clinical research and training and outreach programs. Support is provided by a National Institutes of Health grant, the Commonwealth of Virginia and the School of Medicine. There are more than 60 investigators and clinicians involved in the activities of the Center and five core laboratories operated as research support facilities.

Candidates for the Directorship should have a strong record in diabetes or diabetes-related research and administrative experience. The position will include appointment in the appropriate basic science and/or clinical departments. Curriculum vitae and three letters of reference should be submitted to: Erik L. Hewlett, M.D., Associate Director of the Diabetes Center Box 419 School of Medicine, University of Virginia, Charlottesville, VA 22908.

**DIRECTOR OF GASTROENTEROLOGY AND HEPATOLOGY**—The Department of Medicine of the Jefferson Medical College is seeking a Director for the Division of Gastroenterology and Hepatology. Responsibility for research, teaching and clinical programs at Thomas Jefferson University. Please forward inquiries and curriculum vitae to: Willis C. Maddrey, M.D., Chairman, Department of Medicine, Jefferson Medical College of Thomas Jefferson University, 1025 Walnut Street, Philadelphia, PA 19107. Equal Opportunity/Affirmative Action Employer.

### DIRECTOR OF GROSS ANATOMY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

The University of Pittsburgh, School of Medicine is seeking a mature anatomist to coordinate the gross anatomy programs of the basic science and clinical departments. Duties will involve directing the first-year medical student course, coordinating the fourth-year surgical elective course, providing some instruction for resident programs, as required, overseeing and participating in surgical research and ensuring proper and efficient usage of cadavers. This is a newly created position in the tenure stream, designed to complement the strengths in investigative surgery at this institution. A primary appointment will be offered in the Department of Neurobiology, Anatomy and Cell Science, with a joint appointment in the Department of Surgery. Deadline for applications, 30 September 1988.

Please send curriculum vitae and names of three references to: Gross Anatomy Search, c/o Raymond D. Lund, Department of Neurobiology, Anatomy and Cell Science, University of Pittsburgh, School of Medicine, Pittsburgh, PA 15261. The University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**DIRECTOR, CENTER OF EXCELLENCE—FIELD BIOLOGY**, Ph.D., experimental ecology, 12 months. Develop an externally funded research program. Fifty percent administration, 50% research. Successful background in external funding required. Salary commensurate with experience. Send transcripts, curriculum vitae, and three letters of recommendation to: Dr. B. P. Stone, Chairman, Biology Department, Austin Peay State University, Clarksville, TN 37044. Closing date: 15 December 1988 or until filled. Appointment 1 August 1989. APSU is an Equal Opportunity/Affirmative Action Employer. Minorities, women, and members of other protected groups are encouraged to apply.

### DIRECTOR ENVIRONMENTAL RESEARCH LABORATORY GULF BREEZE, FLORIDA \$65,994 to \$71,910

U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of Director, Gulf Breeze Environmental Research Laboratory. The Director is responsible for an applied research program which develops the scientific understanding, methods, and information required by EPA in order to protect marine ecological resources. The laboratory research areas include: marine ecology, microbial ecology, environmental chemistry, biology, and bio-chemistry. The Laboratory Director is responsible for the design and implementation of a long-term core scientific program of the Laboratory. The emphasis of the program is on scientific quality and relevancy to long-term ecological risks. The Director also serves as a major scientific advisor to the Agency in the area of marine ecological sciences.

To meet the requirements of the position, applicants must have demonstrated experience in the conduct of research and must meet the technical and executive qualifications described in the vacancy announcement. Telephone or write for a copy of the vacancy announcement to: Edna Morse, U.S. EPA, Executive Resources and Special Programs Division, PM-224, 401 M Street, S.W., Washington, D.C. 20460. The telephone number is 202-382-3328.

Applications must be postmarked by 31 August 1988.

EPA is an Equal Opportunity Employer.

### ECOTOXICOLOGIST

Exxon Biomedical Sciences, Inc. has an immediate opening for a qualified individual specializing in ecotoxicology and environmental hazard assessment. The successful candidate will have a Ph.D. in ecotoxicology or in an environmentally related field with 0-2 years postdoctoral experience. Experience in or a knowledge of the application of both effects and fate data to real world concerns, as well as knowledge of regulatory requirements (TSCA/PMN) would be desired. Exxon Biomedical performs both consulting and laboratory toxicology for affiliates around the world. Its resources include state-of-the-art aquatic toxicology, environmental chemistry and mammalian toxicology laboratories. The candidate will perform as a study monitor and internal consulting toxicologist. Client interactions are an important aspect of our work, and thus, we are seeking an individual who has excellent communication skills. Please forward résumé to: Human Resources,

EXXON BIOMEDICAL SCIENCES, INC.  
CN 2350, Mettlers Road  
East Millstone, NJ 08875-2350  
Equal Opportunity Employer M/F/H/V

**ENTOMOLOGY**: The University of Idaho announces a tenure-track position of ASSISTANT/ASSOCIATE PROFESSOR of entomology located at the SW Idaho R&E Center in Parma. The appointee will be expected to develop a strong research program on the biology and management of insect vectors of plant viruses, with emphasis on those pests affecting potatoes and cereals, and participate in graduate student training. Candidates must have a Ph.D. in entomology, and research experience or training in plant virus-vector relationships. Applicants should submit curriculum vitae, academic transcripts, and three letters of recommendation to: Dr. C. M. Smith, Division of Entomology, University of Idaho, Moscow, ID 83843. Telephone: 208-885-7544. The deadline for receiving applications and supporting material is 1 October 1988, and may be extended until a qualified applicant is selected. The University of Idaho is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### UNIVERSITY OF COLORADO DIRECTOR MOLECULAR AND ENVIRONMENTAL TOXICOLOGY PROGRAM

The School of Pharmacy at the University of Colorado is seeking applicants for the directorship of its Molecular and Environmental Toxicology Program. The appointment is tenured or renewable at the associate or full professor level. Applicants should have a strong research focus and an established reputation for excellence in teaching and research. Research interests may include molecular mechanisms of toxicity, immunotoxicology, genotoxicology, or the application of molecular biological techniques to toxicological problems. Please send curriculum vitae, reprints, and a letter of interest, by 29 July 1988 to: Louis Diamond, Ph.D., Dean, School of Pharmacy, University of Colorado, Boulder, CO 80309-0297. The University of Colorado is an Affirmative Action/Equal Opportunity Employer.

### DIRECTOR OF RESEARCH INSTITUTE DEPARTMENT OF SURGERY THE ST. LOUIS UNIVERSITY

The St. Louis University School of Medicine seeks a director for The Surgical Research Institute.

Qualifications include an M.D. and/or Ph.D. degree and a record of administrative and research accomplishments.

The Director will have primary responsibility for the overall administration of research programs for the institute. It is expected that the Director will have an active research program which preferably will be in the area of, but not limited to, basic immunology, metabolism or shock. The directorship is associated with academic appointment to the St. Louis University School of Medicine. Interested individuals should submit their curriculum vitae to: Chairman, Search Committee, Department of Surgery, St. Louis University Hospital, 1325 South Grand Boulevard, St. Louis, MO 63104. Equal Employment Opportunity/Affirmative Action.

