

has long been recognized to be one of the central problems of quantum chemistry." It contains four papers. The first, by Karol Jankowski (116 pp.), is intended to provide a short review of the methods that have been used in studies of electron correlation effects in atoms, with special attention to methods that might be also applied in the study of molecular systems and to atomic correlation effects of special interest with respect to the theory of molecular electronic structure. In the second (133 pp.) electron correlation in molecules is discussed by Miroslav Urban *et al.* In the two remaining chapters Wilson discusses methods for devising efficient four-index transformation schemes for two-electron integrals and B. H. Wells reviews the use of Green's function Monte Carlo methods in the solution of the molecular electronic Schrödinger equation. The volume includes author and subject indexes.

—K.L.

Environmental Radon. C. RICHARD COTHERN and JAMES E. SMITH, JR., Eds. Plenum, New York, 1987. xiv, 363 pp., illus. \$55. Environmental Science Research, vol. 35.

This volume is intended to "bring the reader to a level at which he can easily understand the current literature" on the effects of radon in the environment. It presupposes as background, according to the editors, only "some basic university-level chemistry and physics." The volume opens with a chapter outlining the physical properties of radon and the relevant units of measure, followed by an account of uses of radon from the 16th century to the present. Measurement methods and sources of the element are then surveyed. The next four chapters take up effects on humans—routes of exposure, dosimetry, health effects, and "mitigation" (building modifications that can reduce indoor exposure). A final chapter discusses risk assessment and policy issues. The book concludes with a glossary, appendixes giving equations for radioactive decay and conversion factors, reference lists for the individual chapters, a general reading list, and an index.—K.L.

Books Received

Climate and Plant Distribution. F. I. Woodward. Cambridge University Press, New York, 1987. xii, 174 pp., illus. \$39.50; paper, \$14.95. Cambridge Studies in Ecology.

Emergency Responses to Chemical Accidents. Planning and Coordinating Solutions. James T. O'Reilly. McGraw-Hill, New York, 1987. vi, 387 pp., \$39.50.

Optical Metrology. Kjell J. Gåsvik. Wiley, New York, 1987. xii, 231 pp., illus. \$49.95.

Peptide Hormone Receptors. M. Y. Kalimi and J. R. Hubbard, Eds. De Gruyter, Hawthorne, NY, 1987. viii, 720 pp., illus. DM 310.

Sex and Scientific Inquiry. Sandra Harding and Jean F. O'Barr, Eds. University of Chicago Press, Chicago, IL, 1987. viii, 317 pp. Paper, \$10.95.



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Peptide Separation Without Chromatography

PEP-SEPS are glass beads with amino acid-specific reagents bonded to them that capture peptides containing a particular amino acid. The initial solution may be decanted from the beads and the peptide reversibly removed. Currently available are PEP-SEPS for cysteine, arginine, methionine, and tryptophan. Applied Protein Technologies. Circle 598.

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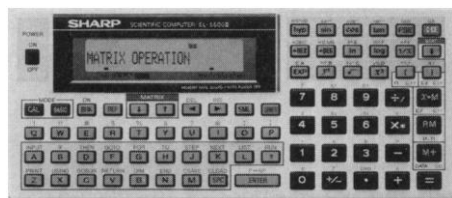
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Scientific Calculator

The EL-5500III is a pocket-sized scientific calculator with 85 scientific functions and BASIC built in. Matrices may be added, subtracted, multiplied, divided, inverted,



and transposed. Calculations may be stored in memory and then incorporated into BASIC programs. Calculations may also be performed while in BASIC mode. Sharp Electronics. Circle 597.

Instant Photos from Video Images

The FreezeFrame Video Image Recorder converts a video image to a color print, color slide, or black-and-white slide. The video signal may come from a video cassette recorder, video camera, laser disk player, or other National Television Standard Code-standard source. A fill feature colors in the spaces between raster lines for a smoother appearance. Although the user need only press a button to snap the picture, the image may be previewed on the monitor and may be adjusted for color, tint, contrast, sharpness, and brightness. \$1899. Polaroid. Circle 596.

Liquid Scintillation Counter

The 1205 Betaplate is a liquid scintillation counter that does not count from vials. Instead, labeled cells harvested or spotted onto filter supports may be counted directly from the support. Sample preparation time from harvesting to counting for 96 samples is less than 2 minutes, and only 10 to 20 ml of scintillant is needed. The counter has six simultaneously counting detector pairs, and its maximum capacity is 1920 samples. An

identification system reduces the chance of sample mix-up. Pharmacia LKB Wallac Oy (Finland). Circle 602.

Sound-Analysis Workstation

MacSpeech Lab II is a speech-, music-, and waveform-analysis workstation based on the Macintosh II computer. The system can capture signals as long as 4.5 minutes with bandwidths as high as 40 kHz. The digitized waveforms may then be viewed, played, analyzed, edited, and printed. Segments may be rearranged. The system can display a waveform as a time waveform, an envelope plot, a fundamental frequency plot, a fast Fourier transform spectral slice, a linear predictive coefficients spectral slice, or a spectrogram; the waveform may be displayed in three different forms at once. \$16,350. GW Instruments. Circle 601.

Data Acquisition Peripheral

The IDAC/1000 can capture eight channels of single-ended or four channels of differential analog input. It can transfer the data to an IBM or Macintosh personal computer through an RS-232C connector at a baud rate as high as 19,200. The IDAC/1000 has a 12-bit analog-digital resolution and a maximum sampling rate of 3600 conversions per second (aggregate) within voltage ranges of -10 to +10, -5 to +5, -2.5 to +2.5, 0 to 10, and 0 to 5 V. An optional spreadsheet software package for the host computer can configure a system if the user enters the parameters. \$995. International Data Acquisition + Control. Circle 603.

Literature

Tecam Dry Heat Baths is an 8-page catalog of compact constant-temperature heaters for test tubes, cuvettes, and other small containers. Techné. Circle 607.

The *RESOLVE Portfolio* contains product brochures on electrophoresis units, power supplies, and kits to separate particular proteins. Isolab. Circle 608.

Controller Product Catalog is a 60-page catalog of temperature and process controllers, programmer-controllers, power control products, indicators and alarms, and systems products. Eurotherm. Circle 609.

Lab Disposables is a brochure that describes acrylic and plastic racks, containers, dispensers, trays, and pipettes. Accurate Chemical and Scientific. Circle 610.

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275pp., 1986

Published by Westview Press for AAAS.

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Microbiologist, Ph.D. Research experience in genetics, microcosms, plasmid isolation and manipulations (including DNA probes), bacterial conjugation and transformation of anaerobic bacteria. Interests in genetics, plasmid molecular biology, food technology, engineering, SEM, and Japan/Japanese. Seeking industrial or faculty level academic position. Box 18, SCIENCE.

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Eastern New Mexico University invites applications for **ASSISTANT PROFESSOR** tenure-track position. Responsibilities: Teaching in general botany, vascular plant systematics, plant anatomy, plant physiology and introductory courses in general biology; active research; university service. Qualifications: Ph.D. in field appropriate to above description of duties. Effective date: 23 August 1988 pending funding. Send letter of application describing teaching and research interest, curriculum vitae, official transcripts and three letters of recommendation to: **Dr. Newel Jorgensen, Chair, Search Committee, Department of Life Sciences, #33, Eastern New Mexico University, Portales, NM 88130** by 20 March 1988. *ENMU is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

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Dr. Sarojam K. Mankau, Chair
Department of Biology
School of Natural Sciences
California State University
5500 University Parkway
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DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS ANNOUNCEMENT OF OPEN POSITION

The Department of Physiology and Biophysics at the University of Oklahoma Health Sciences Center at Oklahoma City invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Applicants should have training in neuroendocrinology or neuropharmacology; this individual will complement our neurophysiology program. The successful candidate will establish an independent research program, assist in the teaching programs of the department, and participate in departmental and college governance, and must have a Ph.D. or M.D. degree, and at least 2 years of postdoctoral training. The salary is competitive, and the tentative starting date is 1 July 1988. Applicants should send curriculum vitae, including a brief description of current research efforts, and a list of three references no later than 7 March 1988, to: **Robert W. Blair, Ph.D., Chairman, Search Committee, Department of Physiology and Biophysics, University of Oklahoma Health Sciences Center, Oklahoma City, OK 73190.** *The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

Wright State University, Department of Physiology and Biophysics, in the School of Medicine and College of Science and Mathematics is seeking an **ASSISTANT PROFESSOR** (tenure-track, 12-month appointment). Applicant should have a Ph.D. and/or M.D., or equivalent with a minimum of 2 years of postdoctoral experience. We are seeking a membrane physiologist/biophysicist with primary research interest and experience in single-channel analysis using patch clamp techniques with a strong commitment to develop or continue a first-rate research program in a department with a major research focus in cellular physiology and biophysics. Primary team-teaching responsibilities are in physiology in the School of Medicine and/or in physiology and biophysics in the Biomedical Sciences Ph.D. program. Compensation commensurate with professional experience and WSU standards. Applicants should submit curriculum vitae, a statement of research interests, and names and addresses of three references to: **Dr. Peter K. Lauf, Professor and Chair, Department of Physiology and Biophysics, P.O. Box 927, Wright State University School of Medicine, Dayton, OH 45402-0927.** Applications must be postmarked by 1 April 1988 to be considered. *WSU is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR PHARMACOLOGY TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

The Department of Pharmacology of the Texas Tech University Health Sciences Center in Lubbock is continuing to seek candidates for a tenure-track position at the assistant professor rank. The position is available immediately. Qualifications include the Ph.D. degree, preferably in pharmacology or a related biomedical science, with at least 2 years of postdoctoral training. Candidates will be expected to conduct an active, independent, and productive research program, and to be persistent in seeking and obtaining research funding. Applicants must be U.S. citizens or have U.S. permanent residence status. Applications should include curriculum vitae, and three names for reference purposes and should be sent prior to 1 March 1988, to: **Dr. Alexander D. Kenny, Chairman, Department of Pharmacology, Texas Tech University Health Sciences Center, Lubbock, TX 79430.** *An Equal Opportunity/Affirmative Action Employer.*



Wayne State University

INSTITUTE OF CHEMICAL TOXICOLOGY WAYNE STATE UNIVERSITY

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Curriculum vitae and three letters of reference should be sent by 31 March 1988 to:

**Dr. Raymond F. Novak
Chairman, Search Committee
Institute of Chemical Toxicology
Wayne State University
1072 Mackenzie Hall
Detroit, MI 48202**

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POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY. Applications are invited for the position of assistant professor of biology, a tenure-track appointment beginning mid-August 1988. A Ph.D. in cellular/molecular biology is required, and some teaching experience in biotechnology and/or plant science would be desirable. Teaching duties will include first-year biology courses and cell biology. The University of Houston-Downtown is an urban undergraduate institution with an enrollment of 7,200. Send a letter of application, résumé, and the names and addresses of four references to: **Dr. Al Avenoso, Department of Natural Sciences, University of Houston-Downtown, One Main Street, Houston, TX 77002.** Applications should be postmarked by 8 March 1988. *The University of Houston-Downtown is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR IMMUNOLOGY/MOLECULAR BIOLOGY

Applications are invited for the position of assistant professor (tenure-track) in the Division of Immunology and Cell Biology of the Department of Pathology, University of Utah. Candidates should have strong training records and interesting, original research plans. We offer a very collegial atmosphere within a group of young, active research scientists whose interests include molecular pathogenesis, growth factor action, cellular immunology and receptor dynamics. Our group is part of the campus-wide Combined Graduate Program in Molecular Biology, which offers integrated studies in biochemistry, genetics, immunology, cell biology, and molecular biology. Although we are interested in any excellent candidate that will complement our existing research programs, individuals with interests in molecular aspects of host-parasite interactions, lymphocyte differentiation, or somatic cell gene rearrangement are particularly desired. Interested persons should send their curriculum vitae, as well as have three reference letters sent to: **Dr. Raymond Daynes, Department of Pathology, Center for the Health Sciences, University of Utah, Salt Lake City, UT 84132.** *An Equal Opportunity/Affirmative Action Employer.* Closing date: 1 April 1988. Applications will be accepted after the deadline if no qualified candidate is identified.

ASSISTANT PROFESSOR MOLECULAR VIROLOGY

The Departments of Ophthalmology and Virology of Baylor College of Medicine seek an innovative scientist to develop an independent research program on herpes virus infections. Responsibilities also include establishing and coordinating a diagnostic ocular virology laboratory. Applicants for this tenure-track position at the assistant professor level should have a Ph.D. with at least 2 years of productive postdoctoral experience in virology research. Salary is commensurate with experience. Negotiable starting date. Send curriculum vitae, names of at least three references, and a statement of research interests to: **Dr. K. R. Wilhelmus, Chairperson-Search Committee for Molecular Virologist Position, Department of Ophthalmology, Cullen Eye Institute, Baylor College of Medicine, One Baylor Plaza (NC200), Houston, TX 77030.** *Equal Opportunity Employer.*

Applications are invited for a probationary (tenure-track) position at the rank of an **ASSISTANT/ASSOCIATE PROFESSOR** beginning 1 August 1988. Applicants must have an M.D. or Ph.D. degree, or equivalent, at least 2 years of postdoctoral experience, and be able to develop a strong independent research program in order to attract extramural funding at the national level. Research interests should be in the area of developmental/reproductive biology or cellular and molecular teratology or neurosciences. Primary teaching responsibilities will be in gross anatomy and neuroanatomy to medical and medical rehabilitation students. *Both men and women are encouraged to apply. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

Applicants should submit their curriculum vitae, an outline of their research goals, and arrange for three letters of reference to be sent to: **Dr. J. A. Thliveris, Professor and Acting Head, Department of Anatomy, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, R3E 0W3.** Deadline for applications is 1 April 1988.

POSITIONS OPEN

The University of Michigan Medical School, Department of Anesthesiology, is seeking a faculty member to be simultaneously appointed as an **ASSISTANT PROFESSOR AND ASSISTANT RESEARCH SCIENTIST** to pursue full-time research activities. Initial appointment will be without tenure; however, tenure could be considered at a later date. Ph.D. and/or M.D. with strong commitment to research and teaching in anesthesiology and epidemiology at both the basic science and clinical level. *A non-discriminatory, Affirmative Action/Equal Opportunity Employer. Box 21, SCIENCE.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY AND MOLECULAR BIOLOGY. Harvard University invites applications for a tenure-track junior faculty position in the Department of Biochemistry and Molecular Biology. Distinction in research and teaching is essential. Send curriculum vitae, a brief statement of research accomplishments and future plans, and names and addresses of at least three references to: **Professor Mark Ptashne, Chairman, Junior Faculty Search Committee, Department of Biochemistry and Molecular Biology, Harvard University, 7 Divinity Avenue, Cambridge, MA 02138.** *Harvard University is an Equal Opportunity/Affirmative Action Employer.*

Medical college enlarging its faculty. Invites applications from qualified Ph.D.'s and Pharm.D.'s to serve at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in the areas of pharmacology, microbiology, physiology and neuroanatomy. Title and salary commensurate with experience. Qualifications and experience must include strong graduate or medical school teaching skills and significant research experience. Send curriculum vitae, statement of proposed research, and references to: **Gloria Semente, Director of Special Projects, New York College of Osteopathic Medicine, Old Westbury, NY 11568.** Telephone: 516-626-6927.

ASSISTANT/ASSOCIATE PROFESSOR. Full-time, tenure-track faculty position available 1 July 1988 in the Department of Anatomy. Position requires Ph.D. Responsibilities include teaching histology to undergraduate and graduate dental students, and directing graduate student theses. Record of research and research funding desirable. Salary and academic rank commensurate with experience. *Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae to: **Dr. Joseph M. Gwogiel, Chairman, Department of Anatomy, School of Dentistry, Loyola University of Chicago, 2160 South First Avenue, Maywood, IL 60153.**

ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY. The Department of Physiology, Loyola University of Chicago at the Medical Center is seeking candidates for a tenure-track position at either the assistant or initial associate professor level. The department has strong research programs in cardiovascular physiology and pathophysiology. We are seeking an individual with a cellular and molecular emphasis which is complementary to our systemic and integrative cardiovascular interests. Candidates must have a Ph.D. or M.D., an independent research program, and postdoctoral or previous faculty status experience. A commitment to excellence in teaching medical and graduate students is required. Applicants should send a curriculum vitae including a list of publications, teaching experience, a brief statement of research interests, and at least three names of references by 15 March 1988 to: **James P. Filkins, Ph.D., Professor and Chairman, Department of Physiology, Loyola University of Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.**

Loyola University of Chicago is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSORSHIP POSITION IN SPINAL RECONSTRUCTIVE SURGERY

Applicants must have a specialty interest in bone histomorphometry. Applicants must have completed an approved spine fellowship and be capable of performing advanced spinal reconstructive surgical procedures. Please send résumé with salary history and requirements to: **Lee Riley, M.D., Department of Orthopedic Surgery, Harvey 611, Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, MD 21205.** *Johns Hopkins University is an Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR PLANT PATHOLOGY. Full-time, tenure-track appointment available 1 July 1988. Appointee must utilize tools of molecular biology to study the problems associated with the genetics of disease resistance and pathogen virulence. Appointee must also develop a competitive, externally funded research program centering on the molecular biology of plant pathogens and/or their interaction with higher plants. Ph.D. required in plant pathology with research experience in molecular biology, or Ph.D. in molecular biology or related field with research experience in plant pathology. Experience in molecular genetics of plant pathogenic fungi and postdoctoral training are preferred. Curriculum vitae, complete transcripts, statement of research interests and goals for the future and the names, addresses and telephone numbers of three professional references should be sent to: **Dr. T. W. Carroll, Search Committee Chairperson, Department of Plant Pathology, Montana State University, Bozeman, MT 59717.** Application deadline is 1 April 1988 or until a suitable candidate is hired. *MSU is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR MOLECULAR MICROBIOLOGISTS

The Department of Microbiology and Immunology, Louisiana State University Medical Center, Shreveport invites applications for two tenure-track positions. Microbiologists working at the molecular level in AIDS research, bacteriology, immunology, microbial genetics, bacterial pathogenesis, molecular virology or molecular parasitology will be considered. Competitive salary, modern laboratory, support personnel, and access to core facilities will be provided in an expanding department that emphasizes research and graduate education in molecular microbiology and immunology. Although preference will be given to applicants with an established and funded research program, young scientists with strong postdoctoral experience will also be considered. Minimal teaching responsibilities include the teaching of graduate students and sophomore medical students. Applicants should provide curriculum vitae and description of present and planned research activities and have three letters of reference sent to:

Dr. Dennis J. O'Callaghan
Professor and Head

Department of Microbiology and Immunology
Louisiana State University Medical Center
1501 Kings Highway, P.O. Box 33932
Shreveport, LA 71130-3932

Affirmative Action/Equal Opportunity Employer

ASSOCIATE RESEARCH SCIENTIST needed by a university-based cancer research laboratory involved in cancer immunology, cytogenetics and molecular biology studies. A Ph.D. with postdoctoral experience is preferred but B.S. diplomate will also be considered. Experience in tissue culture development, lymphokines and monoclonal antibody production, protein purification and/or karyotyping and/or DNA recombinant techniques is preferred. Opportunities for independent research projects exist. Salary based on qualifications and experience (from \$40,000 up). Please send curriculum vitae, and three names of reference to: **Dr. C. J. Rosenthal, SUNY-Health Science Center at Brooklyn, 450 Clarkson Avenue, Box 55, Brooklyn, NY 11203.**

BIOLOGY/HERPETOLOGY: ASSISTANT PROFESSOR, tenure-track position beginning August, 1988. Earned doctorate required with specialization in "cold-blooded" vertebrates. Teaching responsibilities include introductory zoology, evolution, and herpetology/ichthyology. Preference will be given to applicants with expertise in environmental or comparative physiology and/or vertebrate morphology. The position includes appointment to the Idaho Museum of Natural History in an educational, curatorial or research capacity. Successful applicants must demonstrate a commitment to undergraduate instruction, develop an active research program, and supervise graduate student research. Send curriculum vitae, statement of teaching and research interests, and three references by 15 March 1988 to:

Search Committee
Department of Biological Sciences
Idaho State University
Pocatello, ID 83209

Idaho State University is an Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR BIOCHEMISTRY/BIOPHYSICS WASHINGTON STATE UNIVERSITY

The Biochemistry/Biophysics Program is seeking to fill a tenure-track position beginning August 1988 or later. Appointment will be at the assistant or associate professor level. Applicants should have research interests and experience in structural analysis of biological macromolecules or assemblies. Appropriate areas include application of x-ray crystallography, nuclear magnetic resonance, electron microscopy or spectroscopy to elucidation of structure in proteins, nucleic acids, protein-nucleic acid complexes or more complicated assemblies, including membranes. Candidates should have a Ph.D. in biophysics, biochemistry, or a related discipline, postdoctoral training, and a record indicating outstanding abilities and potential in research and teaching. The successful candidate will be expected to develop and maintain a vigorous research program supported by extramural funding, train graduate students, and participate in graduate and undergraduate teaching. Send a letter of application, curriculum vitae, statement of research plans and three letters of reference to: **Dr. Gerald L. Hazelbauer, Faculty Search Committee, Biochemistry/Biophysics Program, Washington State University, Pullman, WA 99164-4660.** Deadline is 15 March 1988 or until position is filled. *WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply and to identify their status.*

U.S. DEPARTMENT OF ENERGY ASSOCIATE DIRECTOR FOR HEALTH AND ENVIRONMENTAL RESEARCH OFFICE OF ENERGY RESEARCH

The Department of Energy (DOE) is seeking applicants for the Senior Executive Service position of associate director for Health and Environmental Research. This executive plans, manages and assesses Office of Energy Research supported basic and applied research. Program aspects include molecular and subcellular mechanisms underlying human somatic and genetic processes and their responses to environmental toxicants; atmospheric, marine and terrestrial processes; nuclear medicine and epidemiology, structural biology, and advanced instrumentation.