### HEAD, VIROLOGY DEPARTMENT AMERICAN TYPE CULTURE COLLECTION

Ph.D. virologist with 5 to 8 years of experience to manage the collections of animal, plant, and molecularly cloned viruses and to develop an applicable research program. Candidates must have demonstrated strong leadership, organization supervisory skills and successful extramural funding. Send curriculum vitae, salary requirements, and names of three references to: Ms. Holland, 12301 Parklawn Drive, Rockville, MD 20852. Equal Opportunity Employer.

Harvard University. The Department of Psychology is searching for JUNIOR APPOINTEES (initially for a 5-year term), beginning 1 July 1989 in the area of developmental psychology. Candidates should hold the doctoral degree by the appointment date to be eligible for consideration. A special interest in emotional processes or infant perception would be desirable. In addition, competence in psychological measurement and statistics would be an advantage. Applications should include reprints, a current curriculum vitae, and applicants should ask at least three individuals familiar with their work to write directly to: Brendan A. Maher, Chairman, Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138. Applications received after 15 October 1988 may not be considered. Applications from women and minority groups are especially welcome.

### HEBREW UNIVERSITY— HADASSAH MEDICAL SCHOOL, DEPARTMENT OF PHYSIOLOGY

Seeks a LECTURER/SENIOR LECTURER for a tenure-track position to conduct independent research in any field of system, cellular or molecular physiology and to participate in teaching. M.D. or Ph.D. Postdoctoral training essential.

Persons interested in the position should send curriculum vitae, bibliography, relevant reprints or preprints, and three letters of recommendation to: Chairman, Department of Physiology, Hebrew University—Hadassah Medical School, P.O. Box 1172, Jerusalem 91010, Israel by 1 October 1988.

Preference will be given to an excellent candidate in system physiology.

## POSITIONS OPEN

### GROWTH FACTOR SENIOR SCIENTIST

Cephalon, Inc., a neuroscience-biotechnology company, is seeking an energetic individual to direct our program on discovery of novel neurotrophic factors. Prior experience in growth factor purification and characterization is essential. Successful candidate will participate in hiring support staff. Salary and equity position commensurate with experience. Reply to: **Cephalon, Inc., 145 Brandywine Parkway, West Chester, PA 19380.**

### FACULTY POSITIONS IN CARDIOVASCULAR/RENAL PHARMACOLOGY

The Department of Pharmacology, University of Tennessee, Memphis, is seeking candidates for two tenure-track positions available immediately, in cardiovascular/renal pharmacology. Rank and salary will be commensurate with experience. Candidates should possess a Ph.D. degree in pharmacology or related discipline, or an M.D., and should have demonstrated excellence in research and commitment to teaching. Candidates should have appropriate experience in application of physiology, biochemistry, molecular biology, or immunology to cardiovascular/renal pharmacology. Candidates will be expected to participate in teaching of pharmacology to professional and graduate students. Applications from minority candidates and women are strongly encouraged. Please submit curriculum vitae, the names of three references, and a brief statement of future research plans to: **Murray Heimberg, Ph.D., M.D., Chairman, Department of Pharmacology, University of Tennessee, Memphis, The Health Science Center, Memphis, TN 38163.** Search will continue until positions have been filled. *The University of Tennessee is an Equal Opportunity/Affirmative Action Employer.*

### MICROBIAL ECOLOGIST

The Ecosystems Center of the Marine Biological Laboratory (MBL) is seeking applicants at the postdoctoral or masters level for a National Science Foundation funded project. Research involves dissolved organic matter, bacteria and stable isotopes in estuaries. Applicants should have a strong background in chemistry, laboratory research experience, and familiarity with field sampling techniques. Please submit curriculum vitae, statement of interests, and names of three references by 1 August 1988 to: **Dr. Bruce Peterson, Ecosystems Center, MBL, Woods Hole, MA 02543.** *Affirmative Action/Equal Opportunity Employer.*

The Department of Pediatrics at the University of Michigan is seeking a **PEDIATRIC GASTROENTEROLOGIST.** Duties include administrative responsibilities, patient care, teaching and research activities. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.* If interested please send curriculum vitae to: **A. Craig Hillemeier, M.D., Director, Pediatric Gastroenterology, C6105 OPB Box 0800, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0718.**

### PHARMACOLOGIST/CELL PHYSIOLOGIST PATCH-CLAMP ELECTROPHYSIOLOGIST

Natural Product Sciences (NPS) Inc. is a rapidly-growing company involved in basic and applied research on compounds of non-human biological origin. We are seeking two Ph.D.-level scientists with expertise in cell physiology/pharmacology or electrophysiology to join a group investigating the effects of such compounds. Applicants for the first position should have experience studying responses to drugs in neural or cardiovascular tissues; the second position requires experience in patch-clamp analysis of responses in neuronal or cardiovascular cells. Both positions offer the opportunity to work with a wide range of novel compounds in an exciting and comprehensive program involving pharmacology, chemistry, and molecular biology. The successful applicant will be given major responsibility for directing his or her own efforts and will be expected to contribute to evaluating and guiding the general research program. Qualified applicants will also be eligible for faculty appointments in the University of Utah Department of Physiology, which is adjacent to the company's facility. NPS offers competitive salaries and a full benefits package. Please send a résumé and the names of three references to: **Dr. Hunter Jackson, Natural Product Sciences Inc., 420 Chipeta Way, Salt Lake City, UT 84108.** *Natural Product Sciences Inc. is an Equal Opportunity Employer.*

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## RESEARCH INVESTIGATOR PROBE ASSAY DEVELOPMENT

*We are seeking an experienced Senior Scientist or group leader for a probe assay development project. The position requires a Ph.D., or equivalent degree, with 2 to 3 years of industrial experience in probe assay development with documentation of progressive increases in responsibility. The candidate must have strong scientific and supervisory skills. The successful applicant will supervise one of several groups working on a probe assay development project.*

## MANAGER PROBE ASSAY DEVELOPMENT

*We are seeking an experienced manager to head a probe assay development project. The position requires a Ph.D., or equivalent degree, with 5 or more years of broad industrial experience in probe assay development with documentation of progressive increases in responsibility. The candidate must have strong leadership and communication skills. It will be necessary for the successful applicant to put together a project team and to coordinate the team's efforts with collaborating outside organizations.*

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## **RESEARCH AND DEVELOPMENT OPPORTUNITIES**

The Dade Division of Fortune 75 Baxter Healthcare Corporation is a worldwide leader in the development and manufacture of clinical diagnostic products and instrumentation. Through research and development, our reputation for quality products continues, creating immediate opportunities for scientists in our Research & Development operation. Current opportunities include:

### ***Immunochemistry Research Scientist***

This position requires working knowledge of various immunochemical techniques utilized in the analysis of monoclonal and polyclonal antibodies. The candidate should possess a B.S. or M.S. in Biological Science and 3-5 years experience in a laboratory environment. Familiarity with immunoassay, electrophoretic and chromatographic techniques is desirable.

### ***Immunology Research Scientist***

This position involves research, development, and production of monoclonal antibodies. A B.S. or M.S. in Biological Science or related field is desired, along with experience in sterile technique. The incumbent should possess 3-5 years tissue culture experience and prior work with animals in a laboratory setting. Working knowledge of GMP's highly desirable. In addition, qualified individual will possess good technical skills in immunology and will be able to function as a member of a team.