The preferred candidate will be a U.S. citizen with a M.D. or Ph.D. degree in an appropriate biological science. He/she will have experience in directing basic and applied research in health and medical sciences; integrating internal and external program and policy issues; directing/guiding programs, projects, or policy development; and program monitoring and evaluation. Salary range: \$64,700 and \$75,500. Position location: DOE facility, Germantown, Maryland.

Direct inquiries to and obtain application materials from: **Ms. Rosalee Williams-SM/88/2, MA-204.1; Office of Personnel, U.S. DOE, 1000 Independence Avenue, S.W., Washington, D.C. 20585, or call: 202-586-8461.** Completed applications must be postmarked no later than 2 March 1988.

U.S. DOE is an Equal Opportunity Employer.

UNIVERSITY OF CALIFORNIA SAN FRANCISCO DEPARTMENT OF RADIOLOGY ASSOCIATE PROFESSOR IN RESIDENCE

Position available in the Magnetic Resonance Unit, Veterans Administration Medical Center, Department of Radiology, University of California, San Francisco. Major duties: develop, implement, evaluate and modify improved spectroscopic imaging techniques to be used to investigate tissue metabolism in experimental animals and human subjects by magnetic resonance. Requirements: Ph.D. in physics, demonstrated established reputation in the field, and ability to independently obtain grant support. Also, considerable experience in magnetic resonance instrumentation hardware, gradient and rf coils, various pulse sequences, software design, image reconstruction and data analysis. *University of California is an Equal Opportunity/Affirmative Action Employer. Women, minorities and handicapped individuals are encouraged to apply.* Send curriculum vitae, description of proposed research, and names of three references to: **Dr. M. Weiner, Magnetic Resonance Unit (11D), VA Medical Center, 4150 Clement Street, San Francisco, CA 94121.**

POSITIONS OPEN

ASSISTANT RESEARCH BIOCHEMIST, Cardiovascular Research Institute, University of California, San Francisco. To study receptors and signal transduction (G proteins, adenylate cyclase, phospholipase C) in smooth muscle and other airway cells involved in the pathogenesis of asthma. Applicant must have a Ph.D. with experience in protein isolation and analysis including HPLC. Salary \$36,600. Send curriculum vitae and names of three references by 1 March 1988 to: **James K. Brown, M.D., Respiratory Care Section (111D), VA Medical Center, 4150 Clement Street, San Francisco, CA 94121.** *An Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY AND MOLECULAR BIOLOGY OF PLANT LIPIDS

POSTDOCTORAL POSITION to study regulation and coordinate control of plant fatty acid synthetase proteins. Ongoing projects include (i) use of existing acyl carrier protein clones and isolation of additional clones as probes of the developmental and constitutive regulation of plant lipid synthesis, (ii) enzymology of lipid synthesis in leaves and seeds. Send résumé to: **John Ohlrogge, Department of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824.** Telephone: 517-353-0611. *MSU is an Equal Opportunity/Affirmative Action Employer.*

GEORGIA TECH CELLULAR/MOLECULAR/ INDUSTRIAL BIOLOGISTS

The School of Applied Biology, Georgia Institute of Technology invites applications for three tenure-track positions, beginning September 1988. The appointments will be made at the assistant professor level although a higher rank, depending on qualifications, will be considered.

CELL BIOLOGIST (IMMUNOLOGIST): Applications are solicited from individuals who use modern biochemical/molecular techniques at the cell level, with a particular area of interest being cellular immunology.

MOLECULAR BIOLOGIST: Applicants should have a strong background in modern molecular biology, working with either prokaryotic or eukaryotic systems.

INDUSTRIAL BIOLOGIST: Applicants should have training in industrial microbiology and fermentation technology. Applicants with industrial experience are desirable.

Selection will be based on teaching ability and strength of research program. Responsibilities will include the direction of graduate students and formal teaching at both the undergraduate and graduate levels, with course offerings in the applicant's area of expertise as well as participation in an introductory biology sequence. Candidates selected will be expected to participate in the Research Center for Biotechnology.

Interested individuals should submit a complete curriculum vitae, the names of three references, reprints of relevant publications, and a cover letter outlining their research interests and teaching experience to: **Thomas G. Tornabene, School of Applied Biology, Georgia Institute of Technology, Atlanta, GA 30332.** Telephone: 404-894-3747. The closing date for applications is 31 March 1988, or when suitable candidates are found. *The Georgia Institute of Technology is a unit of the University System of Georgia, and is an Equal Opportunity/Affirmative Action Employer.*

COLLECTION MANAGER DIVISION OF FISHES

Field Museum of Natural History, Division of Fishes seeks to fill full-time staff position having primary responsibility for the maintenance and care of collection of world-wide scope. Duties include identification, curation, loan management as well as responding to scientific and public inquiries. Will also be expected to coordinate with cataloguing and skeletal preparation programs, and to supervise student and volunteer assistants. Opportunities for teaching and participation in field work and research. B.S. and 3 years of experience in major museum collection or equivalent required. Previous supervisory and computer experience desirable. Send curriculum vitae with names and telephone numbers of three references, and statement of career objectives to: **Kathryn Hill, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605.** Application deadline is 26 February 1988. *Field Museum is an Equal Opportunity Employer. Women and minorities encouraged to apply.*

POSITIONS OPEN

CELL BIOLOGIST/BIOCHEMIST: (Ph.D. or M.D.) to join academic division of gastroenterology/hepatology. Interest in hormonal and other mechanisms influencing biliary transport, motility, and/or gallstone formation preferred. Must be established investigator with extramural research support. Position is on tenure-track with competitive, ongoing salary support. Offers excellent basic research collaboration with possible joint appointment. Ample laboratory space, some start-up funds available. Send curriculum vitae to: **Douglas L. Brand, M.D., Health Sciences Center T-17, Room 060, SUNY Stony Brook, Stony Brook, NY 11794.** *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK #333.*

COMPARATIVE ANIMAL PHYSIOLOGIST

Assistant professor, tenure-track, to begin September 1988. Ph.D., postdoctoral experience and record of publications indicating ability to establish an active, independent research program are required. Research should focus on physiological adaptation. Applicants should have strength in the application of quantitative techniques to experimental or theoretical problems. Teaching assignments in undergraduate and graduate curriculum. Applications received by 19 February 1988 will receive priority consideration. Send curriculum vitae, description of research, and three references to: **Professor Richard H. White, Chair of Search Committee, Biology Department, College of Arts and Sciences, University of Massachusetts (UMass)/Boston, Harbor Campus, Boston, MA 02125-3393.** *An Affirmative Action/Equal Opportunity Title IX Employer.*

STANFORD UNIVERSITY SCHOOL OF MEDICINE CHAIRPERSON, DEPARTMENT OF PSYCHIATRY

Stanford University School of Medicine seeks applications or nominations of candidates for the Chairmanship of The Department of Psychiatry and Behavioral Sciences.

The clinical resources available to the Department will be increased dramatically through the construction, in the very near future, of the Charter Hospital at Stanford, located at the Medical Center. This new psychiatric hospital will provide inpatient units, outpatient clinics and office and dry-laboratory space for the faculty. These new clinical facilities, when added to the existing research space and programs in the School of Medicine will provide a unique opportunity for the development and implementation of new and exciting programs in teaching, patient care and clinical and basic research.

Qualifications include an excellent record of scholarship; demonstrated commitment to the education and training of medical students, housestaff, fellows and faculty; excellence in clinical care and a broad knowledge of changes in the direction and governance of clinical care; and, in particular, demonstrated skill in providing administrative leadership and in interacting within hospital and academic arenas.

Stanford University School of Medicine is committed to increasing the representation of women and members of minority groups among its faculty. Therefore, we particularly encourage the application and nomination of such candidates.

Applications and nominations, including curriculum vitae, should be sent to: **Irving Schulman, M.D., Chairman, Department of Pediatrics, Stanford University Medical Center, Stanford, CA 94305.**

DEVELOPMENTAL BIOLOGIST ASSISTANT PROFESSOR

Broadly trained developmental biologist with strengths at the molecular level to teach courses in modern developmental cell biology to undergraduates. Ph.D. required. Postdoctoral experience desirable. TEM experience useful, but not required. Faculty are expected to conduct active research programs in which qualified undergraduates may be involved. Start up funds for research are provided. Position available 1 July 1988. Please send curriculum vitae, statement of research/teaching interests, and names and addresses of three references by 19 February 1988 to: **Chair, Department of Biology, Williams College, Williamstown, MA 01267.**

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

POSITIONS OPEN

DEAN OF OPTOMETRY THE OHIO STATE UNIVERSITY

Applications and nominations are invited for the position of Dean of Optometry. As executive officer of the College of Optometry, the Dean assumes fiscal and administrative responsibility for all educational, research and clinical programs within the College. The deanship is a 12-month position which is available 1 July 1988. Applications should include curriculum vitae, and names, addresses, and telephone numbers of four references. The Search Committee will continue to receive nominations and applications until the Dean is selected.

Applications and nominations should be addressed to:

**Dean William R. Wallace
Chairperson, Optometry Dean Search Committee
The Ohio State University
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall
Columbus, OH 43210**

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

DIRECTOR UNIVERSITY OF MARYLAND MARYLAND AGRICULTURAL EXPERIMENT STATION

The Director of Maryland Agricultural Experimental Station administers and supports agricultural research programs conducted throughout the state. This person is administratively responsible to the Vice President of Agricultural Affairs.

Qualifications include an earned doctorate in agricultural science or a related field, tenurable within an academic department, and a record of excellence in scientific research. Candidates must also show evidence of effective organization and leadership through a proven record of successful administrative experience at the department head level (or equivalent) or higher, wherein a close association existed with agricultural research. Salary is negotiable.

Completed applications should be received by 15 April 1988. Applications should be sent to: **Dr. Dennis C. Westhoff, Chairperson Search Committee, Animal Science Building, Room 3115, University of Maryland, College Park, MD 20742.** *Equal Opportunity Employer/Affirmative Action.*

DIRECTOR DIABETES RESEARCH INSTITUTE

Eastern Virginia Medical School invites applications and nominations for the position, Director, Diabetes Research Institute. The Diabetes Research Institute is part of a comprehensive regional diabetes center that also includes clinical and educational components. The Institute has already received substantial initial support through an aggressive local and national fund-raising effort. The successful candidate will possess an extensive academic background, an established record of excellence in diabetes research and the skill, capacity, and entrepreneurial instinct to assure the long-term success of the Research Institute. Responsibilities of the position include developing a research program that will make significant contributions to the field of diabetes as well as directing research projects, program administration, and outreach. Full faculty status and benefits are available; conditions and salary are negotiable. Please reply to:

**Leon P. Georges, M.D.
Acting Center Director
The Diabetes Center of Eastern Virginia
P.O. Box 1980
Norfolk, VA 23501**

ECOLOGIST—Tenure-track position in systems ecology available fall 1988. Expertise desired in primary productivity, phytoplankton ecology, plant-herbivore interactions, and nutrient cycling. The successful applicant will develop a quality, externally-funded research program, and teach undergraduate, M.S., and Ph.D. students. Appointment expected at assistant professor level, but exceptional candidates may be considered at advanced levels. Send curriculum vitae, reprints, statement of research interests, and three letters of reference by 7 March 1988 to: **Dr. Craig Williamson, Search Committee Chair, Department of Biology #31, Lehigh University, Bethlehem, PA 18015.** *Lehigh University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DIRECTOR CENTRE FOR NORTHERN STUDIES

Lakehead University is seeking a Director for a newly established Centre for Northern Studies. The Centre's focus is upon the northern part of the provinces, especially northwestern Ontario, and upon similar regions in the other nations of the circumpolar north. The Director will be expected to establish programs of instruction and a long-term research program in northern studies as well as establish strong links with regional community groups and economic development agencies. The candidate should be an experienced academic with demonstrated administrative and research ability. He or she should have a background in northern studies, be willing to travel extensively and have the ability to work with universities, industry, government agencies, native groups and others interested in northern education and research.

The salary for the position is dependent upon qualifications and experience. The appointment would be for a 5-year renewable term with a 2-year probationary period. The appointee might be offered a position as an adjunct professor in the appropriate academic department. The preferred starting date is 1 July 1988. Applications, along with the names of three referees, should be sent by 31 March 1988 to: **Geoffrey R. Weller, Vice-President (Academic), Lakehead University, Thunder Bay, Ontario, P7B 5E1. Telephone: 807-343-8201.** *In accordance with Canadian Immigration regulations, this advertisement is directed to Canadian citizens and permanent residents. An Equal Opportunity Employer.*

University of Miami School of Medicine is accepting applications and nominations for the position of **DIRECTOR** of the Papanicolaou Comprehensive Cancer Center, to succeed Dr. Gordon Zubrod, who is retiring. The individual must possess a record of research accomplishment, and demonstrate administrative and leadership capability.

This position is tenured: the candidate should have an M.D. or Ph.D. degree, and qualify for professor level in their respective discipline. The director's charge is to initiate and enhance the cancer effort by developing and facilitating interdisciplinary programs in the areas of clinical care, research, and education for the school and community.

Please send correspondence and curriculum vitae to: **Gerard A. Kaiser, M.D., Chairman Search Committee for Comprehensive Cancer Center, University of Miami, Cardiovascular Surgery (R114), Miami, FL 33101.**

DIRECTOR OF AQUATIC SCIENCES

The New York Zoological Society seeks an outstanding candidate to direct its efforts at the New York Aquarium, The Osborne Laboratories for Marine Sciences, and to serve as Senior Scientist in the aquatic activities of Wildlife Conservation International.

This Ph.D. will be involved in exhibit and research, education, and international conservation of all aquatic species. A dedication to world conservation with the ability to manage a major museum and laboratory is required. Send curriculum vitae to:

**Angelo Monaco
Personnel Department, NYZS
185th Street and South Boulevard
Bronx, NY 10460
*Equal Opportunity Employer M/F/H/V***

DIRECTOR, DIVISION OF INFECTIOUS DISEASES: The Department of Internal Medicine of St. Louis University School of Medicine invites applications and nominations for the position of Director of its Division of Infectious Diseases. We seek a physician-scientist with a substantial publication record and a history of peer-reviewed grant support. The Director will be responsible for developing and leading a vigorous research-oriented Division. Generous new research space and financial support will be provided. Please forward nominations and applications to: **Coy D. Fitch, M.D., Chairman, Department of Internal Medicine, St. Louis University School of Medicine, 1325 South Grand Boulevard, St. Louis, MO 63104.** *Equal Opportunity Employer M/F/H/V.*

Molecular Modeling

The Protein Engineering Group at Monsanto's World Headquarters and Research Center is seeking three PhD scientists as part of its expanding research program focusing on protein structure-function relationships.

Successful candidates must have a PhD in Biophysics, Chemistry or other relevant disciplines and a strong background in the areas of molecular modeling, drug design, molecular graphics and computational chemistry. Candidates will work as part of an interdisciplinary team of scientists, therefore, good communication skills and a working knowledge of basic biological processes is required.

Two of the candidates should have a strong interest and background in the area of small molecule and peptide computation and modeling. The third candidate should have strong interest and background in the area of protein computation and modeling.

Monsanto, a leader in biotechnology, offers an exciting opportunity to work closely and collaborate with Protein Crystallographers, Spectroscopists, Biochemists, Chemists, Molecular Biologists and other Molecular Modelers on problems related to agricultural science, human healthcare and animal healthcare.

Interested candidates should send their resume and 3 letters of recommendation to: **MONSANTO COMPANY; John Bussen; Department BB5B-MM; 700 Chesterfield Village Parkway; St. Louis, MO 63198.** Equal Opportunity Employer M/F/H/V.

Monsanto

As one of the leading Biotechnology firms, our research is focused on the development and application of recombinant DNA technology in the areas of human health care and chemicals. As an integral member of our team, we will provide you with a modern, scientific work environment that is stimulating, creative and affords you the freedom, flexibility and resources to make the kind of contributions that can last a lifetime.

PROTEIN BIOCHEMISTRY

We currently have an opening for a staff scientist in our cancer program. Responsibilities will include engineering and purification of new proteins for targeting tumor cells and defining protocols for rapid screening of mutant cell-surface binding proteins. The ideal candidate will have a PhD with a minimum of one year relevant postdoctoral experience in protein biochemistry and a working knowledge of molecular biology and eukaryotic/bacterial expression systems.

We offer a stimulating environment, excellent salary, equity participation, and a complete benefits package. Qualified applicants, should forward their resumes in confidence, to: Sheri Rist, Genetics Institute, 87 CambridgePark Drive, Cambridge, MA 02140.

An Equal Opportunity/Affirmative Action Employer.

Genetics Institute

RESEARCH ASSOCIATE MOLECULAR BIOLOGY

Amgen, an industry leader in advanced biotechnology, develops products for a wide variety of applications. Recent progress has created an opportunity for a Research Associate in our Specialty Chemicals and Enzymes Group.

Qualified applicants should have a BS or MS in Molecular Biology, Biochemistry or a related discipline and 2-4 years of experience in Prokaryotic Molecular Biology or Molecular Genetics. Experience with basic molecular biological techniques such as library construction, vector construction, immunoblot analysis and enzyme assays is essential. Familiarity with Gram positive organisms is highly desirable.

Amgen offers a stimulating and challenging research environment as well as an attractive location one hour northwest of Los Angeles. **Amgen** also offers an excellent compensation and benefits package. Qualified applicants should send a resume and a list of 3 references, in confidence, to:

Recruitment, Dept. #23
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer



Postdoctoral Scientist Immunopharmacology

The Departments of Immunology and Molecular Pharmacology at Smith Kline & French Laboratories, located near Valley Forge, PA, are seeking a Postdoctoral Scientist to join a multidisciplinary team studying the cellular and molecular pharmacology of suppressor cell induction in an attempt to design novel therapeutic strategies for immunoregulation. The successful candidate will use a variety of *in vitro* and *in vivo* techniques to identify and characterize suppressor cell populations resulting from pharmacologic induction as well as the cellular and molecular mechanisms underlying these events.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and full interaction with the scientific community. Our postdoctoral appointments are normally for two years duration.

Candidates are required to have:

- a Ph.D. in Immunology or Cellular Biology with 0-2 years postdoctoral experience.
- experience in *in vitro* and *in vivo* models of immunoregulation.
- knowledge and interest in receptor interactions and the molecular aspects of cell activation.
- excellent verbal and written communication skills.

We offer excellent compensation and benefits as well as an attractive relocation policy. For confidential consideration, send your C.V. and the names of three references to Robert F. Obst, R0092, R&D Senior Employment Consultant, Smith Kline & French Laboratories, Research and Development Division, P.O. Box 1539, King of Prussia, PA 19406-0630. We are an Equal Opportunity Employer, M/F/H/V.