### ***Research Scientist***

This position, in our STRATUS Reagent Development Department, involves performance of experiments and formulation of reagents to establish immunoassay feasibility, stability, precision and accuracy. Either a B.S. or M.S. in Chemistry, Immunology or related field is required; industrial immunoassay development a plus. Good communication skills and computer experience desirable.

The Dade Division is based on the beautiful east coast of south Florida where, in addition to paying no state or local income taxes, you will enjoy a year-round quality lifestyle which attracts new residents and visitors from around the world. As a member of the Baxter R&D team, you will not only enjoy an outstanding professional and scientific environment and exceptional career growth opportunity, you'll also receive a very competitive salary and benefits package.

For consideration for any of the above positions, please send your resume along with salary history in confidence to: **Professional Staffing, Baxter Healthcare Corporation, Dade Division, P.O. Box 140520, Coral Gables, FL 33114.** Equal Opportunity Employer.

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## **THE UNIVERSITY OF ALABAMA**

Position Announcement for

### **DIRECTOR, ENVIRONMENTAL INSTITUTE FOR WASTE MANAGEMENT STUDIES**

The University of Alabama invites applications and nominations for the position of Director of the Environmental Institute for Waste Management Studies (EIWMS). The position will carry an academic appointment either in the College of Engineering or the College of Arts and Sciences. The Director will report to the Academic Vice-President and the academic department chairman. To be successful, a candidate is expected to have a strong academic background with a record of research and publications in waste management. An earned doctorate in engineering or science is required. Candidates must have demonstrated dynamic leadership, be a good motivator, possess good administrative skills, and have an interest in government interaction. Interviews will begin on June 1, 1988. Applications will be considered until the position is filled.

The Environmental Institute for Waste Management Studies was established in October 1983 in recognition by The University of Alabama of the "need for an effective and credible vehicle to study and inform the public, the media, and government officials of the major technical issues involving safe management of hazardous and non-hazardous wastes" (Charter of EIWMS). Patterned after the National Academy of Sciences panels, the Institute members are academicians from across the United States. They include a geologist, hydrogeologist, toxicologist, environmental socioeconomist, statistician, geochemist, biologist, and civil, chemical, biochemical, and geochemical engineers. During the past four years they have completed 19 major studies resulting in the publication of internally and externally reviewed open file reports. Funding for the Institute is from industry, federal and state sources.

The University of Alabama is a dynamic, sun-belt university located in Tuscaloosa, situated in the rolling hills of West Alabama about fifty miles southwest of Birmingham. The metropolitan area has a population of about 130,000. Most winters are snowless, and the region abounds with lakes and streams.

Applicants should send a resume which includes three references to:

Dr. Irvin A. Jefcoat, Chairman  
EIWMS Search Committee  
P.O. Box 6373  
Tuscaloosa, AL 35487-6373

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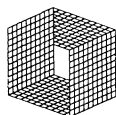
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## VISUALIZATION SCIENTIST

The John von Neumann National Supercomputer Center (JvNC) in Princeton, New Jersey is seeking candidates for the position of Visualization Scientist. The JvNC is operated by the Consortium for Scientific Computing, Inc., a non-profit corporation formed to provide state-of-the-art supercomputer resources to the national community of research scientists, engineers and mathematicians.

Responsibilities are: collaborates as a peer with senior researchers from academia and industry in every scientific and engineering discipline, using Visualization in Scientific Computing to refine choices of algorithm instrument supercomputer codes, and clarify tradeoffs among specialized capabilities (e.g., interactivity versus realism) between supercomputer and workstation. Publishes (co) authored papers in referred scientific journals and represents the Center at SIGGRAPH and other professional meetings. Initiates research projects proactively and writes grant proposals.

M.S. degree in the sciences and at least five years direct experience in graphics and image processing is required. Must have demonstrated close collaboration on sophisticated computational problems with senior scientist in more than one field. Excellent written and oral communication skills are required. Fluency in FORTRAN and C is required and experience with scientific codes of at least 10,000 FORTRAN lines is preferred. A Ph.D. and experience with advanced human interface design issues, particularly on interactive high-performance workstations and supercomputers, is desired.

This grant funded position offers an excellent benefits package and a salary commensurate with experience. To apply, send resume, salary history and salary requirements indicating reference #408 to:

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## MICROBIOLOGIST- IN-CHIEF

The Hospital for Sick Children, one of the largest paediatric hospitals in North America, invites applications for the position of Microbiologist-in-Chief. Located in downtown Toronto, the Hospital is in close proximity to, and affiliated with the University of Toronto.

The Department of Microbiology is a new department formed by the amalgamation of Bacteriology and Virology, each of which is highly productive in service, research and teaching activities, and provides a clinical consultative service.

The position is responsible for the administration of a hospital laboratory department with a combined professional complement of 2 virologists, 3 medical microbiologists and several research scientists.

There is an Infectious Disease Division of the Department of Paediatrics that collaborates with the Department of Microbiology.

Candidates should be medically qualified and possess specialist qualifications in medical microbiology from the Royal College of Physicians and Surgeons of Canada or an equivalent body. The incumbent should be experienced in directing a microbiology service laboratory. It is expected that the applicant will be active in research and teaching.

Through the affiliation with the University of Toronto, the incumbent will be required to participate in teaching at undergraduate and postgraduate levels, including resident training in medical microbiology and other allied disciplines. Cross-appointments with the University of Toronto, Department of Microbiology are customary at an appropriate rank, subject to the approval of the Professor and Chairman of Medical Microbiology.

In accordance with immigration regulations, priority will be given to Canadian citizens and permanent residents of Canada. An application including curriculum vitae and appropriate references should be forwarded by **August 1, 1988**, to: **Chairman, Search Committee, Microbiologist-in-Chief, c/o Mr. Bruce Laughton.**



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**THE HOSPITAL  
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## POSITIONS OPEN

### PARASITOLOGIST ASSISTANT PROFESSOR

A 3-year, nontenure-track/research faculty position available fall 1988, for a helminthologist, with at least 2 years of postdoctoral experience involving parasite biochemistry or genetics. Opportunities exist for collaborative research in molecular biology with the interdisciplinary Microbiology Department at The University of Tennessee, Memphis and associated institutions. Send curriculum vitae, brief description of research interests, and names of three references by 29 July 1988, to:

**Dr. Raymond H. Cyress**  
Department of Microbiology & Immunology  
The University of Tennessee Health Science Center  
847 Monroe Avenue, Room 217  
Memphis, TN 38163

*The University of Tennessee, Memphis is an Equal Employment Opportunity/Affirmative Action Employer.*

The Department of Pediatrics at the University of Michigan is seeking a Board-eligible/certified **PEDIATRICIAN**. Duties include patient care, teaching and research activities in the fields of general pediatrics or ambulatory care. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.* If interested please send curriculum vitae to: **Robert C. Kelsch, M.D., Director, Pediatric Ambulatory Care, Department of Pediatrics, 1924 Taubman Center, UMMC, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0318.**

**PHYSICAL METALLURGIST:** 40 hours per week. 8:00 a.m. to 4:30 p.m., \$44,990.40 per year. Responsible for the development of novel diagnostic methods and finite element analysis for the study of mechanical testing of small volume solid samples. Responsible for mechanical testing, particularly the impression test methodologies as applied to weldments and superplastic alloys. Responsible for development of improved techniques for the manufacturing of ferromagnetic amorphous alloys. Must possess a thorough understanding of mechanical testing methods, with demonstrated practical experience in the study of weldment and superplastic alloy. Knowledge of computer software required. Ph.D. in materials science and 3 years of experience in physical metallurgy research required. Send résumé to: **Department of Employment Services, 500 C Street, Room 325, N.W., Washington, D.C. 20001. Telephone: 202-724-3770, Monday to Friday, 9:30 a.m. to 3:30 p.m. Indicate in résumé Job Order # 5975.**