SK&F

A SmithKline Beckman Company

POSITIONS OPEN

FACULTY POSITION, CLINICAL RETROVIROLOGY LABORATORY

Associate Director of the Clinical Microbiology-Immunology Laboratories, North Carolina Memorial Hospital, with responsibility for direction of the Clinical Retrovirology Section. Position includes an appointment as assistant professor in the Departments of Microbiology and Immunology and of Pathology at the University of North Carolina at Chapel Hill. Ph.D. and/or M.D. degrees with training in virology or immunology or both is required. Experience in virology is essential, while Board certification (eligibility) by the ABMM and/or ABP or equivalent is desirable. The candidate will be expected to develop a productive research program in clinical retrovirology and to teach clinical microbiology to medical students, residents and postdoctoral fellows. *We encourage applications from and nominations of minority and female candidates; such persons may identify themselves voluntarily.* Candidates should submit curriculum vitae, and the names and addresses of three references to: **James D. Folds, Ph.D., Director, Clinical Microbiology-Immunology Laboratories, Department of Hospital Laboratories, North Carolina Memorial Hospital, University of North Carolina, Chapel Hill, NC 27514.** Applications will be accepted until 1 April 1988. *The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

BROWN UNIVERSITY FACULTY POSITION IN BIOMEDICAL ENGINEERING

The Division of Engineering at Brown University announces the opening of a tenure-track position available on 1 January 1989 in Biomedical Engineering, within the Fluid Mechanics, Thermodynamics and Chemical Processes Group. The appointment will be made at the level of assistant professor. Applications are invited from candidates who have a Ph.D. degree or equivalent experience and a strong research background in areas such as biomechanics, biofluidynamics, biological transport processes or related areas. The appointee will be expected to teach in the undergraduate engineering core curriculum and in senior and graduate courses in the appropriate engineering area of specialty, and to conduct significant analytical, computational or experimental research both independently and collaboratively. A complete résumé, including the names of at least three references, should be sent to: **Professor P. D. Richardson, Biomedical Engineering Search Committee, Division of Engineering, Box D, Brown University, Providence, RI 02912,** by 1 April 1988 for full consideration. *Brown University is an Affirmative Action/Equal Opportunity Employer.*

MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF BIOCHEMISTRY FACULTY POSITION IN NUTRITION

Requirements: Ph.D. degree with background in either clinical nutrition (therapeutic human nutrition) or institutional management. Candidates must be eligible for, or have membership in, the Canadian Dietetic Association or the American Dietetic Association. The candidate should have postdoctoral training and teaching experience and be able to conduct independent research. Appointment at the assistant or associate professor level is expected. The Department offers undergraduate and postgraduate degrees in biochemistry, nutrition, dietetics and food science.

In accordance with Canadian Immigration policy, consideration, in the first instance, will be given to Canadian citizens and permanent residents of Canada. Others will be considered and are encouraged to apply.

Application, including the names of at least three references, should be sent to: **Dr. K. M. W. Keough, Professor and Head, Department of Biochemistry, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, A1B 3X9,** from whom further information can be obtained.

FISHERIES POSITIONS: Aquaculturist with M.S. in biology, specializing in fish culture and larval rearing; Larval Food Specialist with M.S. in biology, specializing in biology of micro-organisms; Larval Rearing Specialist with Ph.D. in fish larval ecology and experience in marine fish hatcheries. Mail résumés to: **Oceanic Institute, Makapuu Point, Waimanalo, HI 96795.**

POSITIONS OPEN

Utah Department of Health is recruiting **ENVIRONMENTAL TOXICOLOGIST** for Superfund/Hazardous Waste programs to provide expert technical and policy assistance in evaluating hazardous substances sites and their impacts on health/environment. For more information call or write: **Division of Environmental Health, P.O. Box 16690, Salt Lake City, UT 84116-0690; telephone: 801-538-6170.** Open until filled. *Equal Opportunity Employer.*

The Department of Physics at Memorial University of Newfoundland invites applications for a tenure-track **FACULTY POSITION**, subject to final budgetary approval, in condensed matter physics. Preference will be given to applicants who would complement the present experimental and theoretical condensed matter group. Facilities include a liquid helium production plant within the Department, and excellent machine, electronics, glass-blowing and welding shops and access to the University computing facilities. Applications, including curriculum vitae and the names of three referees, should be forwarded to:

**Dr. D. H. Rendell, Head
Department of Physics
Memorial University of Newfoundland
St. John's, Newfoundland
A1B 3X7**

In accordance with Canadian Immigration policy, this advertisement is directed, in the first instance, to Canadian citizens and permanent residents of Canada.

The Department of Physics at Memorial University of Newfoundland invites applications for a tenure-track **FACULTY POSITION**, subject to final budgetary approval. The Department maintains a full instructional programme at the B.Sc., M.Sc. and Ph.D. levels. Research activities are mainly in the areas of condensed matter physics, molecular physics, physical oceanography and theoretical physics. Preference will be given to applicants in the molecular or condensed matter areas. Applications, including curriculum vitae, and the names of three referees, should be forwarded to:

**Dr. D. H. Rendell, Head
Department of Physics
Memorial University of Newfoundland
St. John's, Newfoundland
A1B 3X7**

In accordance with Canadian Immigration policy, this advertisement is directed, in the first instance, to Canadian citizens and permanent residents of Canada.

FACULTY POSITIONS IN APPLIED BIOCHEMISTRY/ MOLECULAR BIOLOGY OREGON GRADUATE CENTER

The Oregon Graduate Center is expanding its program in bioconversion technology. We are inviting applications for the following positions:

FUNGAL/YEAST MOLECULAR BIOLOGIST: Experience in gene expression/regulation, protein secretion, or biodegradation with novel organisms.

MICROBIAL BIOCHEMIST: Background in biochemistry and/or molecular biology with experience in the degradation/transformation of natural or xenobiotic compounds.

PROTEIN BIOCHEMIST/ENGINEER: Background in protein chemistry, enzymology, immunology and/or genetic engineering. Prefer candidates with experience in utilizing molecular genetics to study structure-function relationships with enzymes.

PLANT BIOCHEMIST/MOLECULAR BIOLOGIST: Candidates with experience in the enzymology, secondary metabolism or host-microbe interactions of higher plants, and/or molecular biology of forest trees are particularly encouraged to apply.

Requirements: Ph.D., several years of postdoctoral experience, and ability to develop a strong research program and graduate level courses in areas of specialty. Appointments will be made at the level of assistant professor or higher depending on qualifications.

Send curriculum vitae, a statement of research interests, and the names, addresses, and telephone numbers of three references by 1 March 1988 to: **Dr. Michael H. Gold, Search Committee Chair, Department of Chemical and Biological Sciences, Oregon Graduate Center, 19600 N.W. Von Neumann Drive, Beaverton, OR 97006-1999.** *Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITION FOR CELLULAR/MOLECULAR BIOLOGIST

Applicants are invited for an independent researcher to work in the Department of Medicine, Division of Pulmonary Diseases, at The University of Texas Health Science Center at San Antonio. Position is at the assistant or associate professor level and is immediately available. Applicants must have Ph.D. or M.D. degree with experience in cellular and/or molecular biology. Send curriculum vitae and names of three references to: **Stephen G. Jenkinson, M.D., Chief, Pulmonary Diseases Division, Department of Medicine, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284.** *An Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF) FACULTY POSITION IN ENDOCRINOLOGY/INTERCELLULAR COMMUNICATION

The Department of Physiology, UCSF seeks candidates for a tenure-track position at the level of assistant or associate professor. The starting date is flexible. Candidates should have an active research program using genetic, molecular and/or cellular techniques to study problems of intercellular communication. Interested individuals should send curriculum vitae, a summary of research, and arrange to have at least three letters of recommendation sent before 1 March 1988 to: **Endocrine Search Committee, Department of Physiology, Box 0444, M. F. Dallman, University of California, San Francisco, CA 94143-0444.**

UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

The University of California, Los Angeles—**FACULTY POSITION** in Environmental Science and Engineering (ESE), School of Public Health. Applications are requested for an upper level appointment to the core faculty of the Interdepartmental Environmental Science and Engineering Program and, jointly, to the Division of Environmental and Occupational Health Sciences. The research and teaching area of interest is air quality, broadly defined. The ESE Program emphasizes the relationship between science and public policy, so a demonstrated interest in this relationship plus an outstanding record of research in a specialized area is required. The appointment will offer the opportunity for participation in the M.S. and Ph.D. training programs of the Division and for interaction with engineers and basic scientists from other departments such as Atmospheric Sciences, who participate in the ESE Program. Please send applications including a résumé, statement of research and teaching goals, and names of three references by 15 May 1988 to: **William H. Glaze, Chair, ESE Search Committee, School of Public Health, UCLA, Los Angeles, CA 90024.** *UCLA is an Affirmative Action/Equal Opportunity Employer. Applications from minority and women candidates are especially solicited. Under Federal law, the University of California may employ only individuals who are legally authorized to work in the United States as established by providing documents specified in the Immigration Reform and Control Act of 1986.*

FACULTY POSITION IN DEVELOPMENTAL BIOLOGY

The Department of Anatomy and Cell Biology invites applications for a tenure-track faculty position. Applicants should have a strong training in developmental biology, including postdoctoral studies, with an orientation toward the nervous system. Successful candidate will be expected to participate in the campus-wide Neuroscience Committee activities and in the neuroanatomy course, and develop an independent, funded research program. Recruitment will continue until the candidate is identified. Please send a description of research interests, curriculum vitae, and the names of three references before 15 March 1988 to: **Dr. C. H. Anderson, Search Committee, Department of Anatomy and Cell Biology (m/c 512), University of Illinois at Chicago, P.O. Box 698, Chicago, IL 60680.** *The UIC is an Equal Opportunity/Affirmative Action Employer.*

Scientists—PhD, MS, BS

New Drug Discovery Programs in Virology

Schering Corporation, world-recognized for its achievements in pharmaceuticals, seeks outstanding scientists experienced in virology to participate in new drug development programs at our Research Division in Bloomfield, NJ. Positions are at both the PhD (0-5 years' post-doctoral experience) and Technical Assistant (BS or MS plus 0-3 years' experience) levels.

You will contribute your knowledge to ongoing pharmaceutically-oriented research efforts to understand mechanisms of viral genetic regulatory control at the molecular level. Requires expertise in either RNA, DNA or HIV and fundamental skills in molecular biology. Demonstration of superior original research initiative in PhD and post-doctoral research studies is important. At the technical level, basic skills and demonstrated experience in any of these areas is necessary. Other positions require experience in construction and use of transgenic systems. Excellent written and communications skills are essential.

Applicants should forward resume to: Mr. Louis DeMartino, Schering Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.



SCIENTISTS AND ASSISTANT SCIENTISTS MOLECULAR BIOLOGY

BACHEM Bioscience, Inc. is the newly founded US subsidiary of BACHEM Switzerland. We are a young, dynamic and growing company; a leader in the field of biologically active peptides. We are expanding into biotechnology and have openings for Scientists and Assistant Scientists in the field of molecular biology.

Successful candidates must have a Ph.D., M.S., or B.S. in Molecular Biology or a related field and experience in cloning and expression of eucaryotic genes in E. coli and in purification and renaturation of recombinant proteins from E. coli.

Interested candidates send their curriculum vitae with references and salary history to:

Director of Molecular Biology
BACHEM Bioscience, Inc.
3700 Market Street
Philadelphia, PA 19104

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R&D SCIENTIST / MANAGER Hepatitis/ HIV Assay Development

E.N.I., a recognized leader in the field of immunodiagnostics, has an excellent opportunity for an individual to play a key role with a growing, successful R&D team.

The ideal candidate will have a Ph.D. in Microbiology, Biochemistry, or a related field with a minimum of 3 years industrial experience in hepatitis assay development (HIV experience a definite plus). Excellent communication, management, and organizational skills are required.

Strategically located in the Baltimore/Washington Metropolitan area, E.N.I. offers excellent benefits, a competitive salary, and a stimulating work environment. For consideration, please send your resume to Sherrilyn Albury:

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Synergen, a leading biotechnology company in Boulder, Colorado, offers the opportunity to build scientific careers in a stimulating intellectual environment. We seek recent Ph.D.s with postdoctoral experience, technicians, and more senior people interested in becoming part of a rapidly expanding company. There are currently openings for the following persons:

Molecular Biologists to study the expression of eukaryotic genes encoding growth factors, neurotrophic factors, and proteins that modulate inflammatory processes. We also seek molecular biologists interested in developing high level expression systems in eukaryotes.

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Neurobiologists to develop assays and study proteins and receptors of nerve and glial cells.

Synergen offers competitive salaries, generous benefits, and the financial stability required for future development. Please send a **CV, bibliography, and references** to:



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Tanox Biosystems, a young biotech company, based near the Texas Medical Center, is actively recruiting innovative, dedicated scientists and biotechnologists in the following areas:

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Tanox Biosystems offers attractive compensation/rewarding packages, including equity participation programs. Candidates with Ph.D., M.D., M.S. or B.S. please send C.V. to Mr. John Blickenstaff, Director of Administration.



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Bausch & Lomb, Personal Products Division, an innovative leader in the HBA industry, currently has an exciting opportunity in their Rochester, New York facility for a Sr. Research Specialist with proficiency in Molecular Biology and Biochemistry.

The successful candidate will have a PhD in Microbiology or related areas with a research emphasis on the biological and chemical approaches to the fundamental problems in biochemistry or molecular biology. In this position, you will be responsible for research development support for lens care eye care, and new venture programs through enzymology, bio-organic chemistry, biological assay development, *in vitro* toxicity testing, pharmacokinetics, and other areas.

For confidential consideration, please send your resume and salary requirements to: Susan Niver Percy, Bausch and Lomb, Personal Products Division, 1400 N. Goodman Street, Rochester, NY 14609.

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Pfizer

For this key senior management position we ideally need someone in their mid to late thirties with post-doctoral research experience in immunology, virology and/or cell biology, a commitment to drug discovery and a proven track record of innovation backed by publications.

POSITIONS OPEN

The Department of Pediatrics, Wright State University School of Medicine and the Children's Medical Center, Dayton, Ohio are seeking a third **GASTROENTEROLOGIST**. This is a full-time faculty position at the assistant professor level. Applicants must be licensable to practice medicine in Ohio; Board-eligible or certified in pediatrics and completing a 2- or 3-year fellowship in pediatric gastroenterology. The successful candidate will be capable of performing all common gastrointestinal procedures, conducting independent research in the areas of cholestatic liver disease or gastrointestinal transport and showing interest and skills in the teaching of medical students and residents. Applications received by 15 February 1988 will be considered; if the position is not filled therefrom, applications will be considered as received until the position is filled. Interested candidates should send curriculum vitae and references to: **Stephen L. Newman, M.D., Director, Division of Gastroenterology and Nutritional Support, Department of Pediatrics, Wright State University School of Medicine, The Children's Medical Center, One Children's Plaza, Dayton, OH 45404-1815.** *Wright State University School of Medicine and the Children's Medical Center are Affirmative Action and Equal Opportunity Employers.*

HEAD, Department of Veterinary Pathobiology. The School of Veterinary Medicine at Purdue University is seeking a Head for the Department of Veterinary Pathobiology. Candidates for this critical scientific leadership position in the School must have excellent scientific credentials, and a strong desire to be a leader in veterinary medical research and education. The School is embarking upon an ambitious effort to be properly positioned to meet the challenges that will face veterinary medical research, education and service in the 21st century. We invite applications from qualified individuals who understand that the future can be shaped by creative thought and bold action. Closing date for applications is 31 March 1988 or until a suitable candidate applies and the position is filled. Applicants should submit curriculum vitae and names of references along with a letter expressing their professional interests and goals to: **William W. Carlton, D.V.M., Ph.D., Chairman, VPB Head Search Committee, Department of Veterinary Pathobiology, School of Veterinary Medicine, Purdue University, West Lafayette, IN 47907.** *Purdue University is an Affirmative Action/Equal Opportunity Employer/Educator. Women and minority candidates are encouraged to apply.*

HEAD, Department of Pharmacology and Experimental Therapeutics. The Louisiana State University Medical Center, LSUMC in New Orleans is seeking a qualified individual to build an academically outstanding department. Experience in directing a highly original and competitive research program, as well as teaching and administrative expertise are essential. Address correspondence to: **John J. Spitzer, M.D., Chairman, Pharmacology Search Committee, Department of Physiology, LSU Medical Center, 1901 Perdido Street, New Orleans, LA 70112.** *LSUMC is an Equal Opportunity/Affirmative Action Employer.*

HARRINGTON CANCER CENTER IMMUNOLOGY POSITIONS

The Harrington Cancer Center, a non-profit, ambulatory treatment center located in Amarillo, Texas is expanding its research capability, and anticipates two positions in the area of molecular immunology. One position would be an upper level (equivalent to an assistant or associate professor) for an individual experienced in flow cytometry. This position would include responsibility for running the clinical flow cytometry laboratory in addition to initiating an independent research program. The second position would be for an individual at the post doctoral level, and would be for research in the area of monoclonal antibodies directed against B cell tumors. These individuals will join an already established immunology group at the Harrington Center, The Texas Tech Regional Academic Health Sciences Center and the Amarillo Veterans' Administration Hospital.

To apply for these positions, please send curriculum vitae to:

**Dr. K. John Morrow, Jr.
Department of Biochemistry
Texas Tech University Health Sciences Center
Lubbock, TX 79430**

POSITIONS OPEN

INSECT TOXICOLOGY/PHYSIOLOGY, ASSISTANT PROFESSOR. Ph.D. required. Available: spring 1988. Research to identify, characterize, and exploit vulnerable physiological/biomedical systems in insects. Advanced cellular/molecular techniques required. Teach insecticides and specialty graduate course. Application deadline: 1 March 1988 or until suitable candidate is found. Submit letter of application, curriculum vitae, transcripts, research goals statement, publications, names and addresses of three references to: **Dr. Eldon E. Ortman, Head, Department of Entomology, Purdue University, West Lafayette, IN 47907.**

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LIBRARIANS SUBJECT CATALOGER POSITIONS PHYSICAL AND LIFE SCIENCES GS-9 (\$22,458 to \$29,199) AND GS-11 (\$27,172 to \$35,326) THE LIBRARY OF CONGRESS WASHINGTON, DC 20540

The Library of Congress is currently accepting applications for subject catalogers in the physical or life sciences. Positions minimally require at the GS-9 level, a bachelor's degree in a physical or life science, and a Master's degree in either library science (preferred) or in a relevant physical or life science. Comparable experience may also be qualifying. Reading knowledge of German and a second modern European language is also required.

Positions have promotion potential to the GS-12 grade level (\$32,567 to \$42,341), but will initially be filled at the GS-9 or GS-11 grade level depending on applicant qualifications. Advancement to the GS-12 level is possible within one to two years. Interested candidates should submit a Standard Form 171, Application for Federal Employment, to: **The Library of Congress, Employment Office, 101 Independence Avenue, S.E., Room LM-107, Washington, DC 20540.** Vacancy Announcement 70892 (if applying for the physical sciences position) or Vacancy Announcement 70899 (if applying for the life sciences position) no later than 29 February 1988. Applicants who wish to file for both positions must submit two applications. Copies of the vacancy announcements and application forms may be obtained by calling: **202-287-5620.** *U.S. citizenship required.*

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Tenure-track position available in fall 1988. Teaching and research interests in the animal sciences required. We are seeking a person who is experienced in teaching at the undergraduate level and who has demonstrated the use of the experimental approach to answer significant questions concerning cells and/or organelles at the molecular level. The appointee will develop upper level courses in molecular biology with appropriate laboratory components for which he/she will be responsible. This appointment should be especially attractive to candidates with a solid disciplinary background, who desire to participate in a strong but small academic department and who wish to pursue basic and applied research of relevance to animal systems. Significantly, candidates should be well versed in attracting external funding.

Qualifications: Ph.D. required. Salary and rank: Commensurate with qualifications and experience. Candidates should submit a letter of application, a current résumé, three letters of recommendation, all college/university transcripts, evidence of undergraduate teaching effectiveness, research interests and plans, and copies of publications where he/she contributed to the design and completion of the project to:

**Dr. J. L. Harrison, Chairman
Department of Biology
Lincoln University
Lincoln University, PA 19352**

This position will be open until filled. Interviews are likely to begin early in January 1988.

Lincoln University is an Equal Opportunity/Affirmative Action, Title IX Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

MOLECULAR BIOLOGY POSTDOCTORAL POSITION

A position is available immediately to join a laboratory investigating the molecular biology of human lung cancer. Applicants should have a recent Ph.D. in molecular biology with a strong background in recombinant DNA technology. Projects will focus on the role of oncogenes and growth factors in tumor progression. Send curriculum vitae, thesis abstract, and names and addresses of three references to: **Dr. J. A. Roth, Box 109, M.D. Anderson Hospital and Tumor Institute, 1515 Holcombe Boulevard, Houston, TX 77030.** *Equal Opportunity/Affirmative Action Employer.*

MOLECULAR GENETICIST (M.D. or M.D.—Ph.D.) wanted as Chief of new Genetics Division in the Department of Pediatrics of Case Western Reserve University School of Medicine at Rainbow Babies and Childrens Hospital. Incumbent will be expected to develop and recruit additional faculty for independent research program to complement present strength in epithelial cell biology, cystic fibrosis, immunology and neonatal metabolism and to interface with science department. Preference will be given to a clinically trained physician-scientist who will develop research training opportunities in molecular genetics within the Department of Pediatrics. Faculty rank/salary commensurate with experience. *Qualified women and minority group members are encouraged to apply.* Contact: **M. Berger, M.D., Ph.D., Department of Pediatrics, Case Western Reserve University School of Medicine, 2074 Abington Road, Cleveland, OH 44106.** Telephone 216-844-3237. *CWRU is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR GENETICIST YALE SCHOOL OF MEDICINE

The Department of Human Genetics invites applications for a position as an assistant professor, a tenure-track position with excellent laboratory facilities, in a stimulating environment. We seek candidates who have a Ph.D. or M.D. degree, a record of accomplishment in research, and exceptional potential for establishing an independent program of research. Candidates interested in developmental genetics are encouraged to apply; however, all highly qualified applicants will receive equal consideration. Applicants are invited to submit curriculum vitae, representative publications, a statement of research interests, and to arrange to have three letters of recommendation sent to:

**Dr. Charles M. Radding
Chairman, Faculty Search Committee
Department of Human Genetics
Yale University School of Medicine
P.O. Box 3333
New Haven, CT 06510**

Applications should be submitted before 31 March 1988. *Yale University is an Equal Opportunity/Affirmative Action Employer.*

OB/GYN FACULTY POSITION

The Department of Obstetrics and Gynecology, University of Oklahoma Health Sciences Center in Oklahoma City is seeking an individual with research interests in reproductive biology. The candidate must have academic training in reproductive biology, early gamete physiology, and andrology. Ph.D. required. Preference will be given to (i) individuals familiar with vitro fertilization techniques, especially in nonhuman primates, and (ii) individuals with at least a peripheral interest in reproductive immunology. The individual should be prepared to participate in student and resident teaching and assisting in research projects of students and residents. Candidates should be capable of interdigitating research efforts with clinical faculty as well as working independently on more basic projects.

Send curriculum vitae and bibliography:

**John I. Fishburne, Jr., M.D.
Professor and Chairman
Department of Obstetrics and Gynecology
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As an emerging leader in the development of biosensor applications for the food service and medical diagnostic industries, we are seeking a highly creative project director with a thorough understanding of immunoassay theories and techniques to contribute to our continued growth.

The successful candidate will have a Masters or a PhD in immunochemistry and a working knowledge of microcomputers and electronics. The ability to work independently and to manage small groups is also necessary, as is "hands-on" familiarity with product development for both OEM and end products.

This position offers an entrepreneurial challenge and excellent financial rewards. Located in suburban Bucks County, Pennsylvania, we provide a work environment conducive to creativity and growth.

To be considered for this position, please forward a resume to Marion Kohn, Personnel.



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LYMPHOKINE PROGRAM

A new biotechnology venture between Wadley Technologies Corp., a subsidiary of Wadley Institutes Cancer Center, and Phillips Petroleum was initially capitalized at \$5 million. The venture is centrally located to other Dallas medical and research institutions.

Research and development involve isolation and analysis of new human cytokine genes and proteins, creation of multifunctional cytokine chimeras and generation of human tumor and cytokine-specific monoclonal antibodies. Bacterial, yeast and animal expression systems are being utilized. Established lymphokine research program is complemented by large-scale fermentation capabilities at Phillips and Wadley Institutes and access to Granville C. Morton Cancer and Research Hospital at Wadley for human clinical trials of new anti-cancer and antiviral pharmaceutical products.

Outstanding opportunities are available for Research Assistants, Research Associates and Senior Scientists with excellent backgrounds in molecular biology, protein chemistry and immunology. Please send curriculum vitae and at least three references to:

**Dr. Arthur P. Bollon, President
Wadley Biosciences Corp.
9000 Harry Hines Blvd.
Dallas, TX 75235**

Risk Assessment Analyst (Toxicology)

Mobay Corporation, one of the largest manufacturers of agricultural and other petrochemical products, has an excellent position available at the corporate toxicology facility located near Kansas City.

Qualified candidates should possess a PhD in Toxicology or a related science and several years of experience in risk assessment or with toxicology studies. Additional experience with computer based risk assessment models and/or ABT certification is preferred.

Responsibilities include: review and evaluation of toxicology data for risk assessment for chemical exposure to humans and wildlife, preparation of cautionary statements for product labels and MSDS's, field and handle inquiries from external sources regarding toxicity of pesticides.

Position offers a competitive salary and comprehensive paid benefits package including complete relocation. Send curriculum vitae and salary history to: **Sam Sprayberry, P.O. Box 4913, Kansas City, Mo. 64120.**

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ABSTRACT DEADLINE: APRIL 1, 1988

For further information, contact the



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NEW

**MULTIDEPARTMENTAL GRADUATE
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The Graduate School at BAYLOR COLLEGE OF
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**Postdoctoral Visiting Scientists positions
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As part of our expanding activities in Viral Vaccine Research and Development, the Department of Virus and Cell Biology at the Merck Sharp and Dohme Research Laboratories is able to offer several career research opportunities. Laboratory studies will encompass the immunobiology of the human immunodeficiency virus (HIV) and the antigenic analysis of candidate vaccines.

We envision a long-term commitment to AIDS-related research and we invite exceptional scientists at the Ph.D. and M.S. levels to join this program. While previous laboratory experience with HIV is highly desirable, all applicants with significant experience in up-to-date immunological techniques, cell culture methodology and/or virological techniques will be seriously considered.

An excellent salary and a superb benefits program accompany these positions at our modern, state-of-the-art research facilities located in suburban Philadelphia, Pennsylvania.

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MOLECULAR VIROLOGISTS, VIRAL-IMMUNOLOGISTS, PHYSICIANS

The Acquired Immunodeficiency Syndrome (AIDS) Program of the National Institute of Allergy and Infectious Diseases (NIH) is seeking MOLECULAR VIROLOGISTS, VIRAL-IMMUNOLOGISTS, and PHYSICIANS to join its Prevention Branch. The Branch is responsible for planning and directing a federal program of extramural research projects for the development of vaccines and chemoprophylactic agents for prevention of AIDS and its associated opportunistic infections. Major efforts presently underway include molecular studies of HIV, antigenic variation, correlates of immunity, reagent development, animal models, government-industry-academia cooperative vaccine groups, vaccine adjuvants, clinical trials of AIDS vaccines, international collaborative efforts, technology transfer and information exchange, data coordination, social and public policy issues related to AIDS vaccine testing. Background in molecular biology, immunology, virology, clinical trials design, clinical epidemiology, or other related discipline is desirable. Experience with HIV or simian immunodeficiency virus (SIV) would be helpful. The salary range is \$38,727 - \$59,488 and will be fixed based on the qualifications of selected candidates. Physicians may be paid at slightly higher rates; those selected may be eligible for a Physicians Comparability Allowance (PCA) in addition to base salary.

U.S. citizenship required. Send curriculum vitae, bibliography and names of references to Dr. Wayne C. Koff, NIAID/AIDS Program, 5333 Westbard Avenue, Westwood Building, Room 7A-04, Bethesda, Maryland 20892.

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MOLECULAR BIOLOGIST

Los Alamos National Laboratory, a worldwide leader in technological and scientific research, has an opportunity in its GenBank Program for a Molecular Biologist with superb leadership skills. Your primary responsibility will be supervising the annotation of nucleic acid sequences for the database. You will also determine standards for the quality and quantity of annotation and select domains for unifying curatorial work. In addition to being part of the GenBank team, you will monitor the activities of the annotation staff and perform independent and/or joint research with members of the Theoretical Biology and Biophysics Group in several challenging areas.

To qualify, you must have a PhD in Molecular Biology or a related discipline and research experience, preferably in DNA sequencing and related methodologies. A background that includes supervisory experience and experience using computers and biology databases is desired.

We offer the selected candidate a stimulating professional environment, along with an outstanding compensation and benefits package. For confidential consideration, please send a resume to: Richard Garcia (MS P280), Personnel Services Division 80009-E, Los Alamos National Laboratory, Los Alamos, NM 87545.

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University of California

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MOLECULAR GENETICIST. Tenure-track assistant professor. Available August 1988. Requirements: Ph.D. with strong background in research on mutagens and carcinogens in eukaryotic or prokaryotic organisms. Postdoctoral experience preferred. Duties: develop an externally funded research program, supervise M.S. research, and teach graduate and undergraduate courses. Send curriculum vitae, list of graduate courses, description of research interests, and three letters of recommendation by 1 March 1988 to: **Dr. Douglas Wartzok, Biological Sciences, Indiana University-Purdue University, Fort Wayne, IN 46805-1499.** *An Affirmative Action/Equal Opportunity Employer.*

MARYLAND BIOTECHNOLOGY INSTITUTE AGRICULTURAL BIOTECHNOLOGY CENTER (ABC) THE UNIVERSITY OF MARYLAND MOLECULAR VIROLOGIST/ IMMUNOLOGIST

The center is located on the College Park campus and is in the newly initiated Maryland Biotechnology Institute. Appointee will hold a tenure-track position in the Center and joint appointment and laboratory facilities in the School of Veterinary Medicine within the University, and will participate in student training. ABC will bring together researchers with a primary focus on the molecular biology of plant and animal protection from the University, the U.S.D.A. Beltsville, and industry in the Washington Metropolitan Area. Successful candidate will be expected to develop a strong research program preferably in the area of host resistance and diagnosis of avian infectious diseases. Appointee should have experience in recombinant DNA technology and will be expected to develop genetic or immunological procedures for intervention in or prevention of avian diseases.

Applicants must have Ph.D. and postdoctoral experience and all positions are at the junior level. Salary is commensurate with qualifications. Submit a letter stating career goals, proposed research, résumé, and four letters of recommendation by 1 March 1988 to: **Chairman of Search Committee (S. B. Mohanty, Veterinary Medicine) c/o Agricultural Biotechnology Center, H.J. Patterson Hall, The University of Maryland, College Park, MD 20742.**

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THE PLAYFAIR NEUROSCIENCE UNIT AT THE UNIVERSITY OF TORONTO AND THE TORONTO WESTERN HOSPITAL INVITES APPLICATIONS FOR A NEUROSCIENTIST

Applications are invited for a neuroscientist within the Playfair Neuroscience Unit at the University of Toronto and the Toronto Western Hospital. The research laboratory will be located within the Playfair Neuroscience Unit at the Toronto Western Hospital.

Candidates should have a Ph.D. or equivalent with two or more years of postdoctoral training. Preference will be given to applicants with developed skills in neurochemistry. Experience in immunology, molecular genetics, or neuropharmacology would be advantageous. The successful candidate will be expected to develop an independent research program with the potential for collaboration with investigators working in areas such as neuropharmacology, immunology, trauma, and motor systems. The successful candidate should be eligible for cross-appointment in a suitable Department, such as biochemistry.

Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be forwarded to:

Dr. Charles Tator
Chairman, Search Committee
Playfair Neuroscience Unit
Toronto Western Hospital
Edith Cavell Wing, Room 4-034
399 Bathurst Street
Toronto, Ontario M5T 2S8

Deadline for receipt for applications is 15 May 1988. *In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

POSITIONS OPEN

NEUROSCIENTIST—NIH-funded position available immediately, at the postdoctoral or research assistant professor level, to study mechanisms of development and plasticity in the rodent somatosensory system. Will use deafferentation, tissue culture, and/or transplant procedures in combination with state-of-the-art anatomical, physiological, biochemical, and computerized image analysis techniques. Opportunities exist for collaboration within a large multidisciplinary group of investigators. Minimal experience necessary. Salary and rank negotiable. Send curriculum vitae and names of references to: **Dr. Mark Jacquin, Department of Anatomy and Neurobiology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.** *Equal Opportunity/Affirmative Action Employer.*

OVARIAN PHYSIOLOGIST ASSISTANT PROFESSOR with term to establish independent research in follicle/ovum development, IVF. Postdoctoral experience in follicle development, echography, IVF or gamete biology. Two years, renewable. Send curriculum vitae and the names of three referees to:

B. D. Murphy
Reproductive Biology Research Unit
Department of Obstetrics and Gynecology
University of Saskatchewan
Saskatoon, SK, Canada S7N 0W0

In accordance with Canadian immigration requirements, applications of Canadian citizens and landed immigrants will be given priority.

PALEOLITHIC ARCHAEOLOGIST: The Department of Anthropology and the Doctoral Program in Anthropological Sciences at SUNY Stony Brook seek a paleolithic archaeologist to fill a tenured or tenure-track position, preferably at the senior level, beginning next academic year.

Candidates should possess a strong record in publication and research including archaeological field work, with proven experience in teaching at both the graduate and undergraduate level. Salary commensurate with rank. Applicants should send curriculum vitae and names of three references by 15 March 1988 to: **Chair, Search Committee, Department of Anthropology, SUNY Stony Brook, NY 11794-4364.** *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK#1B.*

PHYSICAL CHEMIST—Williams College has an opening for a tenure-track position in physical chemistry for fall 1988 (Ph.D. required; postdoctoral experience preferred). Applicants should have a strong commitment to both teaching and research. Teaching assignments will encompass physical chemistry courses and other courses in the chemistry curriculum consistent with the person's background and interests. A semester teaching load normally includes complete responsibility for one course with laboratory and supervision of senior research projects. Williams College is a highly selective, coeducational, liberal arts institution of approximately 165 faculty, 1950 undergraduates, and 25 to 35 chemistry majors each year, located in northwestern Massachusetts. The Chemistry Department is accredited by the ACS, and has excellent facilities for teaching and research. Send résumé, undergraduate and graduate transcripts, description of research interests for undergraduates, and names of three references to: **Dr. James F. Skinner, Chairman, Department of Chemistry, Williams College, Williamstown, MA 01267,** by 11 March 1988. *Equal Opportunity/Affirmative Action Employer. We are especially interested in identifying minority and women candidates.*

PHYSIOLOGIST: Assistant professor start fall 1988. Teach introductory anatomy and physiology, advanced animal and human physiology, direct graduate research. Commitment to teaching required, research encouraged. Earned doctorate, physiology emphasis preferred. Curriculum vitae, transcripts, three letters of recommendation by 1 March 1988 to: **James Parry, Chair, Department of Biology and Microbiology, University of Wisconsin-La Crosse, La Crosse, WI 54601.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

Ph.D. with interest in urology research for clinical and basic science application. Should have physiology, biochemistry, or pharmacology background. Send curriculum vitae to: **Joseph R. Drago, M.D., Chief, Division of Urology, 456 West 10th Avenue, Columbus, OH 43210.**

Ph.D. CYTOGENETICIST

Brooklyn's major genetic center is inviting applications from individuals to conduct research on genetics of fertility and sterility and also collaborate on other ongoing projects. We are a major affiliate of SUNY Health Science Center.

We offer excellent salary and fringe benefits. Please contact: **Dr. Ram S. Verma, Chief Division of Genetics, 718-780-1428.**



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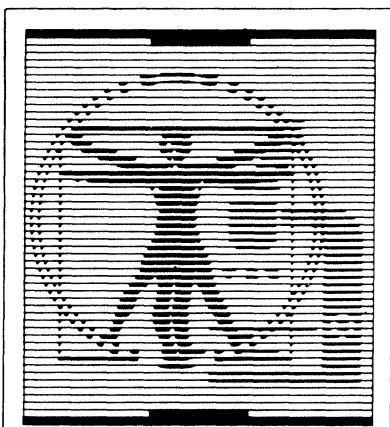
Recruiting Coordinator
Plant Cell Research Institute Inc.
6560 Trinity Court
Dublin, CA 94568

PCRI Inc. is an Equal Opportunity Employer/Affirmative Action Employer.

PLANT PHYSIOLOGIST. The Department of Biology at Trinity University invites applications for a tenure-track faculty position at the assistant professor level available August 1988. Candidates must have a Ph.D. in biology with a preference given to persons with a speciality in plant physiology or plant cellular and molecular biology. Duties include the development of a lecture and laboratory course in the area of speciality, participation in core courses for majors, and academic advising. The successful candidate will be expected to establish a vigorous research program in one of the following areas: cellular/molecular biology, developmental genetics, comparative physiology, embryogenesis, or ecological physiology of plants. Salary will be commensurate with education and experience. Trinity University is a private, primarily undergraduate 4-year liberal arts and sciences institution of 2600 students. Applicants should send curriculum vitae, summary of research experience and interests, and names of three references to: **Professor Thomas L. Koppenheffer, Chairman, Department of Biology, Trinity University, San Antonio, TX 78284.** Application deadline is 7 March 1988. *Trinity University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available to study intracellular transduction mechanisms and regulation of gene expression in intestinal endocrine and nerve cells. Project emphasis on nutrient and transmitter modulation of peptide-containing cells in culture, studying intracellular cAMP, calcium and phosphoinositides. Send curriculum vitae and three references to: **Dr. Diane Barber, Department of Surgery (Anatomy), Yale University School of Medicine, PO Box 3333, New Haven, CT 06510.** *Yale is an Affirmative Action/Equal Opportunity Employer.*

BIOMEDICAL RESEARCH



SCIENTISTS

Program Resources, Inc. (PRI) is at the forefront of biomedical research, paving the way for new programs and new discoveries at the National Cancer Institute — Frederick Cancer Research Facility, Frederick, MD.

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This laboratory supports the *In Vitro* Cell Line Screening Project which

provides research efforts to screen anticancer agents and drugs. The successful candidate will have the opportunity to collaborate with other scientists in the development of new *in vitro* assays and newly identified anticancer agents; and will provide management of the laboratory and staff.

The scientist we seek should have a PhD degree with previous experience in the areas of pharmacology *in vitro* tissue culture techniques and interest in computerized data handling.

PRI will provide successful candidates with an excellent compensation and benefits package, including relocation assistance. For consideration, please send your resume and names of three references to: Personnel Manager, Program Resources, Inc., NCI-Frederick Cancer Research Facility, P.O. Box B, Frederick, MD 21701. An equal opportunity employer, M/F.



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We offer a competitive salary and excellent benefits in an environment that promotes both personal and professional growth. Please send your resume, including salary history and requirements, to: Mr. Al Aronson, Dept. 434, The Pharmaceuticals Division, CIBA-GEIGY Corporation, 556 Morris Avenue, Summit, NJ 07901. We are an equal opportunity employer m/f/h/v.

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BS or MS level positions available. Knowledge of autonomic pharmacology and experience with cardiorespiratory and blood flow monitoring is desired.

ELECTROPHYSIOLOGIST

Ph.D. in biomedical science and 1-2 years of postdoctoral laboratory experience with electrophysiological techniques is required. The primary function will involve establishing electrophysiologic models for the assessment of the action of local anesthetics on neuronal activity.

BIOCHEMICAL PHARMACOLOGISTS

BS, MS or recent Ph.D. in a life science with receptor binding experience. Projects will include opiate and cholinergic receptor studies and cholinesterase inhibition assays.

At Anaquest you will enjoy our competitive compensation package which includes excellent salaries and comprehensive benefits as well as an environment filled with talented individuals. For consideration please send your resume to: Anaquest, Human Resources, Personnel Supervisor, 100 Mountain Avenue, Murray Hill, NJ 07974. An equal opportunity employer.