### POSTDOCTORAL ASSOCIATE

A postdoctoral position is available to study either the regulation of maternal mRNA expression in early *Xenopus* development [cf. *Development* 101, 741 (1987)] or the mechanism of adenovirus E1A-induced transcription using injected *Xenopus* oocytes [cf. *Mol. Cell. Biol.* 7, 3049 (1987)]. Send curriculum vitae and three references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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University of Michigan: Unexpected immediate opportunity for **POSTDOCTORAL FELLOW** with synthetic or organometallic chemistry background to refine radiometal labeling of monoclonal antibodies. Well-equipped laboratory with multidisciplinary environment. Ideal position for the chemist desiring to apply chemical solutions to biological systems. Position is NIH-funded and applicants must be U.S. citizen or permanent resident. Please send curriculum vitae with name of two references to: **Richard L. Wahl, M.D., Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028.** *The University of Michigan is a non-discriminatory, Affirmative Action Employer.*

### POSTDOCTORAL POSITION

Postdoctoral position is available immediately to study gene expression in preimplantation mouse embryos. We are using *in situ* hybridization of gene-specific probes to examine the relationship between gene expression and cell lineage in the early embryo. Background in molecular biology or embryology would be useful. Send curriculum vitae to: **Dr. William Crain, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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## Director BOARD ON BIOLOGY

The COMMISSION ON LIFE SCIENCES of the National Research Council seeks a Director to administer its Board on Biology – an ongoing program of studies in biology. The position requires broad experience and expertise in areas ranging from ecology to genetics and neuroscience. Applicant should have at least 6 years of experience in the academic or government environment, preferably a combination of both, and a record of holding increasingly responsible positions involving the examination of issues requiring knowledge of biology and science policy issues, e.g., science education, research resources, and research trends. A doctorate or equivalent in one of the life sciences is required, along with demonstrated skills in communication, administration, and interpersonal relations.

The NRC offers a salary commensurate with experience and an exceptional benefits package including paid relocation to the D.C. area. Please send curriculum vitae and letter of interest in confidence to:

**COMMISSION ON LIFE SCIENCES**  
**J. Burris/NAS 343**  
2101 Constitution Ave., N.W.  
Washington, D.C. 20418  
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## Associate Director SOVIET AND EAST EUROPEAN AFFAIRS

The NATIONAL RESEARCH COUNCIL is seeking an Associate Director for its Soviet and East European Affairs Office. The incumbent will share with the Director responsibility for managing a program of exchanges of scientists, bilateral scientific workshops, cooperative research programs, and science policy studies. Other responsibilities include supervision of special cases, scientific leadership for structuring workshops, and providing advice on programs concerning U.S. scientific relations with the USSR and Eastern Europe. Requirements include a minimum of five years' experience in administering scientific programs with significant international components; MS or Ph.D. in science or engineering; knowledge of scientific and economic developments in the USSR and Eastern Europe, international science policy issues, and East-West economic and technological security issues. Proficiency in Russian language desirable, but not required. Excellent written and oral communication skills necessary. Salary range: \$50-60,000. The Academy offers an excellent benefits package including paid relocation to the D.C. area. Please send résumé in confidence to: **NATIONAL RESEARCH COUNCIL, SEEA/AD/HA 166, 2101 Constitution Ave., N.W., Washington, D.C. 20418. EOE.**



## Scientist Immunopharmacology

Genentech, Inc., a leader in the field of biotechnology, is currently seeking an Associate Scientist to work with our Immunopharmacology Group pursuing research and development of experimental animal models and *in vitro* assays for evaluating the immunogenicity of recombinant proteins.

Requirements include 2+ years of postdoctoral training in immunology and a demonstrated, strong background and interest in investigating immunobiological effects of antigenic structure and antigen processing, B and T cell epitope mapping, T cell cloning and cellular immune responsiveness to peptide and protein antigens, and/or immunogenetic. Experience with *in vitro* and *in vivo* immunological assays in

murine models is also essential. Some knowledge of human immune assays would be helpful.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, please send your resume to Eric Mankuta, Human Resources Department 557, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.

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## DEVELOPMENTAL NEUROBIOLOGIST

The Hospital for Sick Children Research Institute, one of the largest and most active of its kind in the world, is seeking an outstanding scientist with a Ph.D. or M.D. to carry out basic research in developmental neurobiology as related to cardio-respiratory control. The appointee will have the opportunity to interact with an established group studying the sudden infant death syndrome while developing his/her own research program. The position is well funded, and includes both on-going support and a salary, which is negotiable. The appointment will be at a rank commensurate with experience and background, and will include appointment to the senior staff of The Research Institute.

Send curriculum vitae, a brief description of research interests, and the name of three references before August 15, 1988, to: **Dr. Barry T. Smith, The Research Institute.**



555 University Avenue  
Toronto, Ontario M5G 1X8

## THE HOSPITAL FOR SICK CHILDREN

### PUBLIC HEALTH SERVICE, NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES RESEARCH TRIANGLE PARK, NORTH CAROLINA DIRECTOR, DIVISION OF INTRAMURAL RESEARCH A SENIOR EXECUTIVE SERVICE VACANCY

The National Institute of Environmental Health Sciences (NIEHS) invites nominations and applications for the position of Director, Division of Intramural Research. This is a Civil Service position in the Senior Executive Service (SES) with a salary range of \$65,994 to \$73,400 per annum. In addition, M.D. candidates may be eligible for a Physician's Comparability Allowance up to \$20,000 per year. (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.) A one-year probationary period must be served if the individual selected is not currently in the SES.

The Division of Intramural Research plans and conducts the Institute's basic laboratory research programs which encompass the areas of cellular and molecular pharmacology, genetics, molecular biophysics, molecular carcinogenesis, molecular genetics, molecular and integrative neurosciences, pulmonary pathobiology, reproductive and developmental toxicology and an animal facility.

As Director for the Division of Intramural Research, the incumbent manages and directs a staff of approximately 397 employees and manages a budget of approximately \$17.5 million. DIR is composed of eight laboratories and a branch conducting bench research in-house and by contract. The incumbent evaluates research efforts and establishes Programs' priorities; allocates funds, space, and personnel ceilings and integrates ongoing and new research activities into Programs' structure; collaborates with other organizations, and NIH programs; and provides advice to the Institute Director and staff on matters of scientific interest. As a national expert in the field of environmental health, the incumbent serves as expert consultant within the United States and abroad.

Candidates must meet the following professional and managerial qualifications:

#### Mandatory Qualification Requirements

This is a multidisciplinary position. All candidates must: (1) meet the minimum educational requirements for either: (a) Biologist, GS-401, (b) Chemist, GS-1320, (c) Medical Officer, GS-602, (d) Pharmacologist, GS-405, (e) Microbiologist, GS-402, (f) Physiologist, GS-413, or (g) Geneticist, GS-440, as described in the U.S. Office of Personnel Management Handbook X-118 (Qualification Standards for Positions under the General Schedule) which is available in Federal Job Information Centers and Federal Personnel Offices; and (2) Biomedical research experience at the GS/GM-15 grade level or equivalent which reflects demonstrated abilities to develop, implement and administer intramural research programs using the multidisciplinary research approaches to environmental health; considerable experience involving research, analysis and evaluation of data related to the study of biological and hazardous effects of chemical, physical and biological substances found in the environment.