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POSITIONS OPEN

POSTDOCTORAL POSITION: A postdoctoral position is available immediately in the Biomedical NMR Center of the University of Arkansas for Medical Sciences. The ideal candidate should have a Ph.D. in a basic science and previous NMR experience. The laboratory has a General Electric CSI-4.7T/33-cm imaging/spectroscopy system, a GN-300WB high-resolution NMR spectrometer and liberal access to a GE Signa clinical MRI system with spectroscopy. The laboratory has projects in imaging of metabolites, clinical MR spectroscopy of ^{31}P , ^1H and ^{19}F , (in vivo and in vitro), Li-7 imaging and spectroscopy in vivo, MRI of materials and other areas. Salary is \$21,000 per year. Interested individuals should send a résumé and names of three references to: **Richard A. Komoroski, Ph.D., Director, NMR Laboratory Slot #582, University of Arkansas for Medical Sciences, 4301 West Markham, Little Rock, AR 72205.**

POSTDOCTORAL POSITION

Immediate opening for recent Ph.D. to study mechanism of tumor cell proliferation. Studies involve protein purification, characterization, and site identification in tissue using immunofluorescence microscopic technique. Background in protein biochemistry techniques is essential. Experience in tissue culture technique and exposure to fluorescence and laser spectroscopy techniques are desirable. The project, supported jointly by the Baylor Research Foundation and NIH grants, will be under the supervision of **Drs. George T.-I. Lin and Robert M. Dowben**. This position provides excellent training in the state of the art fluorescence spectroscopy techniques for candidates who already have a solid biochemistry background and desire to expand their expertise in biophysical techniques. Send curriculum vitae and three letters of reference to: **Postdoctoral Position Baylor Research Foundation, 3500 Gaston Avenue, Dallas, TX 75246. The Baylor Research Foundation is an Affirmative Action/Equal Employment Opportunity Employer.**

POSTDOCTORAL POSITION available for at least 2 years beginning in May 1988 to study the electron transfer reactions of cytochrome c with cytochrome oxidase, the cytochrome bc₁ complex, and photosynthetic reaction centers. The techniques used include 500-MHz NMR, laser rapid kinetics, and site-specific modification. Send curriculum vitae and names of three references to: **Dr. Frank Millett, Department of Chemistry, University of Arkansas, Fayetteville, AR 72701. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available: To study mechanisms of systemic autoimmune disease. Research involves hybridomas, cloning genes encoding antigens and antibodies, aspects of lymphocyte regulation. Experience in molecular biology preferred. Send curriculum vitae, names, addresses, and telephone numbers of three references to: **Dr. Keith B. Elkon, Hospital for Special Surgery/Cornell University Medical Center, 535 East 70 Street, New York, NY 10021.**

POSTDOCTORAL POSITION available to study biochemical basis for antiviral activity of novel nucleoside analogs. Experience in enzymology, nucleic acid biochemistry and cell culture is desirable. Send résumé and three letters of reference to: **Dr. W. Prusoff, Department of Pharmacology, Yale University School of Medicine, New Haven, CT 06510. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available October 1988 to study the biochemical and mechanical events associated with regulation of vascular smooth muscle. On-going projects in the laboratory include the use of isolated contractile proteins, detergent skinned and intact fibers, and hind-limb perfusion. Successful candidate will be expected to develop an independent project complementary to the goals of the laboratory. Send curriculum vitae, with references, to: **Dr. Robert S. Moreland, Bockus Research Institute, Graduate Hospital, 415 South 19th Street, Philadelphia, PA 19146. Equal Opportunity Employer M/F/H/V.**

POSITIONS OPEN

POSTDOCTORAL POSITION available for a self-motivated individual to conduct research on binding sites and receptors of neuropeptides. Successful candidate will work with peptide chemists and biologists. Ph.D. in a related field and previous experience in receptor assay is required. Experience in in vitro bioassays or protein isolation is desirable. Apply with three references, salary requirements, and available date to: **A. Balasubramaniam, Ph.D., Department of Surgery, University of Cincinnati College of Medicine, Cincinnati, OH 45267.**

POSTDOCTORAL POSITION available immediately to study effects of anesthetics on sympathetic nervous system and cardiovascular physiology. Preference will be given to applicant with prior experience in either HPLC or enzymatic catecholamine analysis. Send curriculum vitae and Application for Federal Employment (SF 171) to: **Dr. Sheila M. Muldoon, c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814.**

POSTDOCTORAL POSITION

Available in 1988 to study the biochemistry of polyomavirus infection of mammalian cells. Current research emphasis deals with the structure and function of the virion structural proteins. A combination of biochemical, immunological, and molecular genetic approaches will be used in these studies. Individuals should send curriculum vitae and names of three references to: **Dr. Richard Consigli, Section of Virology and Oncology, Division of Biology, Manhattan, KS 66506. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION

Postdoctoral position in neurobiology/endocrinology is available January, 1988 to study electrophysiological correlates of secretion by adrenocortical tissue. Studies will focus on changes in ion conductance (Ca^{2+} , K^{+} , etc.) in adrenocortical cells modulated by aldosterone secretagogues (angiotensin II, ACTH, and K^{+}). Experience with intracellular recording and patch clamp techniques is highly desirable. Send résumé and three references to: **Dr. M. Carter Cornwall, Department of Physiology, Boston University School of Medicine, Boston, MA 02118.**

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POSTDOCTORAL POSITION

Postdoctoral position available to study *Drosophila* oncogene homologs and acetylcholine receptor. Applicants are sought with an interest in studying the functions of these genes using molecular and genetic approaches. Experience in either molecular biology or *Drosophila* is desirable. Please send curriculum vitae and names of three references to: **Samuel C. Wadsworth, Ph.D., c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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POSTDOCTORAL POSITION available to conduct basic research on the influence of pheromones on reproductive events in mice or voles from either a neuroendocrine/endocrine or natural history approach. Twelve-month appointment with one renewal possible, available 1 June 1988. Send curriculum vitae and names of three references to: **Dr. J. G. Vandenbergh, Department of Zoology, North Carolina State University, Raleigh, NC 27695-7617 by 15 March 1988.**

POSTDOCTORAL POSITION—HUMAN MOLECULAR GENETICS. Molecular analysis of oxidant-induced human somatic mutations, and isolation/construction of mutants in human phagocyte respiratory burst pathway. Experience with recombinant DNA techniques, cell culture, and gene transfer/expression in human cells highly desirable. Position available July 1988 to U.S. citizen/resident alien. Send curriculum vitae and names of three references to: **Dr. Ray Monnat, Department of Pathology SM-30, University of Washington, Seattle, WA 98195. University of Washington is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately and later for the study of the biochemistry/biophysics of muscle proteins and the mechanism of force-development in muscle contraction. Salary dependent on experience and background. Persons interested in muscle protein: function studies should contact: **Dr. William F. Harrington, Department of Biology, Johns Hopkins University, 3400 North Charles Street, Baltimore, MD 21218.**

Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY to study on NIH grants the relationship between insulinlike growth factor gene expression and (i) the development of the nervous system, (ii) nerve regeneration, (iii) clinically important neuropathies, (iv) the molecular mechanism of axon formation. Submit curriculum vitae and names of three references to: **Dr. Douglas N. Ishii, Physiology Department, Colorado State University, Fort Collins, CO 80523. CSU is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION IN NEUROBIOLOGY: Available immediately to study the role of cell adhesion molecules in axon guidance and nerve regeneration. The applicant should be a recent Ph.D. with a strong background in membrane protein biochemistry or cell biology. Send curriculum vitae, summary of research experience, and three letters of reference to: **Dr. Vance Lemmon, Department of Neurobiology, Anatomy and Cell Science, University of Pittsburgh, Pittsburgh, PA 15261. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS IN BIOCHEMICAL TOXICOLOGY AT UNIVERSITY OF CALIFORNIA BERKELEY

Postdoctoral positions are available immediately for studies on benzene and styrene metabolism and exposure assessment. Projects involve studies of the pharmacokinetics and metabolic activation of benzene and styrene metabolites; developing immunoassays for assessing exposure to these toxicants and postlabeling of DNA adducts. Applicants with expertise in either HPLC and xenobiotic metabolism; monoclonal antibody development; or ^{32}P -postlabeling are preferred. Salary range: \$17,000 to \$26,000. Please send résumé and names and addresses of three references to: **Dr. Martyn T. Smith, School of Public Health, 322 Warren Hall, University of California, Berkeley, CA 94720.**

The University is an Equal Opportunity/Affirmative Action Employer.

APPOINTMENT POSITION IN MOLECULAR BIOLOGY CLEVELAND CLINIC FOUNDATION

The newly established Department of Molecular Biology is seeking applications for postdoctoral positions in the areas of regulation of RNA virus gene expression (Amiya K. Banerjee) and biochemical and biological studies of protooncogenes action (Dennis W. Stacey). Experience in recombinant DNA technology and biochemical and tissue culture techniques desirable. Please send curriculum vitae, statement of research interests and names of three references to:

**Dr. Amiya K. Banerjee
Department of Molecular Biology
Research Institute
The Cleveland Clinic Foundation
9500 Euclid Avenue
Cleveland, OH 44106**

POSTDOCTORAL POSITIONS MOLECULAR VIROLOGY JAMES N. GAMBLE INSTITUTE OF MEDICAL RESEARCH

The Divisions of Clinical and Molecular Virology have positions available to work on human rotaviruses and human parainfluenza three virus programs. These positions are for recent Ph.D. recipients trained in molecular biology/virology. Salary: \$24,000 to \$28,000, will be commensurate with experience. Send curriculum vitae and names of references to: **Mark S. Galinski, Ph.D., Division of Molecular Virology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219.**

**FACULTY POSITION—
NUCLEAR ENGINEERING
and
DIRECTOR—MICHIGAN MEMORIAL
PHOENIX PROJECT**

The University of Michigan invites applications for a position which combines a faculty appointment in the Department of Nuclear Engineering and the Directorship of the Michigan Memorial Phoenix Project (MMPP). The Department of Nuclear Engineering administers undergraduate programs in Nuclear Engineering and Engineering Physics, and awards graduate level degrees in Nuclear Engineering and Nuclear Science. It has a present faculty size of 16 and a current enrollment of 100 graduate students. The Michigan Memorial Phoenix Project is a major unit, reporting administratively to the Office of the Vice President of Research. MMPP carries out and supports research in the peaceful applications of nuclear energy across broad disciplinary and interdisciplinary fields. The unit is also responsible for the operation and maintenance of a number of facilities, including the 2 MW Ford Nuclear Reactor. MMPP has a staff of 20 and an annual budget of about \$650,000. The Director is expected to provide creative leadership and to administer and guide the future of the unit to ensure its excellence in research, education and service. The term of the Director is five years on a renewable basis.

Successful applicants must have an established record of achievements in fields of research of relevance to both the Phoenix Project and the Department of Nuclear Engineering, a strong interest and aptitude in teaching and the ability to lead and administer research activities that exploit the excellent facilities existing in both units. The appointment will be at an academic rank appropriate to the candidate's background and experience.

Nominations and applications should be addressed to:

Helen Lum
Administrative Associate
Michigan Memorial Phoenix Project
The University of Michigan
Ann Arbor, MI 48109

Applications should include a curriculum vitae and the names of three references.

The University of Michigan is an Equal Opportunity Employer and is committed to an aggressive Affirmative Action effort.

**POSTDOCTORAL POSITION
IN
PROTEIN SEQUENCING
AND
MOLECULAR CLONING**

The Developmental and Metabolic Neurology Branch, National Institute of Neurological and Communicative Disorders and Stroke, National Institutes of Health, Public Health Service, invites applications for an Intramural Research Training Award fellowship. The candidate will join a molecular biology group which is molecularly cloning DNAs which code for enzymes involved in inherited lysosomal storage disorders. The candidate will sequence peptides derived from enzymes, and will use standard recombinant DNA techniques to fully characterize the corresponding genes. Experience in chromatographic and electrophoretic protein purification and sequencing is highly desirable. Candidates must be U.S. citizens or permanent residents, must have a doctoral degree or the equivalent, and not have more than 3 years of postgraduate experience when the fellowship begins. Salary is \$20,000 to \$23,000 per year, group health insurance is available. Further appointment requirements may be obtained by calling Ms. Chris Steyer at (301) 496-6334. The position is located in Bethesda, Maryland. Interested candidates should send **curriculum vitae**, a brief statement of research interests, and the names of three references to: Dr. Roscoe O. Brady, DMNB, NINCDS, NIH, 9000 Rockville Pike, Building 10, Room 3D-04, Bethesda, MD 20892; Telephone (301) 496-3285.

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Please send your resume to ALZA Corporation, Employment Department, 950 Page Mill Road, P.O. Box 10950, Palo Alto, CA 94303-0802. We are an equal opportunity employer.

alza

PhD Postdoctoral Fellowships In New Drug Development



An equal opportunity employer

Pfizer Pharmaceuticals, a leader in the health-care industry, announces this new and exciting 1-2 year program for individuals trained in pharmacology, pharmacokinetics or toxicology. As a member of a multidisciplinary project team within the Department of Clinical and Scientific Affairs at our New York City world headquarters, you will have the unique opportunity to apply basic scientific principles to the clinical development of new drugs in the following areas:

Pharmacology—To review preclinical data on potential new drug acquisitions; as well as in the design of preclinical experiments for existing projects. You will be expected to collaborate with leading scientific researchers from various fields and be trained in pharmacological principles as applied to clinical development of new drugs.

Pharmacokinetics—To participate in analysis of PK data from preclinical/clinical studies of potential new drugs. You will be trained in the design of new studies for existing projects and in data interpretation.

Toxicology—To analyze and interpret toxicologic data from new drugs with regard to the clinical environment. You will be trained in the various types of studies needed, their design and implementation for regulatory submission.

To qualify, you must have completed all requirements for the doctoral degree (PhD). We offer excellent salary and benefits and a stimulating world-class work environment. Interested candidates should address their questions and/or resumes to: Ms. Marjorie Feld, Senior Personnel Associate, Pfizer Pharmaceuticals, 235 East 42nd Street, New York, NY 10017; (212) 573-3259.

POSITIONS OPEN

POSTDOCTORAL POSITION is immediately available to study human disorders of vision-oculomotor systems. The position is sponsored by the Department of Neurology, Stanford University. Candidates with a Ph.D. and a research background in oculomotor, vision psychophysics, or motor control systems preferred. Send résumé and three letters of reference to: **John Hotson, M.D., Department of Neurology, Santa Clara Valley Medical Center, 751 South Bascom Avenue, San Jose, CA 95128. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS

Available immediately for recent Ph.D.'s with strong background in immunology/cell and molecular biology. Research will involve studies on cellular and molecular mechanism of human B cell differentiation. This area includes (i) biochemical purification and molecular cloning of various factors; (ii) regulation of lymphokine gene expression; (iii) functional characterization of growth factor receptors.

Salary is negotiable. The interested candidate is encouraged to send curriculum vitae to:

Dr. Y. S. Choi
Director, Laboratory of Cellular Immunology
Alton Ochsner Medical Foundation
1520 Jefferson Highway
New Orleans, LA 70121

POSTDOCTORAL POSITIONS, one available immediately, the other July 1988. Biochemical aspects of the regulation of peptide release in the brain; emphasis on copper-prostaglandins-cAMP-opioids interactions. Molecular aspects of copper uptake/release in the brain and their regulation. Salary based on experience. Send curriculum vitae and three references to: **Dr. A. Barnea, Department of Obstetrics/Gynecology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235. An Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS are available immediately for 3 years in neurobiology of glycoconjugate antigens and cellular interactions during developing nervous system. A background in carbohydrate biochemistry, neurochemistry, and/or cell biology preferred. Joint appointment at Harvard Medical School. Send curriculum vitae to: **Dr. Firoze Jungalwala, Department of Biochemistry, Eunice Kennedy Shriver Center, 200 Trapelo Road, Waltham, MA 02254, or call: 617-642-0136.**

POSTDOCTORAL POSITIONS:

To study mechanism of signaling via insulin receptor kinase. Experience in recombinant DNA or monoclonal antibody technology required. Send curriculum vitae and names of three references to: **J. Avruch, Chief, Diabetes Unit, Massachusetts General Hospital, Boston, MA 02114.**

POSTDOCTORAL POSITIONS are available at the National Heart, Lung, and Blood Institute, National Institutes of Health, Public Health Service to study the biochemistry and cell biology of the cytoskeleton and motility systems of non-muscle cells. Current activities include the regulation of actin polymerization by actin-binding proteins, and the structure, enzymatic activity and cellular function of actin-associated and microtubule-associated translocators. These positions have a salary range of \$20,000 to \$37,997 per annum. Salary will be commensurate with experience. These positions are located on the National Institutes of Health (NIH) campus in Bethesda, Maryland. Please send curriculum vitae and three letters of recommendation to: **Dr. Edward D. Korn, Chief, Laboratory of Cell Biology, National Heart, Lung, and Blood Institute, 9000 Rockville Pike, Building 3, Room B1-22, Bethesda, MD 20892. An Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION available to study mechanisms of chemical-ly-induced lungs and liver injury and the role of blood cells (neutrophils, platelets) in mediating injury. Background in cell biology/biochemistry desirable. Submit résumé, research interest, graduate transcripts, and names of three references to: **Dr. Robert A. Roth, Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI 48824.**

MSU is an Affirmative Action/Equal Opportunity Employer

USDA Human Nutrition Research Center (HNRC) on Aging at Tufts University, **POSTDOCTORAL/RESEARCH ASSOCIATE** in excellent research environment—Ph.D. in nutrition, biochemistry, or immunology to study the focus on the role of nutrients on the aging immune system in human and animal models. Send résumé and three letters of reference to: **Dr. Simin Meydani, HNRC—5th floor, 711 Washington Street, Boston, MA 02111. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE position available immediately to study the role of polymorphic gene sequences in human genome dynamics and transcriptional regulation. The project involves cDNA library screening and subcloning, DNA sequencing, genomic RFLPs and RNA transcript analyses. Applicants should have a Ph.D. with prior experience in molecular and/or cellular biology. Starting salary is \$21,370 per annum. Send letter of application, curriculum vitae, and names of three references to: **Dr. Phillip R. Musich, Box 19, 930A, Department of Biochemistry, Quillen-Dishner College of Medicine, East Tennessee State University, Johnson City, TN 37614.** Application deadline is 1 March 1988. *Women and minorities are encouraged to apply. ETSU is an Equal Opportunity Employer and employs only U.S. citizens and aliens authorized to work in the United States.*

POSTDOCTORAL RESEARCH ASSOCIATE

A postdoctoral research position is available immediately. Strategically located in northern New Jersey near New York City. Applicants should have a Ph.D. and experience in: mammalian tissue culture, cell biology, assay development and monoclonal antibody development and production. Positions are available for 1 or 2 years. Applicants should forward a curriculum vitae along with three letters of reference to: **Box 22, SCIENCE.** Salary is commensurate with experience. Closing date for all applications is 31 March 1988.

POSTDOCTORAL RESEARCH ASSOCIATE

Position available to study electrophysiology including intracellular recording, single fiber recording and biochemical pharmacology of gastrointestinal smooth muscle and nerves. Ph.D. degree with prior research experience desirable. Excellent research facilities. Send curriculum vitae and names of three references to: **Raj K. Goyal, M.D., Gastroenterology Division, Department of Medicine, Beth Israel Hospital, Boston, MA 02215. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for individuals holding a doctorate degree or equivalent in biomedical sciences or veterinary medicine (M.D., Ph.D., or D.V.M.) to study the antibody production and mediator release in animal asthma model. Experience in biochemistry and immunology is desirable. Salary is negotiable. Please send résumé to: **Sharon Leitsch, University of Kentucky, Department of Medicine, 800 Rose Street, Lexington, KY 40536.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position available from March 1988 to work on the isolation of a natural product. Ph.D. in biochemistry or molecular biology required, experienced in separation or isolation techniques, chromatography and especially HPLC. Competitive salary and benefits depending upon experience. Send curriculum vitae and names of two references to: **Dr. Stewart Shankel, Loma Linda University, Loma Linda, CA 92350. Telephone: 714-824-4903.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE/REPRODUCTIVE ENDOCRINOLOGY—to study autocrine and/or paracrine roles of growth factors in mammalian ovarian function including the regulation of cell proliferation and differentiation and the characterization and regulation of ovarian growth factor production. Experience in molecular biology and/or protein biochemistry desirable but not mandatory. Available 1 March 1988. Salary \$19,000 to \$22,000 depending upon experience. Send curriculum vitae, reprints, and the names of two references to: **Dr. Jeffrey V. May, Department of Obstetrics and Gynecology, University of Kansas School of Medicine—Wichita, 2903 East Central, Wichita, KS 67214. Telephone: 316-687-2112. An Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FACULTY POSITION. Molecular biology of organ rejection. A funded position is immediately available for a recent Ph.D. with experience in molecular biology and recombinant DNA techniques. The research will focus on the molecular basis of tissue rejection following organ transplantation. The salary follows NIH guidelines and is commensurate with experience. Applicants should send curriculum vitae and three letters of reference to: **Graeme L. Hammond, M.D., Yale University School of Medicine, Department of Surgery, P.O. Box 3333, New Haven, CT 06510 by 31 May 1988. Yale is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH FELLOW UNIVERSITY OF NEBRASKA-LINCOLN VETERINARY SCIENCE DEPARTMENT

Position available immediately to conduct research on the immunobiology/pathogenesis and prevention of bovine respiratory syncytial virus in cattle. Involves identification and characterization of viral proteins important in cell receptor interaction and in immune mechanisms. Desire Ph.D. in immunology, microbiology or molecular biology with experience in protein biochemistry, immunology, and/or virology/tissue culture as well as ability to work with animals. Send curriculum vitae and three letters of reference by 19 February 1988 to: **Dr. Gary Anderson, Veterinary Science Department, University of Nebraska-Lincoln, Lincoln, NE 68583-0905. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FELLOW/MICROBIOLOGY UNIVERSITY OF NEBRASKA-LINCOLN VETERINARY SCIENCE DEPARTMENT

Position available immediately to conduct research in area of herpesvirus latency including identification and characterization of herpesvirus genes and gene products involved in initiation, maintenance, and reactivation of latent virus infections. Applicant with a Ph.D. in microbiology, biochemistry, or molecular biology with experience in molecular biology, protein biochemistry, and/or virology/tissue culture is desired. Send curriculum vitae and three letters of reference by 29 February 1988 to: **Dr. Daniel Rock, Veterinary Science Department, University of Nebraska-Lincoln, Lincoln, NE 68583-0905. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH POSITION IN MOLECULAR/QUANTITATIVE GENETICS

A position for a postdoctoral research associate is available in the Department of Genetics, North Carolina State University, to work on the molecular basis of quantitative genetic variation. The successful candidate will undertake the molecular analysis of P element-induced variation for bristle traits in *Drosophila melanogaster*. Experience in *in situ* hybridization, restriction fragment analysis, cloning and sequencing is desired, and some knowledge of quantitative genetics would be an asset. The position is available effective immediately or at a mutually agreeable date, and the salary is commensurate with research experience. Please send a complete curriculum vitae and three letters of reference to: **Dr. Trudy F. C. Mackay, Department of Genetics, Box 7614, North Carolina State University, Raleigh, NC 27695-7614.** The closing date for applications is 29 February 1988, or when a suitable candidate is found. *North Carolina State University is an Affirmative Action/Equal Opportunity Employer.*

Faculty Position Department of Urology Mayo Clinic

Tenure Track Position in Urologic
Cancer Research, Cell Biology/
Cancer Immunology/Molecular
Biology. Ph.D. or M.D. to
establish and direct a research
laboratory.

Please submit resume to:
P. P., Kelalis, M.D.
Chairman,
Department of Urology,
Mayo Clinic,
Rochester, MN 55905



Mayo Foundation
Rochester, Minnesota 55905

VICE PRESIDENT FOR BIOMEDICAL RESEARCH

The Association of American Medical Colleges seeks a Vice President for Biomedical Research reporting directly to the President as a member of his executive staff. Areas of responsibility encompass development of research policy; assessment of needs and policies governing research training; issues related to the financing and management of research and the research infrastructure, including plant, equipment, human subject regulations, and the use of animals; technology transfer; and relationships between academic medical centers and industry. The incumbent will be responsible for the program and activities of the Association's Council of Academic Societies, the component of the AAMC governance representing medical center faculty through 85 professorial and specialty organizations. Candidates should possess an M.D. or Ph.D. and have a strong background as an investigator in the biomedical or behavioral sciences. Experience at an academic medical center and knowledge of the National Institutes of Health through service on study sections or committee are desirable. Applications, including C.V. and bibliography, will be received through March 15, 1988. Send applications to:

Robert G. Petersdorf, M.D.
President
Association of American Medical Colleges
One Dupont Circle NW, Suite 200
Washington, D.C. 20036

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Research Assistants/ Research Associates

Genentech, Inc., a leader in the field of biotechnology has several Research Assistant/Research Associate positions available in Medicinal Analytical Chemistry:

Protein Characterization

Position requires the operation and maintenance of HPLC equipment in both analytical and preparative modes for the purification and characterization of peptides and proteins, as well as the development of novel and sensitive assays for variants of protein structure and function.

Successful candidates will hold a BA in Biochemistry/Chemistry and have at least 2 years' laboratory experience with a background in the following areas: General background in protein chemistry; General biochemistry methodology including chemical and structural characterization such as gel electrophoresis, HPLC, spectroscopy and protein chemical modification.

Immunochemistry

The responsibilities of this position include the development of immunoassays to facilitate the quantitation of polypeptide hormones and related proteins in serum and urine, as well as the characterization of these proteins in these matrices.

A background in basic biochemistry and a BS/MS are required with some emphasis on immunochemistry preferred. Assay development experience is preferred but not required and the successful candidate will have a minimum of 2 years' laboratory experience and should be familiar with techniques such as column chromatography, SDS-PAGE electrophoresis, affinity purification of antibodies, ELISA and RIA methodologies.

Bioassay Development

In this position you will study the mechanism of action of biologically active molecules and develop bioassays for these molecules. This will include the study of ligand-receptor interactions, as well as the purification and characterization of receptors.

To qualify, you should possess a BS/MS in Biochemistry, Cell Biology or a related field and experience in basic biochemical techniques for protein purification and characterization. Some background/knowledge in immunology as well as a familiarity with ligand-receptor binding assays and basic cell culture/immunological techniques are also required.

Hybridoma

The successful candidate will generate and characterize novel monoclonal antibodies in our Hybridoma Laboratory. This position requires a self-motivated individual who will interact with several research groups to produce and characterize monoclonal antibodies to a variety of recombinant, therapeutic proteins. Specific requirements include a BS/MS and at least 2 years' relevant work experience in the areas of mammalian cell culture, assay development and hybridoma technology.

Genentech, Inc. offers an excellent salary and benefits package, coupled with the opportunity to make a significant contribution to our organization. For Protein Characterization, Immunochemistry and Bioassay Development positions, please send resume to: Eric Mankuta, Human Resources Dept. 1282, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. For the Hybridoma position, please send resume to: Jill Johnson, Human Resources Dept. 4656, at the same address. An equal opportunity employer.

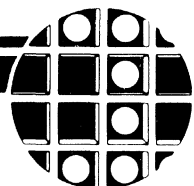
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VICE PRESIDENT, TECHNICAL AFFAIRS

A leading biopharmaceutical manufacturing company is in search of a Vice President, Technical Affairs. This position reports to the Chief Operating Officer and incorporates general and technical management responsibilities for the Quality Assurance and Regulatory Affairs functions of the corporation. The successful candidate will presently be in a position of major responsibility in a pharmaceutical company preferably one involved in the manufacture of Biological Products. Prior work experience will include 8 or more years of progressively more responsible management experience in quality assurance and regulatory affairs.

The individual must be well trained, preferably an M.D. or Ph.D. with the intellect and interpersonal skills to fit well in an entrepreneurially oriented company. This is an executive position with our company and is the senior management contact with the FDA. For immediate consideration, please submit your resume to:



Michael G. Harris
VP - Human Resources
INVITRON CORPORATION
4649 LeBourget Drive
St. Louis, MO 63134

Equal Opportunity/Affirmative Action Employer

Lawrence Berkeley Laboratory - Advanced Light Source

Project Deputy Director Of Experimental Systems

Reporting to the Project Director of the Advanced Light Source, the Project Deputy Director of Experimental Systems, bears primary scientific/technical responsibility for the design and specification for the initial complement of insertion devices, photon systems and associated components for the Advanced Light Source and planning for future insertion devices and photon systems for the facility. The incumbent will ensure that the physics design criteria are properly translated into engineering designs and components. Will direct appropriate R&D activities associated with experimental facilities, ensure that R&D objectives are defined and accomplished and develop plans for operational modes of the experimental program. Will recruit, develop and manage scientific and technical personnel and organize the staff required for support and operations of the experimental facilities. Will plan, develop and manage a modest size in-house research and development group. Will organize and participate in scientific and technical reviews, workshops and seminars. The successful candidate must have a proven record of substantial managerial responsibility and excellent scientific and technical judgement. Must have demonstrated success in the recruitment, development and management of scientific/technical personnel within a project environment. Must have ability to translate user requirements into specifications and design criteria for experimental facilities and must be able to effectively interact with potential users. Knowledge of the technology of insertion devices and optical systems as applied to the generation and exploitation of synchrotron radiation, as well as an understanding of the environment in which user-based synchrotron radiation research is carried out (equivalent experience at other user-based facilities may be appropriate) are desirable. Prefer a Ph.D. in the physical sciences, engineering or other related fields. To apply send two copies of resume to: **Lawrence Berkeley Laboratory, #1 Cyclotron Rd, Employment Office 90-1042, Berkeley, CA 94720. Refer to Job #A/4432.** An Equal Opportunity Employer M/F/H.



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The U.S. Department of Energy offers college juniors and seniors the opportunity to do research at five federal laboratories. Qualified students spend one academic term in energy-related research at the frontier of science with state-of-the-art facilities and equipment.

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For detailed information and application forms, please write to this address:

Science and Engineering Research Semester
U.S. Department of Energy
Office of Energy Research, Room 3F-061
1000 Independence Avenue, SW
Washington, D.C. 20585

Application Deadline: March 15, 1988

Hybridoma Technology BS/MS Scientist

A staff position is available within the Medical Products Department at Du Pont's Experimental Station in Wilmington, Delaware. The successful candidate will oversee monoclonal antibody production efforts, as well as interact with departmental scientists in monoclonal antibody research applications. Candidates should be experienced in the production of monoclonal antibodies, and possess a Bachelor or Masters degree. Experience in molecular immunology and/or protein chemistry is desirable.

At the world renowned Du Pont Company, you'll find a highly stimulating multidisciplinary research environment in addition to an excellent salary. To be considered, please send your resume to: Professional Staffing, Employee Relations Department, Room X50677, Du Pont Company, Wilmington, DE 19898.



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Clinical Research Opportunities



An equal opportunity employer

Pfizer, a leader in pharmaceutical research, is expanding its clinical research group. At its world headquarters in New York City, there are several new opportunities in the Department of Clinical and Scientific Affairs. Areas include pharmacology, pharmacokinetics and toxicology. As a member of a multidisciplinary project team, you will be involved in the application of preclinical principles to the clinical evaluation of new drugs. We seek individuals who are self-motivated and possess excellent interpersonal and written skills. Positions involve approximately 5-10% international travel.

Assistant Director Cardiovascular Pharmacology

Will participate in the management of clinical research programs involving investigator selection, protocol design and data research programs to evaluate the efficacy and safety of potential new drug candidates. Also, review preclinical and clinical data of drugs undergoing licensing evaluation and prepare regulatory submissions for the FDA. Candidates should have a PhD in Pharmacology in the cardiovascular area with a minimum of 3 years postgraduate experience.

Assistant Director Toxicology

Will participate in the management of pre-clinical toxicology programs involving investigator selection, protocol design and data

interpretation. Also, conduct analytical reviews of toxicology data for management, contract facilities and regulatory agencies; and evaluate joint development programs for licensed drug candidates. Applicants will have a PhD in Pharmacology, Toxicology or Physiology, with a minimum of 3 years related experience that includes laboratory work conducting drug toxicity studies.

Associate Director Pharmacokinetics

Will have responsibility for designing, initiating, and monitoring clinical and preclinical studies for pharmacokinetic, bioavailability and drug metabolism assessments. Also, will evaluate pharmacokinetic/pharmacodynamic data and prepare regulatory submissions. Will review preclinical and clinical data on drugs undergoing licensing evaluation and screen research proposals for scientific interest to Pfizer. Applicants will have a PhD in pharmaceutical sciences or a PharmD with a minimum of 5 years experience in pharmacokinetics/biopharmaceutics.

For immediate confidential consideration, please send resume, including salary history, and position of interest to: Ms. Marjorie Feld, Senior Personnel Associate, Pfizer Inc., 235 East 42nd Street, New York, NY 10017. Only candidates with appropriate backgrounds will be contacted.

STRATUS REAGENT DEVELOPMENT

The Dade Division of the Fortune 75 Baxter Healthcare Corporation is a leading supplier of diagnostic products and instrumentation for clinical laboratories, with facilities in the U.S., Europe and Puerto Rico. Enjoying continued growth and expansion, we are now seeking several highly motivated results oriented individuals to become members of our Stratus Reagent Development Department. Successful candidates would work with an exciting technology which has proven to be one of the most rapid and versatile means of enzyme immunoassay available today.

SENIOR RESEARCH SCIENTIST

Individual needed to be assay development Project Leader working with the automated Stratus Immunoassay System. A Project Leader is responsible for the management of an assay development team including participation as a member of the team at the bench. The assay development team is responsible for an assay from its inception until it has been released to the marketplace. Ideal candidate will have a Ph.D. in a life science and must be well versed in EIA techniques with hands-on experience in their design and validation. Candidates with postdoctoral training, particularly in an industrial setting, will be given greater consideration. Strong written and oral communications skills and strong interpersonal skills are essential. Knowledge of serum markers for infectious diseases would be helpful but is not essential.

RESEARCH SCIENTIST AND ASSOCIATE RESEARCH SCIENTIST

These individuals will be members of Stratus assay development teams and will be expected to contribute to assay design and development. At a minimum, candidates will have a Bache-

lor's degree in a life science. Knowledge of immunoassay principles is highly desirable and hands-on experience is an added plus. The level of entry into our organization will be commensurate with the degree of education and experience of the individual.

GROUP LEADER/STRATUS SYSTEMS SURVEILLANCE

This individual will be responsible for the management of our Stratus analyzer reference facility and for our Stratus product surveillance group. As such, this individual must represent R&D in problem solving interactions with other functional groups within the organization. The successful candidate will have a minimum of a Bachelor's degree in a life science. Prior industrial experience is required in immunoassay development, manufacture and/or testing. This position requires an individual with demonstrated management capabilities, a broad base of technical knowledge, and highly developed negotiating skills. Individuals with advanced degrees are encouraged to apply.

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 Baxter employee you will enjoy a competitive salary and benefit package, along with career growth opportunities within the division and corporation. 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.** An Equal Opportunity Employer.

Dade Division

Baxter

POSITIONS OPEN

POSTDOCTORAL SCIENTIST—A Colorado research institute is seeking a postdoctoral scientist whose responsibilities will include synthesis and physical characterization of electronically conductive polymers, photo-voltaic and photoelectrochemical investigations of photon conversion devices based on conductive polymers. Conduct in-depth research utilizing UV-visible spectrophotometry, infrared spectrophotometry, x-ray photoelectron spectroscopy, ultraviolet photoelectron spectroscopy, macroscopic electrical conductivity, electron spin resonance spectroscopy, photocurrent-voltage measurements and capacitance-voltage measurements. Salary is \$25,120 per year for 40 hours per week. Salary includes \$150 per month for housing allowance. Applicants must have a Ph.D. in physics or chemistry and 2 years of experience as the job requires a strong academic foundation for autonomy in conducting meaningful scientific experiments, mastery of instrumentation and interpretation of experimental results. Apply by résumé only to: **Colorado Department of Labor and Employment, 600 Grant Street, Suite 900, Denver, Colorado 80203-3528** and refer to job order number: CO 2861225.

POSTDOCTORAL SCIENTIST DIAGNOSTIC CHEMISTRY

Becton Dickinson and Company Research Center has vacancies available in its Postdoctoral Program. This is an immediate opportunity and involves work in the exciting and rapidly advancing immunodiagnosics field. You will work with outstanding scientists in state-of-the-art laboratories while developing novel immunoassay systems.

The candidate(s) we seek will have completed a Ph.D. in biochemistry or organic chemistry. Desirable skills would include a working knowledge of organic chemistry, immunoassay development, electrochemical sensors, analytical biochemistry, and/or protein chemistry.

The Research Center is located in Research Triangle Park, North Carolina, a dynamic biotechnology center surrounded by three major universities. This is a 2-year appointment, contingent upon performance, at a salary commensurate with your experience. Persons wishing to make application or learn more about this opportunity should submit their curriculum vitae or questions to: **Daniel Wagner, Ph.D., Becton Dickinson Research Center, PO Box 12016, Research Triangle Park, NC 27709. Telephone: 919-549-8641.**

Affirmative Action Employer/Equal Employment

The Basic Science Departments (Cell Biology and Neuroanatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology), Medical School, University of Minnesota, periodically have openings for **POSTDOCTORAL TRAINING**.

For information about possible openings in these programs, write, specifying department of interest, to:

**University of Minnesota Medical School
Box 293 UMHC
420 Delaware Street, S.E.
Minneapolis, MN 55455
Attention: James C. Nelson**

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

REPRODUCTIVE PHYSIOLOGIST—Full-time, regular, tenure-track appointment at the assistant or associate professor or professor level. Ph.D. in reproductive physiology or related field; postdoctoral training is desirable with specialization in embryo manipulation and biotechnology. Applicant is expected to establish a strong research program and teach graduate and undergraduate courses. Applicant should submit: (i) a letter which describes research interests and provides reasons for their interest in the position; (ii) curriculum vitae; (iii) graduate academic transcripts; and (iv) names of five references.

Applications should be sent to:

**Dr. W. R. Gomes, Head
Department of Animal Sciences
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
Telephone: 217-333-3462**

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

POSITIONS OPEN

PROFESSORSHIP IN CHEMISTRY. The University of Minnesota, Department of Chemistry, seeks to add a senior faculty member in chemistry beginning September 1988 or later. The appointment will be at the full professor level, and a distinguished record of accomplishment in research and teaching is required. Curriculum vitae, including a list of publications and an indication of research interests, and the names of four people who can be contacted for letters of recommendation should be sent to: **Professor Wilmer Miller, Department of Chemistry, University of Minnesota, Minneapolis, MN 55455.** Applications should be completed by 30 April 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

PROTEIN STRUCTURE at University of California, San Francisco (UCSF). **POSTDOCTORAL POSITIONS** available in structural analysis of glycoproteins. Tandem mass spectrometry is being used to analyze oligosaccharide and glycolipid structures of scrapie prion proteins. X-ray structure planned. Trainees will work in the labs of **A. L. Burlingame, Robert Fletterick and Stanley Prusiner.** Candidates must be U.S. citizens or hold a permanent residence visa to be eligible for NIH training grant stipends (\$15,996 to \$30,000). Backgrounds in organic chemistry, physical biochemistry, or protein structure preferred. Apply to: **S. Prusiner, UCSF, San Francisco, CA 94143-0518.**

RESEARCH ASSISTANT PROFESSOR: The Musculoskeletal Research Laboratory (MSRL) SUNY Stony Brook is seeking a cell biologist at the level of research assistant professor. This position focuses on the cellular mechanisms responsible for functional adaptation in skeletal tissues. These goals are being approached via both in vivo and in vitro protocols. Qualifications include a Ph.D. in an appropriate discipline, and a growing record of achievement in cell research. A special interest in the response of connective tissue to electrical/mechanical stimuli is desirable. The successful candidate will also be responsible for the tissue culture facility. Faculty rank and salary are dependent on training and experience. Please submit résumé with three letters of reference by 20 February 1988 to: **Clinton T. Rubin, Ph.D., Associate Professor, Department of Orthopaedics, HSC, SUNY Stony Brook T18-030, Stony Brook, NY 11794-8181.** *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK# 329.*

RESEARCH ASSOCIATE: Ph.D. cell biology or M.S. zoology and Ph.D. candidate. Demonstrated knowledge required of: cell biology and tumor immunology; characterization of monoclonal antibodies and tumor-associated antigens. Study cell biology of mammary tumors; biology of metastatic disease; tumor cell heterogeneity; production and characterization of monoclonal antibodies and tumor-associated antigens. Forty hours per week; \$22,000 per year. Apply to: **Connie W. Spates, Alabama State Employment Service, P.O. Box 2236, 708 Avenue B, Opelika, AL 36801. J.O. # AL 0449779. Equal Employment Opportunity.**

RESEARCH ASSOCIATE—an academic setting. To conduct research on Geophysical Fluid Dynamics and Air-Sea interaction, especially on oceanic fronts, mixing and turbulence in stratified fluids, solar pond simulation and wave modulation phenomena; attend technical conferences, prepare research proposals and papers, guide graduate students. Must have knowledge of laboratory experiment and satellite imagery, numerical modeling, data process and computer acquisition system. Ph.D. in marine studies/physical Oceanography. Forty hours per week, \$28,454 per year, no experience needed. Job site and interview: Los Angeles, California. Please send résumé and this ad to: **Job #MLU #14158, P.O. Box 9560, Sacramento, CA 95823-0570, no later than 20 February 1988.**

RESEARCH SCIENTISTS, BabCO has immediate openings for M.S. with 3 to 5 years, or Ph.D. with 0 to 2 years of experience in the areas of protein biochemistry and immunology. Knowledge of glycoproteins, assay development and clinical chemistry helpful. BabCO is a premier immunology organization, located in the San Francisco Bay Area, and is committed to providing quality custom immunological services. Please respond in confidence to: **4131 Lakeside Drive, Suite B, Richmond, CA 94806. (Attention: K.B.)**

POSITIONS OPEN

RESEARCH ASSISTANTSHIPS AND FELLOWSHIPS. Interested in interdisciplinary research on agricultural practices-related ground water contamination? If you are, consider the Center for Agricultural Impacts on Water Quality within the Institute of Agriculture, Forestry and Home Economics at the University of Minnesota. Opportunities are available for prospective M.S. and Ph.D. students to receive research assistantships and fellowships to conduct research in the areas of nitrogen and pesticide management as they relate to water quality. This includes research on soil fertility, the physics of water movement through soils, and the interactions of pesticides in the environment. If you are interested contact: **Dr. James L. Anderson, Director, Center for Agricultural Impacts on Water Quality, University of Minnesota, 439 Borlaug Hall, St. Paul, MN 55427. Telephone: 612-625-8209.** Résumés, college transcripts, and Graduate Record Exam scores are necessary.

RESEARCH FELLOW

The Institute for Advanced Studies in Biological Process Technology (BPTI) of the University of Minnesota is seeking an individual with at least an M.S. in biochemical engineering, biochemistry, or microbiology with practical experience in the instrumentation and control of fermentation processes. Preference will be given to individuals with experience in interfacing of instrumentation to microprocessors; electronics related to computers and peripherals; and software development for data acquisition, analysis, and process control combined with a background in fermentation technology.

Responsibilities of this position will include coordination of research projects with principal investigators associated with the BPTI, development of microprocessor-based process control for operation of the BPTI's pilot plant, development of software for data acquisition and analysis as well as coordination of data communication with the University's computing facilities. This individual will report to the director of the BPTI and work in close interaction with the manager of the BPTI's Central Research Facility in operating the pilot plant facility and supervising technical support personnel. Salary is negotiable based upon qualifications.

Applications including curriculum vitae and three letters of reference should be sent to:

**Search Committee
Process Control Position
University of Minnesota, BPTI
240 Gortner Laboratory
St. Paul, MN 55108**

Complete applications must be received by 7 March 1988.