#### Mandatory Managerial/Executive Qualifications

The incumbent must have had extensive experience of sufficient scope to carry out the managerial duties of the position. Experience must have included progressively responsible experience in directing, guiding and managing complex research projects and/or programs. Must have demonstrated possession of: (1) a broad knowledge of and demonstrated ability to apply management practices and principles related to planning, organizing, staffing, directing, allocation of resources and coordinating complex research programs; (2) ability to develop policy and establish short-term and long-term goals,

priorities and objectives for complex programs; (3) ability to deal with diverse and complex problems through application of analytical and decision-making skills; (4) ability to select, develop and utilize a subordinate staff, including a demonstrated positive attitude regarding the implementation of an equal opportunity program; (5) ability to represent the organization and deal effectively with high level governmental officials, the scientific and academic communities, national/international professional organizations and societies and the general public; and (6) skill and ability to conduct analysis and evaluation of programs.

Candidates who meet the mandatory qualifications will be further evaluated on the following factors: training and education; research experience and leadership of a research program in or related to environmental health; scientific reputation/peer recognition; honors and awards; and additional managerial/executive qualifications in excess of the mandatory level.

Further information about the position and qualification requirements may be obtained by calling Bruce Wiggins, Supervisory Personnel Management Specialist at 919-541-3317. U.S. Citizenship is required.

Resumes are not acceptable applications for entrance into the Senior Executive Service. Applications, SF-171 (available at all Federal Job Information Centers and Federal Personnel Offices) accompanied by a current curriculum vitae and bibliography should be submitted not later than August 19, 1988 to:

Bruce Wiggins (Code: HNV2)  
NIEHS Personnel Office  
P.O. Box 12233  
Research Triangle Park, NC 27709

**NIH IS AN EQUAL OPPORTUNITY EMPLOYER**

## POSITIONS OPEN

### PLANT VIROLOGIST

Kansas State University, Department of Plant Pathology, invites applications for a tenure-track position at the assistant professor level to begin 1 October 1988. Successful candidate will be expected to investigate the molecular basis of viral biology and disease and participate in the development of control measures for important viral diseases of cereal crops. A Ph.D. in plant pathology and a strong record of training and research experience in plant virology is required. Salary commensurate with academic training and experience. Submit letter of application, résumé, transcripts, and three letters of reference to: **Dr. Frank F. White, Department of Plant Pathology, Throckmorton Hall, Kansas State University, Manhattan, KS 66506** by 1 September 1988. *Kansas State University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE.** Work in the area of intestinal development, adaptation and gene-nutrient interaction, including isolation of cDNA and genomic sequences encoding the amidophosphoribosyl transferase gene. Experience with cDNA cloning and sequencing as well as general knowledge of molecular biology desired. Send curriculum vitae to: **Neal S. LeLeiko, M.D., Ph.D., Department of Pediatrics, The Mount Sinai School of Medicine, Box 1198, One Gustave L. Levy Place, New York, NY 10029-6574.** *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately in the Pacific Northwest to study regulation and expression of tyrosine protein kinases and phosphotyrosyl phosphatases. The applicant will investigate the regulation of the kinase activities of receptors by phosphorylation and dephosphorylation using a variety of different molecular techniques. The individual should possess strong research skills with a background in protein chemistry, enzymology, or molecular biology and have obtained a Ph.D. within the last 4 years. Send curriculum vitae and names of three references to: **Dr. G. M. Clinton, Department of Biochemistry, Oregon Health Sciences University, Portland, OR 97201.** *OHSU is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in molecular developmental genetics available fall/winter, 1988 in the Biology Division of the Oak Ridge National Laboratory. Project involves the molecular and functional characterization of regions of the mouse genome associated with radiation-induced deletion mutations. Background in genetics, molecular biology, and/or developmental biology desirable. Applicants should arrange for curriculum vitae, a brief statement of research interests, and three letters of reference to be sent to: **Dr. Eugene M. Rinchik, University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, P.O. Box 2009, Oak Ridge, TN 37831-8077.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately for a Ph.D. in biophysics/biochemistry or physical chemistry to participate in studies using NMR methods to elucidate biomacromolecules solution structure and function. Specific systems include metalloproteins and drug-protein interactions. Applicants must have proven experience in NMR with experience in computer programming and protein manipulation techniques preferred but not essential. Send curriculum vitae and the names of three references to:

**Dr. Ian M. Armitage**  
Yale University  
Department of Molecular Biophysics  
and Biochemistry  
333 Cedar Street, P.O. Box 3333  
New Haven, CT 06510

**POSTDOCTORAL POSITIONS**—Research hematology: The Hematology Division of the Johns Hopkins University School of Medicine has positions available now for individuals with an M.D. or Ph.D. degree and an interest in hematology research (normal and neoplastic cell proliferation, coagulation, immunohematology, membrane proteins, genetic control of globin synthesis, oxygen transport, red cell enzymes). *U.S. citizenship required.* Send curriculum vitae and three references to: **J. L. Spivak, M.D., Hematology Division, The Johns Hopkins Hospital, Baltimore, MD 21205.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available on 1 July 1988 for beginning postdoctoral candidate. Position will be in laboratory studying epithelial cell polarity and membrane protein sorting—research will involve analysis of targeting in epithelial cells transfected with genes encoding ion pump proteins—experience in molecular biology is desirable. Position is funded by a departmental NIH training-grant. *Applicants must be U.S. citizens.* Send curriculum vitae with names of references to:

**Dr. Michael Caplan**  
Department of Cellular and Molecular Physiology  
Yale University School of Medicine  
P.O. Box 3333  
New Haven, CT 06510

**POSTDOCTORAL POSITION** in molecular biology of drug metabolizing enzymes at the National Institute of Child Health and Human Development, National Institutes of Health, Public Health Service, to study the genetics, regulation, and expression of glucuronidating enzymes using biochemical and recombinant DNA techniques. Experience desired, but not required. Salary depends on experience and qualifications. Please respond by 26 August 1988. For further information contact: **Dr. Ida S. Owens, Section on Drug Biotransformation, Building 10, Room 8C313, National Institutes of Health, 9000 Rockville Pike, Bethesda, MD 20892.** *NIH is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately to study DNA damage and repair in higher cells. Experience in <sup>32</sup>P-postlabeling, TLC, HPLC and mass spectrometry desirable. Competitive salary, plus fringes, based on experience. Please send curriculum vitae and names of three references to: **James W. Gaubatz, Ph.D., Department of Biochemistry, College of Medicine, University of South Alabama, Mobile, AL 36688.** *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available to study muscle fiber types—development and neuronal regulation of myosin expression; methods include immunocytochemistry and electron microscopy. Background in muscle biology desirable. Send curriculum vitae and names of three references to: **Dr. G. F. Gauthier, Department of Cell Biology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655.** *UMMC is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION IN HORMONE RECEPTOR MOLECULAR BIOLOGY AND BIOCHEMISTRY.** Parathyroid hormone isolation, characterization, sequencing, and molecular biology. Immediate opening for beginning postdoctoral candidates. Excellent salary and fringe benefits. Stimulating intellectual environment in a basic science department. Call or apply directly to: **J. E. Zull, Department of Biology, Case Western Reserve University, Cleveland, OH 44106.** **Telephone: 216-368-3572.** *CWRU is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION IN IMMUNOGENETICS/AUTOIMMUNE DISEASE.** Strong molecular genetics background required, salary negotiable. Position includes appointment as research fellow at the University of Wisconsin.