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

RESEARCH POSITION

The Universities Space Research Association (USRA) has an ongoing need for research scientists and assistants to investigate processes or products which are limited or affected by conditions not shared by the Space and Earth environments (e.g. microgravity, high vacuum, etc.). Candidates should be able to quantify these limitations and effects theoretically and/or experimentally. They will be expected to: develop theories for various heat and mass transport processes encountered during crystal growth and solidification, develop numerical codes and perform analysis on mass redistribution, interface stability, defect formation in structural, electronic, and optical materials, and/or evaluate the effects of residual gravitational forces on materials and processes. Additionally, candidates could provide assistance with ground-based and flight hardware related to studies to ascertain the potential benefits of processing materials in space. Work will be conducted in the Microgravity Sciences Division of the Space Science Laboratory, NASA/Marshall Space Flight Center. Scientists must have Ph.D. in related field (e.g. Materials Science or Physics). Assistants must have undergraduate degree in related field. The appointment will be for 1 year, renewable. Salary commensurate with experience (minimum: \$33,000 per year for scientists) with full medical and retirement benefits. Send résumé to: **USRA, Dr. James M. Van Alstine, 139-A McMurtree Drive, Huntsville, AL 35806.** *USRA is an Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON DEPT. OF OBSTETRICS AND GYNECOLOGY

Robert Wood Johnson Medical School, an academically autonomous institution within the University of Medicine and Dentistry of New Jersey, seeks a Chairperson for the Department of Obstetrics and Gynecology. Those interested should send Curriculum Vitae to: **Joseph A. Lieberman, III, M.D., Chairperson of Obstetrics and Gynecology Search Committee, UMDNJ-Robert Wood Johnson Medical School, One Robert Wood Johnson Place, CN-19, (S), New Brunswick, NJ 08903-0019.**

Equal Opportunity/Affirmative Action
Employer M/F/H/V.



PLANT BIOTECH POSITIONS

A leading U.S. agricultural company has immediate openings on its Plant Biotechnology Team in Plant Pathology and Gene Transfer. Qualifications for the Pathology position include a PhD and experience with bacterial or viral diseases. Qualifications for the Gene Transfer position include a PhD or MS with experience in Agrobacterium transformation.

Send curriculum vitae and reference to:

Dr. C.E. Green
Vice President
of Research

Ball GEO. J. BALL, INC.

P.O. Box 335
West Chicago, IL 60185

Electrophysiologists

Our research and development professionals use state-of-the-art methodology to explore every avenue in innovative drug discovery. Burroughs Wellcome Co. is committed to developing and marketing important new medicines for a healthier and happier world. We currently have two positions available in our Pharmacology Department at the **Research Triangle Park, NC** facility.

Junior Research Pharmacologist (#2070)

Responsibilities will be to develop new procedures and to adopt existing single unit recording techniques to study pharmacological effects of CNS active agents on neuronal activities in small animals and brain slices. Requirements include a BS degree and a minimum of 2 years work experience in the neurosciences or equivalent experience/training. Practical experience in electrophysiology and skills in electronics, statistics, pharmacology and surgical techniques are desirable.

Postdoctoral Fellow (#3015)

This position requires a graduate of a neuroscience program to conduct research in brain slices and/or cultured cells. Experience in electrophysiology, voltage clamping in particular, is desirable. The successful candidate will have the opportunity to pursue the mechanism of CNS active agents as they influence monoamine, amino acid, or peptide neural systems at the cellular level. This position should allow an individual to gain first hand knowledge of industry as a potential career.

As a professional with Burroughs Wellcome Co. you can expect a competitive salary and an excellent benefits package. Qualified minority, female, handicapped and veteran individuals are encouraged to apply. Interested candidates should forward their curriculum vitae and a copy of transcripts to: **Employment Supervisor, Burroughs Wellcome Co., 3030 Cornwallis Road, Research Triangle Park, NC 27709.** Please include position number. An Equal Opportunity/Affirmative Action Employer.



Wellcome

BIOTECHNOLOGY

Diagnostics/Vaccines

Cambridge BioScience Corporation, a biotechnology company specializing in infectious disease diagnostics and vaccines, utilizing r-DNA, protein chemistry, monoclonal antibody and bio-processing technology, offers outstanding opportunities in our new Worcester, Massachusetts laboratories. We are seeking Ph.D. scientists and MS/BS level research associates.

Product Development

Immunochemist needed for newly created position. Responsibilities to include assay development of new technology and delivery system through clinical trials. Position requires Ph.D. and 3+ years' experience in commercial non-isotopic immunoassay/infectious disease diagnostic kit development.

Immunobiology

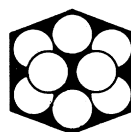
Position will involve responsibility for planning and implementing components of feline and human retrovirus vaccine program, including animal evaluation of vaccine candidates and in vitro assays of leukocyte function. Ph.D., plus 1-3 years' postdoctoral experience in cellular immunology and flow cytometry required.

Molecular Biology

Position calls for Scientist with proven leadership skills and experience with expression of foreign proteins in eukaryotic systems. Additional experience with molecular biology of viruses a plus. One-to-two years' post-doctoral experience preferred.

Research Associate sought for position requiring familiarity with cloning and manipulation of DNA, cloning and expression of genes in development of diagnostic vaccines and therapeutics, as well as general knowledge of molecular biology. M.S. or B.S. with 2-3 years' experience also required.

Cambridge BioScience offers a unique and stimulating environment and close working associations with leading academic institutions. Qualified applicants should send resume and salary requirements to: **Cambridge BioScience Corporation, Human Resources Department, Box S288, 365 Plantation Street, Worcester, MA 01605.**



**Cambridge
BioScience**

An Equal/Affirmative Action Opportunity Employer

POSITIONS OPEN

RESEARCH ASSOCIATE—PHOSPHOINOSITIDES—Harvard Medical School—Postdoctoral position available for research on receptor-mediated signal transmission. Pools of phosphatidylinositols and second messengers are to be studied in cultured cells. Experience in one or more of the following essential: cell culture, enzymology, kinetics, phospholipid metabolism.

Salary dependent on qualifications, \$23,000 minimum. Send curriculum vitae and names of three references to: **George Hauser, Ph.D., Ralph Lowell Labs, McLean Hospital, Belmont, MA 02178. McLean Hospital is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH POSITIONS WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

The Wadsworth Center is offering excellent opportunities to scientists to contribute to major AIDS research programs in laboratory sciences and epidemiology.

Doctorate level scientists with experience in recent immunologic and molecular biology technologies and an interest in detecting and describing HIV infection and disease are sought for the following specialties: (i) immunohistochemistry—studies on viral antigens and other markers of infection and disease progression, (ii) virology/molecular genetics—recombinant technologies to detect and characterize retroviruses, (iii) cellular immunology—cell function and flow cytometry studies, (iv) epidemiology—infectious disease sampling and analysis strategies for population and laboratory data, and (v) applied immunology—instrumentation/computerization of serologic methods and services.

The Wadsworth Center laboratories are located in Albany, NY. The Capital District area is noted for excellence in education with outstanding cultural and recreational opportunities nearby. New York City, Boston, and Montreal are all a short distance away.

These positions offer a comprehensive benefit package. (Salary is commensurate with candidate's training and experience). Candidates should send curriculum vitae, a summary of research experience, and the names of three references (and salary requirements) to: **Dr. Donald S. Berns, Director, Division of Clinical Sciences, Wadsworth Center for Laboratories and Research, Empire State Plaza, Albany, NY 12201.**

POSITIONS OPEN

RESEARCH ASSOCIATE

Employer seeks to fill research associate position, involving the study of distinct products of human retroviral (HIV-1 and HIV-II) genes and gene encoding for lymphoid cell surface differentiation antigens. He/she must initiate a recombinant DNA laboratory setup, establishing all procedures and protocols, apply recombinant DNA technologies to do independent research involving distinct products of human retroviral genes and supervise one staff member to assist with research. A Ph.D. in molecular genetics or a closely related field is required. A minimum of 6 months of postdoctoral training in this field is required. \$28,000 per annum. Job site: Palo Alto. Send this ad and a résumé to: **Job #AW 13286, P.O. Box 9560, Sacramento, CA 95823—0560 not later than 19 February 1988.**

RESEARCH ASSOCIATE: LipoGen Inc is a young dynamic biotech company engaged in the development of innovative immunodiagnoses. We are presently seeking research associates who would enjoy a challenging environment that recognizes individual initiative. Significant knowledge of immunochemistry is essential; immunoassay development and/or industrial experience would be a plus. The successful candidate will have an M.S. with 1 to 2 years of experience, or a B.S. with 2 to 5 years of experience. The company is located in the Oak Ridge corridor of West Knoxville, an area that offers an excellent living environment in close proximity to the Smokey Mountains.

Please reply in confidence to: **Dr. S. McMillan, LipoGen Inc, 10515 Research Drive, Knoxville, TN 37932.**

RESEARCH SCIENTIST/ BIOMEDICAL ENGINEER

Ph.D. level with training in biomedical engineering and physiologic testing. Strongly prefer experience in cardiac pacing, arrhythmia detection and/or defibrillation. Clinical experience also desirable. Reply to: **Jim Mapel, Cardiac Pacemakers, Inc., 4100 Hamline Avenue North, St. Paul, MN 55112—0079.**

POSITIONS OPEN

RESEARCH ASSOCIATE—BIOCHEMISTRY

A research associate position is available in x-ray and neutron diffraction studies of cyclodextrins. Analysis of hydrogen bonding networks will be emphasized. Extension of these studies into proteins and nucleic acids is anticipated. Experience in crystallography/biochemistry desirable. Send résumé to:

**Dr. Brian E. Hingerty
Oak Ridge National Laboratory
Health and Safety Research Division
Building 9207, MS 002
Oak Ridge, TN 37831**

An Equal Opportunity/Affirmative Action Employer

RESEARCH SCIENTIST position available immediately to be part of research team studying blood chemistry in patients with psychiatric and medical illnesses. The candidate must have a Ph.D. in biochemistry or pharmacology and at least 1 year of postdoctoral experience. Investigative tools will include NMR pulse sequencing, HPLC and cell biology techniques. Salary is \$25,000 plus benefits. Send curriculum vitae and names of three references to: **Dr. Arnold Winston, Department of Psychiatry, Beth Israel Medical Center, First Avenue and 16th Street, New York, NY 10003.**

An Equal Opportunity/Affirmative Action Employer.

BABSON COLLEGE SCIENCE PROGRAM COORDINATOR

Babson College invites applications for a position as Science Program Coordinator starting September 1988. This is a senior position with responsibility for the development, implementation, and coordination of our science curriculum. We are leaders in science education for business students. Through curriculum development and outstanding teaching, the Coordinator will help us enhance the technological literacy of our students and their understanding of the connections among science, technology, and business. Send curriculum vitae and names of three references to: **Dr. James R. Philips, Math/Science Division, Babson College, Babson Park (Wellesley), MA 02157. Babson College is an Equal Opportunity/Affirmative Action Employer.**

Postdoctoral Scientist

The Investigative Toxicology and Immunology and Antiinfectives Therapy Departments of Smith Kline & French Laboratories, located in suburban Philadelphia, are seeking a Postdoctoral Scientist to conduct quantitative cytometry on proliferative rodent lesions and to study the molecular mechanisms involved in the formation of these lesions. The appointment is for one year, renewable for a second year on mutual agreement.

The successful candidate will:

- correlate DNA content (ploidy) as measured by adherent cell cytometry and flow cytometry with the proliferative activity of rodent lesions as determined by histologic and morphometric criteria.
- compare oncogene expression of spontaneous and drug-induced proliferative rodent lesions.
- study the intracellular oncoprotein distribution in tissue sections prepared from proliferative rodent lesions.

Candidates should have:

- Ph.D. in Cell Biology or related discipline with 0-3 years postdoctoral experience.
- Knowledge of quantitative cytometry and molecular biology.
- Excellent verbal and written communication skills.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Please forward your C.V. and the names of three references to: **Marianne J. Shandy-C0048, Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.**

SK&F
A SmithKline Beckman Company

SUMMER 1988 TEN ENVIRONMENTAL SCIENCE AND ENGINEERING FELLOWSHIPS

Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for ten environmental science and engineering fellowships available for summer 1988. The fellows will work closely with the Environmental Protection Agency (EPA), Office of Research and Development, and other program offices, in Washington, DC, and assist in identifying and assessing the significance of long-range environmental problems and opportunities. The 10-week appointments are scheduled for 6 June through 12 August 1988. The awards will be announced prior to the end of April 1988.

Postdoctoral to mid-career scientists, engineers, and other appropriate professionals are encouraged to apply. Candidates may be from the physical, biological, or behavioral sciences, or any field of engineering or other relevant professional fields. They are expected to be critical thinkers, articulate, adaptable, and able to work with a variety of people from different professional backgrounds.

The 1988 Environmental Fellows will receive a taxable stipend of \$700 per week and a nominal additional amount for temporary relocation expenses and travel in connection with the fellowships.

A detailed, future-oriented research project will be conducted by each fellow which is of mutual interest to him or herself and the EPA. A project report will be submitted at the completion of the summer's work. Typical areas of research interest within EPA include: environmental risk assessment; biological pesticides; acid deposition; mobile source air pollution; oxidants, gases and particles; municipal waste water and spills; drinking water; hazardous waste; chemical testing and assessment; pesticides; radiation; and energy.

For further information and specific application requirements contact:

**Lisbeth A. Levey
Environmental Science and Engineering Fellows Program
American Association for the Advancement of Science
1333 H Street, NW, Washington, DC 20005
Telephone: 202-326-6600**

Deadline for applications is 1 March 1988.

INDIANA UNIVERSITY SCHOOL OF DENTISTRY

Position Vacancy Ph.D Director Bone Research Laboratory Department of Orthodontics

Full-time, tenure-track, Ph.D. Director position in the Department of Orthodontics available July 1, 1988. Under direction of the department chairman, the individual in this position will be expected to help establish and administer the Bone Research Laboratory, which will be the primary research facility of the Orthodontics Department. Research interests are fundamental as is applied musculoskeletal physiology, including craniofacial growth and development, endosseous dental implants, osteoblast histogenesis, biomechanics, TMJ physiology, and adaptation to microgravity. Primary techniques of interest to the chairman are autoradiography, multiple fluorochrome histomorphometry and cell kinetics. Responsibilities include supervision of a broad spectrum of research projects conducted by faculty and students (undergraduate, masters, and Ph.D.), as well as providing selected research and clinical biopsy services. The director of this program will be expected to secure and maintain extramural funding in the general field of musculoskeletal physiology of the head and neck. It will be possible to pursue and independent research program as long as it supports the overall mission of the department. Teaching responsibilities include research methodology, scientific writing, applied craniofacial anatomy, and growth and development. **QUALIFICATIONS.** Candidate must have a Ph.D. degree and should have an established record of research excellence, as evidenced by refereed publications and extramural funding. A background in bone morphology, histomorphometry and/or biomechanics is essential. Individual must be an effective teacher and possess interpersonal skills necessary to maintain a diverse research program, involving multiple collaborations within the industrial and academic community. Teaching experience in basic sciences supporting an orthodontic program would be helpful. Salary and rank commensurate with background and experience. **APPLICATIONS.** Review of candidates will begin February 1, 1988 and continue until position is filled. Submit letter of application, curriculum vitae, three letters of reference, and reprints of three representative publications to **Dr. W. Eugene Roberts, D.D.S., Ph.D., Chairman, Department of Orthodontics, Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis, IN 46202.**

Indiana University is an Equal Opportunity/Affirmative Action Employer

IN VITRO DIAGNOSTIC PRODUCT DEVELOPMENT

BIOTOPE, Inc. is a growing Seattle-based company developing unique medical diagnostic test systems for decentralized test sites. We are seeking the following specialists to assume significant responsibilities in product development and manufacturing.

ASSAY DEVELOPMENT GROUP LEADERS. Experienced team leaders to supervise small groups developing automated immunoassays or clinical chemistry assays.

MANUFACTURING MANAGER to set up and direct the production process for GMP production of assay consumables and instruments.

MECHANICAL ENGINEER to design electro-optical mechanisms and instruments.

DOCUMENTATION SPECIALIST to establish and maintain company-wide documentation system for control of GMP manufacturing processes.

All positions require good communication skills and demonstrated prior success in similar industry positions.

BIOTOPE offers an attractive compensation and benefits package, including equity participation, and a location in the scenic Pacific Northwest.

Qualified candidates should submit resume, references and salary requirements to:

Personnel Director
BIOTOPE, Inc.
4 Nickerson Street
Seattle, WA 98109



BIOTOPE

AN EQUAL OPPORTUNITY EMPLOYER

PH.D. PHARMACEUTICAL SCIENTIST

Abbott Laboratories. At the forefront in scientific research and development, with a commitment \$4.4 billion strong. Our Pharmaceutical Products Division is forging ahead in the discovery of new treatments for a variety of medical disorders. In support of this research, we are now seeking a Ph.D. Scientist to conduct studies in our Product R&D area.

Specifically, position is responsible for studies of solid state physical chemical properties of drug candidates as related to formulation development. We require at least 0-5 years experience plus a strong background in physical and analytical chemistry, which should include both experimental and theoretical experience in solid state chemistry and familiarity with DSC, solution calorimetry, hot stage microscopy and surface area analysis. HPLC experience and an understanding of solution chemistry and thermodynamics are desirable. Good communication skills are essential.

Known for a strong management style and a progressive scientific environment, Abbott provides an exceptional salary and benefits package, which includes profit sharing and stock retirement plan. And we're located in an attractive suburban area just 30 miles north of Chicago. **For confidential consideration, send your resume with salary history to: Patricia Handy/Corporate Placement Dept. SCI/2-5.** Abbott is an Affirmative Action Employer.

ABBOTT
ABBOTT PARK IL. 60064

"HEALTH CARE WORLDWIDE"

POSTDOCTORAL FELLOW

Cetus Corporation, a frontrunner in the field of biotechnology, seeks a highly qualified individual with in-situ hybridization experience to fill a Postdoctoral Fellow research position.

Your work will focus on cellular interactions and gene expression within atherosclerotic plaques.

The successful candidate should have experience in basic molecular biology and cell culture techniques, combined with excellent communications skills. Please send your C.V. to:

Cetus Corporation
Box DMPD
1400 Fifty-Third Street
Emeryville, CA 94608

An equal opportunity/affirmative action employer.


cetus

POSITIONS OPEN

BIOGROWTH, INC. RESEARCH SCIENTISTS

BioGrowth, a biotechnology company, has immediate openings for the following scientists:

PROTEIN CHEMIST, Ph.D., with experience in protein purification and characterization, preferably from recombinant organisms. Particular expertise in immunochemistry, affinity and HPLC chromatography, Western blotting, and protein function analysis is required. Hybridoma expertise is desired.

MOLECULAR BIOLOGIST, Ph.D., with genomic and cDNA cloning, RNA isolation and analysis, and expression of genes in bacteria or mammalian cells.

BIOCHEMIST, B.S./M.S., with additional lab experience including gel electrophoresis, chromatography, and immunoassay development.

MOLECULAR BIOLOGIST, B.S./M.S., with additional lab experience including cDNA library construction, mRNA preparation/translation, DNA/RNA, sequencing, and expression vector construction.

BioGrowth, located in new facilities in the San Francisco Bay area, offers competitive salaries, benefits, and the opportunity to make a major contribution at a newly developing company. Please send your résumé, salary history, and list of three references to:

BioGrowth, Inc.
3065 Atlas Road, Suite 117, Department SC-4
Richmond, CA 94806

SENIOR REPRODUCTIVE PHYSIOLOGIST/BIOLOGIST

The Department of Zoology of the University of Texas at Austin invites applications or nominations for a senior tenure-track position in vertebrate reproductive biology. This position will be open in September 1989. We are particularly interested in candidates who specialize in neurology or neuroendocrinology but whose concerns are multidisciplinary. The successful candidate will be expected to have demonstrated a commitment to quality graduate teaching and a vigorous, independent research program. Please submit curriculum vitae (including biographic data), short statement of research objectives, names of at least five referees, and selected reprints to: **The Chairman, Department of Zoology, University of Texas, Austin, TX 78712-1064.**

The University of Texas at Austin is an Equal Opportunity/Affirmative Action Employer.

SENIOR RESEARCH SCIENTIST

PDS Research Laboratories is seeking a person with a Ph.D. degree and experience in virology, molecular biology, and/or protein chemistry. Applicants must have 1 to 3 years of postdoctoral training with published work in his or her research area. This position requires a good understanding of human retrovirology and offers high visibility and interaction with members of prominent scientific institutions including National Institutes of Health, U.S. Department of the Army and Food and Drug Administration through collaborations, publications and presentations. Salary commensurate with experience, and comprehensive benefits.