Principal projected studies in the laboratory include further characterization of the HLA and T-cell receptor genes that affect susceptibility to insulin-dependent diabetes. We are currently investigating these genes and their products at the cell-surface and DNA levels, and will extend the investigation to the whole-body level in a transgenic mouse study with the assistance of the University of Wisconsin Biotechnology Center.

Please send curriculum vitae, one page or less describing your research experience, and three reference letters to: **Michael Sheehy, Ph.D., Science Director, American Red Cross Blood Center, 4860 Sheboygan Avenue, Madison, WI 53705.**

**POSTDOCTORAL POSITIONS** in microbial ecology/biochemistry available September 1988 in the areas of bacterial decomposition, organic matter transformations, and fate of novel genetic sequences in marine and freshwater ecosystems. Please send curriculum vitae and names of three references to: **Dr. Robert E. Hodson, Department of Microbiology, University of Georgia, Athens, GA 30602.** *An Equal Employment Opportunity/Affirmative Action Institution.*

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE**  
**DAVID TAYLOR RESEARCH CENTER**  
Annapolis, Maryland 21402-5067

Fall 1988. To study marine microbial attachment mechanisms. Experience in microbiology, spectral methods, surface characterization desirable. Contact: **Dr. Loeb at 301-267-2460.** *An Equal Opportunity Employer, U.S. citizenship required.*

**POSTDOCTORAL RESEARCH SCIENTIST**  
**MOLECULAR AND DEVELOPMENTAL**  
**NEUROBIOLOGY**

Postdoctoral scientist position available as of the fall of 1988 to study gene regulation during the development of neurons. Ongoing efforts include the identification of genes related to neuronal differentiation and plasticity, the study of their transcriptional control, and the analysis of their function by perturbation in vitro and in transgenic mice.

Interested persons should send curriculum vitae to:

**Dr. Mark C. Fishman**  
Howard Hughes Medical Institute  
Wellman 4  
Massachusetts General Hospital  
Boston, MA 02114

### RADIOBIOLOGIST

The Department of Radiation Oncology at the University of North Carolina is recruiting at the assistant professor level for a radiobiologist. The candidate will have completed a Ph.D. in radiobiology and have experience in the study of cellular systems, tumor biology, and tumor response to radiation and radiation modifying agents. *Women and minorities are encouraged to identify themselves voluntarily. UNC is an Equal Opportunity/Affirmative Action Employer.* Send a current curriculum vitae by 31 August 1988 to: **Joel Tepper, M.D., Department of Radiation Oncology, North Carolina Memorial Hospital, Chapel Hill, NC 27514.**

**RESEARCH ASSISTANT PROFESSOR**, medical biochemistry. Twelve-month, renewable. Research on lipid peroxidation in human degenerative disease using GC-MS. Teach biochemistry and biochemical basis of human disease states to medical students. Ph.D. in biochemistry or related area, research experience in GC-MS, and strong publication record required. Experience with human biopsy methods and an M.D. desirable. Salary \$30,000 to \$40,000, dependent on qualifications. Desired start date 1 September 1988. Screening begins 1 August 1988. Send letter of application, curriculum vitae, and three letters of recommendation to: **Edward A. Dratz, Professor of Chemistry, Montana State University, Bozeman, MT 59717.** *MSU is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSISTANT PROFESSOR** with 5 years of postdoctoral training to study flavonoids in cell activation and chemoprevention. Ph.D. biochemistry/enzymology training in polyphenol metabolism. Experience in cell and organelle isolation, membrane enzymes and purification/characterization, lipid peroxidation, HPLC, enzyme induction/xenobiotic metabolism, carcinogen-DNA binding, carcinogen metabolite characterization, radioisotope handling and write grant proposals. Candidate expected to develop independent research program on flavonoids. Salary: to \$27,500. Send résumé and three reference letters to: **Director, Allergy Division, SUNY/Bufalo, Buffalo General Hospital, 100 High Street, Buffalo, NY 14203.** *Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATE**  
**CORNELL UNIVERSITY**  
**MEDICAL COLLEGE**

The Laboratory of Psychopharmacology, Cornell University Medical College seeks applicants to work on a program studying monoamine receptor regulation and related areas in human brain and peripheral tissues. Applicants must have a Ph.D. and postdoctoral experience in biochemistry/molecular biology/pharmacology. Experience with receptor binding, autoradiography and HPLC would be an advantage. A supervisory role is available for a suitable experienced applicant. Send curriculum vitae and names of three references to: **Dr. John Mann, Department of Psychiatry, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** *Equal Employment Opportunity/Affirmative Action/M/F/H/V.*

## POSITIONS OPEN

### PROFESSOR AND HEAD PENN STATE DEPARTMENT OF ENTOMOLOGY

Applications and nominations are invited for this position which is the departmental administrative officer and program leader, and reports directly to the Dean of the College of Agriculture. Qualifications include a Ph.D. in entomology or closely related field, and a significant period of professional or academic experience with a strong record of scholarly activities. The applicant should have an understanding of the land-grant university system. Letter of application should include complete résumé with documentation of academic training and professional leadership. Names, addresses, and telephone numbers of five individuals who can be contacted for recommendations should be included. Applications will be accepted through 15 August 1988, or until a suitable candidate is identified. Nominations and letters of application should be forwarded to: **Dr. Arthur A. Hower, Chairman of Search Committee, Department of Entomology, 106B Patterson Building, Penn State University, University Park, PA 16802.** *Penn State is an Affirmative Action/Equal Opportunity Employer. Women and Minorities are encouraged to apply.*

### THE MAX-PLANCK-GESELLSCHAFT OPENS AT THE MAX-PLANCK-INSTITUT FÜR IMMUNBIOLOGIE, FREIBURG THE "HANS-SPEMANN-LABORATORIES"

In the new building several independent research groups are to complement and extend the permanent research areas of the institute which include: Cellular immunology, molecular immunology, biology of infectious and parasitic diseases, bacteriology and embryology.

We are looking for internationally recognized young scientists as

#### RESEARCH GROUP LEADERS

working in the above mentioned fields or in tumor biology, cell biology, protein chemistry, gene regulation and differentiation in vertebrates.

The duration of the contract starting at the earliest in June 1989 will be 5 years with a salary in accordance with qualification up to approximately DM 73,000, per annum (C3 of the German University scale, equivalent to associate professor). There is no teaching commitment.

The groups will have modern laboratory facilities with up to 120 m<sup>2</sup> of laboratory space, operating expenses and funding for scientific and technical co-workers.

Applications, including a tabular curriculum vitae, list of publications, and a description of major scientific achievements and future research plans, should be submitted by 31 August 1988 to:

**Dr. Georges Köhler**  
Geschäftsführender Direktor  
des Max-Planck-Instituts für Immunbiologie  
Postfach 1169  
D-7800 Freiburg i.Br.

### DEPARTMENT OF NEUROBIOLOGY, ANATOMY AND CELL SCIENCE UNIVERSITY OF PITTSBURGH, SCHOOL OF MEDICINE

We are seeking to fill **THREE TENURE-TRACK POSITIONS** with individuals having research interests that are compatible with current areas of strength in the department. These include neural development, nerve-muscle interactions, neural transplantation, cortical organization, endocytotic mechanisms and cell/cell interactions. Techniques used include molecular biology, antibody probes and cell biological approaches as well as more traditional neurophysiological and neuroanatomical methods. Candidates must have strong competitive research programs, and be prepared to teach in medical histology/cell biology or gross anatomy courses as well as participate in interdisciplinary graduate programs. Deadline for application is 30 September 1988.

Please send curriculum vitae, a summary of current research and future research plans and the names of three references to: **Raymond D. Lund, Chairman of Search Committee, Department of Neurobiology, Anatomy and Cell Science, University of Pittsburgh, School of Medicine, Pittsburgh, PA 15261.** *The University is an Equal Opportunity/Affirmative Action Employer.*

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## pportunities in Molecular Biology, Cell Biology and Protein Biochemistry

Molecular Diagnostics, Inc. (MDI), Molecular Therapeutics, Inc. (MTI), the Institute for Arthritis and Autoimmunity (IAA), and Miles Institute for Preclinical Pharmacology (MIPP) are advanced research institutes which collectively comprise the newly-formed Miles Research Center in West Haven, CT. The Center functions as a major research resource of Bayer AG of West Germany and its subsidiary, Miles Inc. It is located in a newly-constructed facility which is the first of several such facilities to be built at the West Haven site.

MDI and MTI are engaged in biotechnology research; the newly-formed IAA is dedicated to the discovery of new targets for drug therapy. Areas of interest include molecular and cellular genetics, nucleic acid chemistry, cell biology, immunology and protein chemistry. The individual institutes function collaboratively with each other, and with other research entities of the Bayer group.

The Center is engaged in a major expansion of its staff and offers outstanding opportunities to candidates with appropriate credentials, as described below.

## RESEARCH ASSOCIATES

Applicants must have BS or MS degree, 1 year or more experience, and proficiency in any of the following areas: RNA isolation and recombinant DNA techniques; nucleic acid hybridization; protein biochemistry; tissue culture or hybridoma technology.

The companies are located in a new research facility near New Haven and Yale University, and midway between Boston and New York City. They offer competitive salaries, excellent benefits, and a stimulating and challenging work environment.

Applicants should forward a curriculum vitae along with a statement of research interest and capabilities in confidence to: Research Director, Molecular Diagnostics, Inc., 400 Morgan Lane, West Haven, CT 06516.



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Research  
Center



## POSITIONS OPEN

**RESEARCH ASSOCIATE:** Postdoctoral position to study the role of atmospheric nitrogen deposition in nitrogen concentrations and acidification of drainage waters. Strong background in biogeochemistry, data analysis, computer modeling and statistics required, as well as demonstrated ability to conduct independent research. Submit curriculum vitae and three letters of reference to: **Dr. Charles T. Driscoll, Department of Civil Engineering, 220 Hinds Hall, Syracuse University, Syracuse, NY 13244** by 15 August 1988. *Syracuse University is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH ASSOCIATE INHALATION TOXICOLOGY

CIIT, an innovative leader in toxicology research, seeks to fill the position of research associate in its Research Triangle Park, North Carolina facility. Selected individual must have previous inhalation toxicology experience and will be responsible for generation and analysis of gas, vapor, and aerosol test atmospheres using gas chromatography, IR-UV-VIS spectrophotometry, and wet chemical assays in conjunction with airborne sampling techniques. Experience in statistics and computer-based data management systems would be beneficial. Requires good mechanical ability and M.S. or B.S. in chemistry or biology with 3 to 8 years of relevant experience. Reply in confidence to: **Employment Office, Chemical Industry Institute of Toxicology, P.O. Box 12137, Research Triangle Park, NC 27709.** *An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH SCIENTIST** for pharmaceutical manufacturer in Central Ohio. Design and conduct research and development in the area of transdermal drug delivery systems including skin permeation studies using chromatography and radioisotopes and prototype development. Evaluate physicochemical properties of drugs & ion exchange resins for preformulation and formulation of controlled release dosage forms, specially transdermal delivery systems. Prepare technical progress reports on findings. No experience necessary. Requires a Ph.D. in pharmaceuticals with specialization in controlled release transdermal drug delivery systems. Must have one course each in: Drug diffusion; statistical analysis systems (SAS); animal research methods; advanced physical pharmacy; chromatography. Must be certified to handle radioisotopes in Ohio. Forty hours per week, 8 a.m. to 4:30 p.m., \$38,004 per year. Qualified applicants reply immediately with résumé to: **A. Mac Lean JO# 3045491, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

### SCIENTIFIC PROGRAMMER/ANALYST

General Services Corporation (GSC), ranked as one of the nation's TOP 100 Small Companies, seeks scientific programmers and analysts for our current involvement in software development for USEPA. Projects include: data base management; data integration; user interface systems development; and mapping and graphics related to environmental data.

Preferred skills include willingness to solve complex problems, knowledge of DBMS systems, PL/I, and ISPF in an IBM 3090 MVS/XA environment. Company offers competitive salaries, advancement opportunities, challenging work, and a complete benefits package. Please forward your résumé in confidence to **Pamela McLean:**

GSC  
6100 Chevy Chase Drive  
Laurel, MD 20707

### SOIL BIOGEOCHEMIST

Design and develop an ecologically-oriented soil science research program emphasizing geosphere-biosphere-atmosphere interactions for the Biological Sciences Center of the Desert Research Institute. Grant support and start-up funds are available.

Requirements include a Ph.D. in soil science, extensive training in the plant sciences, professional experience beyond the Ph.D., a strong publication record, and the proven ability to attract research funding. A research background emphasizing soil-plant-atmosphere interactions and/or remote sensing is highly desirable.

Salary commensurate with qualifications, excellent benefits. Applications must be received by 19 August 1988. Send curriculum vitae, statement of research interests, and names of three references to: **Personnel Office, Desert Research Institute, P.O. Box 60220, Reno, NV 89506.** For additional information contact: **Dr. Carl Fox at 702-673-7322.**

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## POSITIONS OPEN

**SENIOR STAFF SCIENTIST,** National Biomedical ESR Center. A position is available for an individual with a Ph.D. in biophysics with experience in pulse electron spin resonance spectroscopy. Our funded NIH grant emphasizes saturation recovery experiments on synthetic and biological membranes. Salary: \$25,000. Résumés to: **Dr. James S. Hyde, Director, National Biomedical ESR Center, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226.** *Equal Opportunity, Affirmative Action Employer M/F/H.*

**TOXICOLOGIST/ELECTRON MICROSCOPIST RESEARCH SCIENTIST.** The Virginia Institute of Marine Science (VIMS), School of Marine Science, College of William and Mary, is seeking a Ph.D.-level scientist with a background in toxicology and electron microscopy. The applicant will conduct research on the effects of toxic chemicals on marine organisms at the EM level and will direct the efforts of the EM facility. *Women and minority scientists are encouraged to apply.* Send three references and curriculum vitae by 29 July 1988 to: **Professor E. M. Burreson, Search Committee, VIMS, Gloucester Point, VA 23062.** *Equal Opportunity/Affirmative Action Employer.*

### VIROLOGIST

Hands-on bench position working with HIV and other viruses. Research involves quantitating the destruction of infectious virus by chemical disinfection. Good Industrial opportunity. Salary is \$30,000 to \$40,000 (commensurate with experience). Send a detailed résumé with a letter of application to: **Microgen, Inc., 122 Fairfield Road, Fairfield, NJ 07006.**

## AWARDS

The Rosenstiel School of Marine and Atmospheric Science of the University of Miami seeks nominations for the **ROSENSTIEL AWARD.**

The Rosenstiel Award is presented annually to recognize outstanding achievement and distinction in oceanographic science. This year's award will be presented for excellence in the field of marine geology and geophysics. Nominations including a curriculum vitae and the names of three referees should be sent to: **Dr. Garrett W. Brass, Chairman, Rosenstiel Award Committee, Division of Marine Geology and Geophysics, 4600 Rickenbacker Causeway, Miami, FL 33149.**

## CALL FOR PAPERS

**WASTE MINIMIZATION AND CLEAN TECHNOLOGY: MOVING TOWARD THE 21ST CENTURY.** Abstracts are sought for this international conference to be held 29 May to 2 June 1989 in Geneva, Switzerland. Topics include: International Appraisals of Waste Minimization Efforts; R&D Needs; Management Directions and Challenges; Training and Education; Industry-Specific Systems Approaches; and Employee Incentives. Major sponsors: U.S. EPA, International Solid Wastes and Public Cleansing Association. Send abstracts by 31 July 1988 to: **Dr. Arthur H. Purcell, Resource Policy Institute, PO Box 39185, Washington, DC 20016.**

## FELLOWSHIPS

University of Michigan: **POSTDOCTORAL FELLOWSHIP** available for recent Ph.D. or M.D., Ph.D. in immunology or relevant related field with expertise in immunoglobulin genetics and protein expression. Specific project involves cloning, modifying and expressing DNA for a murine monoclonal antibody with high-level reactivity with many carcinomas, for eventual targeted cancer therapy. Multi-disciplinary laboratory with support available at various levels for the proposed work. For M.D. applicants, program may be tailored to allow for eventual board certification in nuclear medicine. Opportunity greatest for the venturesome. Please send curriculum vitae and names of two references to: **Richard L. Wahl, M.D., Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028.** *Applicants must be U.S. citizen or permanent resident. The University of Michigan is a Nondiscriminatory, Affirmative Action Employer.*

## FELLOWSHIPS

### POSTDOCTORAL FELLOWSHIP IN MOLECULAR MECHANISMS OF DNA DAMAGE, REPAIR AND MUTAGENESIS

Postdoctoral positions are available to participate in ongoing studies on the molecular mechanisms involved in the sequence-specific DNA damage produced by targeted antitumor antibiotic radicals. Current research interest centers around agents that, upon activation to a radical species, attack specific sites in DNA deoxyribose to generate novel double-stranded lesions. Experimentation will involve elucidation of the detailed chemical and biochemical mechanisms involved in DNA damage formation and repair, the DNA structural requirements leading to sequence-specific lesions, the relation of these lesions to mutagenesis, and the use of such agents as probes of unusual DNA structures. A background in DNA biochemistry or chemistry and/or molecular biology is desirable. Please send curriculum vitae, publications list and names of at least two references to: **Dr. Irving H. Goldberg, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, 250 Longwood Avenue, Boston, MA 02115.**

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

Postdoctoral fellowships to begin 1 July 1989 are now being offered by the Department of Ophthalmology at Emory University in vision research. Individuals with M.D., D.V.M. and/or Ph.D. degrees are sought. The program will allow training in several research areas: immunology, pharmacology, recombinant DNA, physiology, biochemistry, and experimental pathology. Special emphasis will be placed upon research training in clinically relevant problems. Stipends are dependent upon the trainee's previous experience and will range up to \$30,000 per year. *Applicants must be citizens or non-citizen nationals of the United States or must have been lawfully admitted for permanent residency at the time of appointment.* Deadline for receipt of such applications is 15 November 1988. Applicants will be notified by 1 January 1989 of their acceptance into the program. Interested persons please contact: **Dr. Bernard E. McCarey, Department of Ophthalmology, Emory University, 1327 Clifton Road, N.E., Atlanta, GA 30322.** *Equal Opportunity/Affirmative Action Employer.*

## SYMPOSIUM

### ADVANCES IN CHEMOTHERAPY OF AIDS 23 SEPTEMBER 1988

Symposium on recent advances in basic research on development of novel drugs and pharmacologic approaches against AIDS. Details and application forms from: **Division of Clinical Pharmacology, University of Alabama at Birmingham, Box 600, Birmingham, AL 35294.**

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- Nucleic Acid Probes

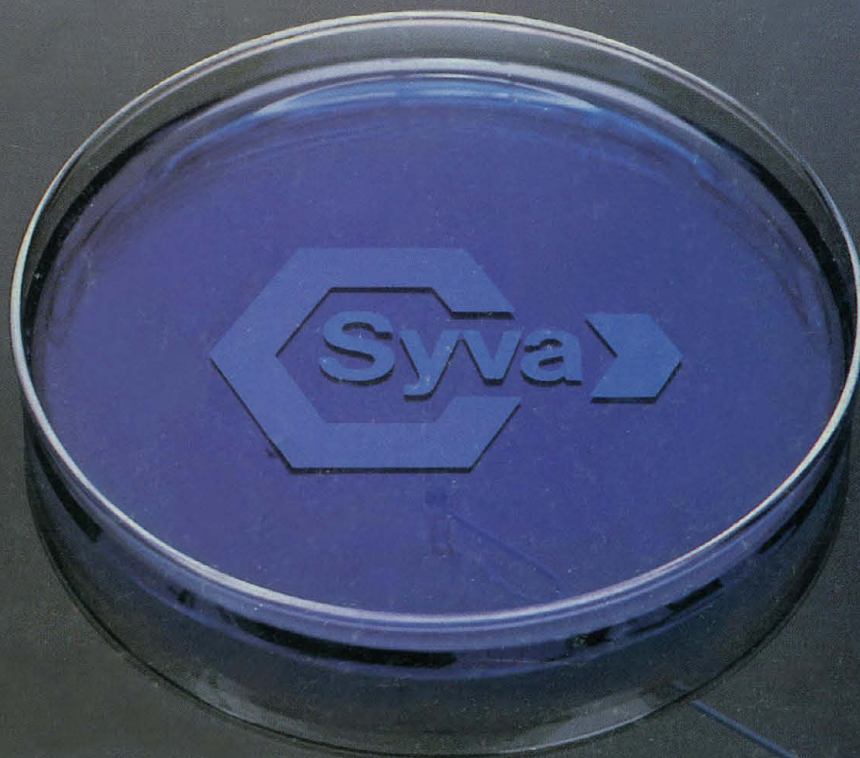
Creative senior scientists with experience in the above disciplines are needed for laboratory positions related to new assay development in both our Research and Development groups. To qualify for these key openings, a PhD or equivalent is essential with related post doctoral and/or industrial training.

In addition, we are looking for postdoctoral fellows and BS/MS level scientists with strong analytical capabilities. Some positions require industrial experience.

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