Applicants are invited to send a complete curriculum vitae to:

PDS Research Laboratories
Attention: Dana Lee
13 Taft Court
Rockville, MD 20850
Telephone: 301-294-2297

TENURE-TRACK APPOINTMENT in Environmental Planning. Established scientist capable of heavy involvement in Ph.D. program, with integrative, ecosystem, interdisciplinary approach. Qualifications in ecology or environment or resource management and/or suitable supplementary fields: Regional planning, geography, or development studies. Ph.D. required. Commitment to planning process, professional experience and interest in developing world would be assets. *In accordance with Canadian Immigration requirements, advertisement is directed to Canadian citizens and permanent residents.* University of Waterloo will fill vacancies with recent Ph.D. graduates appointed as assistant professors wherever possible. *Women candidates are particularly welcome.* Letter of application, curriculum vitae, and three letters of reference should be sent by 26 February 1988 to: **Professor Len Gertler, Director, School of Urban and Regional Planning, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.**

POSITIONS OPEN

SCIENTIST

The Universities Space Research Association (USRA) has a need for a scientist to prepare, coordinate, organize, document, and distribute Science Requirements related to various microgravity science experiments involving USRA, NASA and university scientists. Work shall include coordination of multiuser needs, scientific evaluation of requirements as regards implementation, enhancing communication among project scientists and between scientists and implementation personnel. Candidates should hold a minimum of a master's degree in physics, materials science, materials engineering, mechanical engineering, or a related field and appreciate both physical and biomedical phenomena related to microgravity science. Candidates with a Ph.D. are encouraged to apply. Good verbal and written skills as well as a willingness to travel are also needed. Additionally, the candidate must have a good knowledge of the relationships between various NASA centers (especially Marshall Space Flight Center), USRA, and NASA-sponsored university scientists as regards the evolution of microgravity science experiments from theoretical hypothesis through to successful flight hardware. Work will be conducted at the Marshall Space Flight Center. Salary commensurate with experience (minimum \$35,000 per year) with full medical and retirement benefits. Send résumé to: **USRA, Dr. James M. Van Alstine, 139-A McMurtrie Drive, Huntsville, AL 35806.** *USRA is an Equal Opportunity/Affirmative Action Employer.*

STAFF FELLOWS NATIONAL INSTITUTE ON DRUG ABUSE ADDICTION RESEARCH CENTER (ARC)

Applications are invited for possible appointments as staff fellows within the Preclinical Pharmacology Branch of the NIDA Addiction Research Center. This Branch conducts studies related to the behavioral pharmacology and genetics of drugs of abuse using experimental animals. Candidates must have a Ph.D. degree, with training in either behavioral, biochemical or molecular genetics, and an interest in problems related to neuroscience and animal models of drug abuse. The successful candidate will be expected to initiate and conduct interdisciplinary studies directed towards elucidating neural substrates of drug actions using behavioral, biochemical and molecular methods. Initial appointments are for 2 years with extensions possible. Current starting salary for persons without postdoctoral experience is \$27,172 U.S., with increments for relevant postdoctoral experience, plus generous benefits. The Addiction Research Center is located in Baltimore at the Francis Scott Key Medical Center, a Johns Hopkins facility in close proximity to Washington, D.C. Send curriculum vitae, application for federal employment (SF-171), bibliography, reprints, three letters of reference and a certified copy of the doctoral degree if available to: **Dr. Steven R. Goldberg, Chief, Preclinical Pharmacology Branch, NIDA Addiction Research Center, Box 5180, Baltimore, MD 21224.** *The ARC is an Equal Opportunity/Affirmative Action Employer M/F/H/V.*

INFORMATION SYSTEMS— DREXEL UNIVERSITY, COLLEGE OF INFORMATION STUDIES

TENURE-TRACK POSITIONS are anticipated, beginning September 1988, for candidates prepared to develop courses and research in the following areas: telecommunications and networking, systems development methodologies, software engineering, knowledge-based systems, human-computer interfaces, data administration, and database design and development, especially for information retrieval. Candidates with secondary strengths in other areas of information studies will receive special consideration. The doctorate in the relevant area is required. Appointments will be at the assistant or associate professor level from minimum of \$33,000 per academic year. Candidates at mid-career level are encouraged to apply. Candidates should have strong interests in interdisciplinary research; and in teaching at both the undergraduate and graduate levels.

Résumé should accompany application to: **Dr. Belver Griffith, Search Committee, College of Information Studies, Drexel University, Philadelphia, PA 19104.** Telephone: 215-895-2474. Closing date 1 March 1988. *Drexel University is an Equal Opportunity Employer/Affirmative Action Institution and invites applications from minorities and women.*

POSITIONS OPEN

SYSTEMS PROGRAMMER

The Genetics Computer Group (GCG) at the University of Wisconsin is seeking applicants for the position of systems programmer. We are looking for someone with a background in biocomputing to write applications on VAX/VMS for molecular genetics. System support for a VAXStation cluster and high level (programmer level) user support may also be part of the position's responsibilities. Applicants must have a minimum of a B.S. degree in biological sciences, and 2 years of programming experience in biocomputing. Send résumés to: **Maggie Smith, University of Wisconsin Biotechnology Center, 1710 University Avenue, Madison, WI 53705.**

TENURE-TRACK FACULTY POSITION IN MARINE SCIENCE

The University of Alaska Fairbanks, Institute of Marine Science is seeking applicants for a tenure-track faculty position in the general area of marine mammalogy. The appointment will involve research and graduate level instruction and supervision. The Institute of Marine Science has a dynamic group of 22 faculty from various disciplines and about 35 graduate students. It is involved in a variety of research activities in arctic and subarctic areas.

We are seeking a person who will develop a program addressing the physiological or behavioral ecology of pinnipeds and/or cetaceans in the Arctic and Subarctic. Enthusiastic participation in the graduate instructional program will be expected. Polar and subpolar experience, awareness of Soviet, Canadian, and Scandinavian research, and interest in developing collaborative research on an international scale are highly desirable. Many activities will be multidisciplinary.

Candidates must possess a Ph.D. in an appropriate discipline. We expect to fill this position at the assistant professor level, but a more senior appointment may be possible, depending on the applicant's credentials.

Applications must be received by 15 March 1988. Applicants should send a statement of interest, curriculum vitae, and the names and addresses of three references to:

**Dr. Francis H. Fay, Chairman
Search Committee
c/o Director's Office
Institute of Marine Science
University of Alaska Fairbanks
Fairbanks, AK 99775-1080**

The University of Alaska is an Equal Opportunity/Affirmative Action Employer and Educational Institution. Your application for employment with the University of Alaska may be subject to public disclosure if you are selected as a finalist.

AUBURN UNIVERSITY THREE MOLECULAR GENETICS POSITIONS

The Department of Botany and Microbiology, College of Sciences and Mathematics, at Auburn University invites applications for three tenure-track positions at the assistant or associate professor level. Preference will be given to candidates who document abilities in molecular genetics/cellular biology in plant or microbial systems. Candidates will be expected to contribute to at least one of the principal areas of research involvement of the department. These include programs in molecular genetics and cell culture, and an emerging program in plant-microbial interactions in the rhizosphere. Applicants must have a Ph.D., a minimum of 1 year of postdoctoral training, and a strong background in microbiology or molecular biology. Responsibilities include development of a creative vigorous research program and participation in undergraduate and graduate level instruction. Applicants will be expected to actively seek extramural funding. Please submit curriculum vitae, transcripts, reprints of recent publications, a statement of professional goals/research interests, and three letters of recommendation to: **Bryan Truelove, Chairman, Search Committee, Department of Botany and Microbiology, Auburn University, AL 36849-5407, telephone: 205-826-4830.** These positions are available immediately; applications will be accepted until suitable candidates are found. *Auburn University is an Affirmative Action/Equal Opportunity Employer. Women and Minorities are Encouraged to apply.*

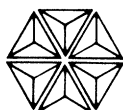
CELLULAR TOXICOLOGIST

The Pathology and Toxicology Department of Bristol-Myers Pharmaceutical Research and Development, located in Syracuse, NY is seeking a post-doctoral scientist to join its Cellular Toxicology section. The selected individual will develop in vitro methodologies for assessing mechanisms of toxicity either in the liver or in the haematopoietic system.

The successful candidate should have:

- Solid in-depth experience of cell/organ culture methods with one of the given organ systems.
- Experience with biochemical methods for assaying the functional status of either liver or haematopoietic cells in vivo and in vitro.
- Demonstrated flair for problem-solving using in vitro methodologies.

We offer a competitive compensation package and a comprehensive benefits program which includes relocation assistance to a superb upstate NY living area. Interested candidates should submit a resume with salary requirement, in confidence, to: **EMPLOYMENT MANAGER**



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RESEARCH AND
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P.O. Box 4755
Syracuse, New York 13221-4755

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AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

MANAGING DIRECTOR

The largest industrial hygiene organization in the U.S., the American Industrial Hygiene Association, located in Akron, Ohio, is searching for a managing director for this professional association serving 8,000 industrial hygienists, employing a staff of 30 individuals, and working with an annual budget in excess of \$3,000,000. The managing director is responsible for providing services to the AIHA membership; organizing and administering a national conference for 7,000 attendees and several hundred exhibitors; and providing support for an extensive publications and professional development program. Applicants for the position should have technical/scientific experience related to health protection problems, with preference for individuals with experience in industrial hygiene, a cognate graduate degree, and relevant professional certification. The applicant must have extensive administrative and managerial experience in a technical organization. Applicants should write to Dr. William Krebs, Chairman, Search Committee, GM Corporation, Room 9-263, 3044 W. Grand Blvd., Detroit, MI 48202, indicating their relevant professional training, experience, salary requirements, and references. All applications will be held in strict confidence.

PROJECT MANAGERS Pharmaceuticals

Adria Laboratories, a rapidly expanding pharmaceutical company, is moving aggressively to meet R&D challenges in the development of human pharmaceuticals. As we undertake major research expansions, we seek project management professionals to oversee multidisciplinary project teams.

You will play a vital role in managing team members from Adria's R&D regulatory and marketing divisions in the planning, implementation, and completion of projects which will produce ANDA's and NDA's. Position qualifications include advanced degree or comparable experience, proven record of leadership accomplishments in a similar position within the pharmaceutical industry, with additional experience in R&D, regulatory affairs, or marketing.

This unique opportunity will position you for visibility and advancement on a management team that turns good ideas into reality, while Adria's Columbus, Ohio location surrounds you with an affordable and enviable quality of life. Adria's extreme financial strength allows us to offer an excellent salary and benefits package. To investigate Adria's growth and your ability to grow with us, send resume which must include current salary level to: **Adria Laboratories, Staffing—JWK, P.O. Box 16529, Columbus, OH 43216.** An Equal Opportunity Employer M/F/H/V.



ADRIA LABORATORIES

Biochemist/ Molecular Biologists PhD/MS/BS

Atherosclerosis and Thrombosis Research

OUR WALLINGFORD, CONNECTICUT WORLD HEADQUARTERS is an advanced, multi-million dollar setting for pharmaceutical research. Interdisciplinary cooperation is encouraged. The opportunities for professional advancement and recognition are exceptional.

PhD—As a PhD Biochemist or Molecular Biologist, you can enjoy a high-visibility role exploring the development and treatment of atherosclerosis at the molecular level. Prior experience with lipoprotein receptors is extremely valuable.

MS/BS—The Biochemists and Molecular Biologists we are seeking will function as members of the research team for the discovery of agents to treat atherosclerosis and thrombosis. Requires 1–5 years experience.

BRISTOL-MYERS OFFERS sustained growth, highly competitive salaries, extensive benefits and career support. Our countryside location is convenient to New Haven and Hartford, Connecticut, New York City and New England. Please send resume with salary history to: **BRISTOL-MYERS COMPANY, Pharmaceutical Research & Development Division, Attn: HR1, P.O. Box 5100, 5 Research Parkway, Wallingford, CT 06492.**

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**DEPARTMENT CHAIRPERSON
MICROBIOLOGY AND CELL SCIENCE
THE UNIVERSITY OF FLORIDA**

The University of Florida is seeking applicants for the Chairperson of the Department of Microbiology and Cell Science, the primary basic sciences department in the College of Agriculture, Institute of Food and Agricultural Sciences.

The Department of Microbiology and Cell Science is responsible for the largest undergraduate major in biological sciences at the University of Florida, and includes strong graduate education and research programs.

The successful candidate will be expected to have an earned doctorate in Microbiology or related field, to lead an expanding Department in the pursuit of excellence, and to maintain an active research program.

We invite nominations of, or applications from individuals with a strong record of achievement in scholarship and research.

Interested individuals should provide a letter of application, a curriculum vitae, a brief description of current activities, and a list of three or more colleagues from whom letters of reference may be solicited.

Address all correspondence concerning this position to: Lonnie O. Ingram
Search Committee Chairman
1059 McCarty Hall
University of Florida
Gainesville, Florida 32611

The closing date for applications is May 15, 1988. The University of Florida is an Affirmative Action/Equal Opportunity Employer.

**Senior Epidemiologist/
Senior Clinical
Research Scientist**

Division of Infectious Diseases

Beth Israel Medical Center, a 932-bed major NYC teaching hospital affiliated with the Mount Sinai School of Medicine, has an opening for a Senior Epidemiologist to join a dynamic division of infectious diseases. Professional duties will include the coordination, development, and implementation of clinical trials in AIDS and epidemiologic studies of HIV infection. The individual will design and develop data collection instruments, carry out data analysis, prepare manuscripts for publication of study results and prepare grant proposals.

Successful candidate should have a Ph.D. in Epidemiology or equivalent background. Experience in the following: management of clinical research monitoring, protocol development, biostatistical methodology and computer applications. Excellent salary and benefits. Send c.v. to: Human Resources Department, Beth Israel Medical Center, First Avenue at East 16th St., New York, NY 10003. An Equal Opportunity Employer.

**BETH ISRAEL
MEDICAL CENTER**

Pharmacologist

California Biotechnology Inc., is seeking a Pharmacologist to assume responsibility as a Scientist in our Biological Testing Department.

The successful candidate will have a Ph.D. in Pharmacology or a related discipline, and up to 3 years' experience in pharmacokinetics and protein drug metabolism. Training and experience in novel drug delivery or dosage form development are preferred.

We are a leading biopharmaceutical company engaged in the development of human therapeutics. We offer a stimulating research environment with a competitive compensation and benefits package. Please submit your curriculum vitae with the names of three references to: California Biotechnology Inc., Human Resources MF-CK, 2450 Bayshore Parkway, Mountain View, CA 94043. We are an equal opportunity employer.

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SCIENTISTS

Biogen is a recognized leader in the application of Biotechnology to the development of human therapeutics. The company is expanding its laboratory facilities in Cambridge, Massachusetts, and has positions open for Scientists trained in...

Chemistry

Candidates for the Chemistry position should have specialization in synthesis, purification and analysis of biologically active peptides. The successful candidate will have a strong background in synthetic organic chemistry and a minimum of two years of experience in automated, as well as manual, synthesis of peptides, HPLC purification and analysis.

Cell Biology/ Immunology

Applicants for the Cell Biology/Immunology position should have training in viral immunology or regulation of inflammatory and immune responses.

Protein Chemistry

Candidates for Protein Chemistry should have experience in protein purification, structural protein chemistry, enzymology or the study of glycoprotein chemistry.

Molecular Biology

Molecular Biology candidates should have experience in any of the following areas; molecular biology-based studies of inflammation; isolation and analysis of differentially expressed genes from animal or cellular systems; expression of foreign protein from yeast, *E. coli*, or mammalian cells.

CV's should include a list of publications and three professional references.

Biogen offers an excellent compensation and benefits package. Please send your resume to the Dept. SS SCI—1/88, Human Resources.

Biogen

14 Cambridge Center, Cambridge, MA 02142

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APPLIED ECOLOGISTS

Applied ecologists are being recruited to participate in long-term research and monitoring programs at several work locations. Research programs include: studies of the effects of energy related development on three endangered species at the Elk Hills Naval Petroleum Reserve, CA; studies of the effects of military training activities on San Joaquin kit fox at Camp Roberts, San Luis Obispo County, CA; and studies to characterize the possible site of a radioactive waste repository at Yucca Mountain, Nevada. Tasks will include field work, data analysis, preparation of topical reports and scientific articles, and development of sponsor relations to maintain existing programs and to initiate new programs in areas of expertise. The following positions are sought:

PLANT ECOLOGIST/ RECLAMATION SPECIALIST

Will participate in studies of soils and floral associations, interdisciplinary floral/faunal studies, and surveys for endangered species or candidates. Will also help develop policies and guidelines and implement a habitat reclamation program. Work location is Las Vegas, Nevada. Refer to requisition 88-04.

ANIMAL ECOLOGISTS

I) Will participate in field studies to determine the distribution and abundance of San Joaquin kit foxes on Camp Roberts, gather information on population dynamics and life history, assess the effects of military activities, and develop and implement conservation strategies. Work location is San Luis Obispo, California. Refer to requisition 88-02-01.

II) Will participate in studies designed to monitor the population dynamics of San Joaquin kit foxes on the Elk Hills Naval Petroleum Reserve, conduct research to determine factors affecting population levels, and to develop and implement conservation strategies. Work location is Bakersfield, California. Refer to requisition 88-02-02.

III) Will participate in field studies that initially emphasize small mammals, desert tortoises and other reptiles, birds, and carnivores; and later focus on movements of mule deer and wild horses, and the distribution and abundance of invertebrates. Work location is Las Vegas, Nevada. Refer to requisition 88-03.

Advanced degree plus additional experience preferred, but minimum requirements are a B.S. degree or equivalent experience/training. Selections will be made at a level commensurate with the extent of demonstrated prior experience designing, managing and participating in comparable field studies, supervising technical staff, developing new programs, familiarity with environmental laws and compliance, and authorship of scientific articles or research reports.

Candidates must provide separate resumes and requisition numbers for each position. Send resume to:



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Santa Barbara Operations

Attn: Technical Recruiting

130 Robin Hill Road

Goleta, California 93117

We require a pre-employment physical examination which includes drug and alcohol screening. U.S. Citizenship Required. An Equal Opportunity Employer.

GRADUATE TRAINING PROGRAM

GRADUATE RESEARCH ASSISTANTSHIPS IN NUTRITIONAL SCIENCES UNIVERSITY OF FLORIDA

The Center for Nutritional Sciences offers a program of graduate training with assistantships available through funds from the Pew Charitable Trusts. Research may be undertaken in an interdisciplinary program or in one of several departments. The Pew Center of Excellence in Nutrition at Florida involves faculty from the Institute of Food and Agricultural Sciences, Colleges of Medicine and Veterinary Medicine and College of Liberal Arts and Sciences. The full spectrum of research in the nutritional field is represented.

Assistantships provide a 12-month stipend of \$12,000 and fee waivers. Applications should be completed by 15 March 1988. Preference will be given to applicants for Ph.D. programs. A limited number of applicants will be invited to the campus for interviews. For application forms and further information contact:

Dr. Robert J. Cousins, Director
Center for Nutritional Sciences
201 FSB, University of Florida
Gainesville, FL 32611

GRANTS

GRANTS AND POSTDOCTORAL FELLOWSHIPS FOR BASIC RESEARCH RELEVANT TO HUNTINGTON'S DISEASE

Application forms can be obtained from:

Hereditary Disease Foundation
606 Wilshire Boulevard, Suite 504
Santa Monica, CA 90401

THE ROGER TORY PETERSON INSTITUTE OF NATURAL HISTORY will award **GRANTS** from \$500 to \$5,000 for research in the areas of geology, biological sciences, and natural history. Deadline for applications is 31 March 1988. For information contact: **The Roger Tory Peterson Institute**, 110 Marvin Parkway, Jamestown, NY 14701. Telephone: 716-665-2473.

TRAINEESHIP

POSTDOCTORAL TRAINEESHIPS at the University of Virginia in cell biology, molecular biology, virology, and immunology supported by the National Cancer Institute. Competitive stipends and fringe benefits. Primary research interests (and supervisors) include: (i) immunoglobulin molecular genetics (**Bender**); (ii) molecular basis of immune interactions (**Benjamin**); (iii) cell and adenovirus transcription regulation (**Beyer**); (iv) viral structure and membranes (**Brown**); (v) molecular immunology of allergens (**Chapman**); (vi) molecular basis of papilloma transformation (**Crum**); (vii) molecular biology of histocompatibility gene expression (**Engelhard**); (viii) venoms and protein structure/sequencing (**Fox**); (ix) bacterial genetics/recombinant DNA (**Kadner**); (x) *c-myc* transformation/growth regulation (**S. Parsons**); (xi) oncogene retrovirus recombinants and mutagenesis (**T. Parsons**); (xii) molecular organization and genetics of bacterial membranes (**Schnaitman**); (xiii) yeast histone molecular biology and budding (**Smith**); (xiv) molecular biology of leukemogenic viruses (**Thomas**); (xv) tetanus toxin plasmids and monoclonal antibodies (**Volk**); (xvi) molecular biology of viral membrane proteins (**Wagner**); (xvii) molecular events in viral transformation (**Weber**).

Applications: Send curriculum vitae, description of research interests, and letters from three references to: **Dr. Robert R. Wagner, Chairman, Department of Microbiology, Box 441, University of Virginia Medical School, Charlottesville, VA 22908.**

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PREDOCTORAL NIH TRAINEESHIPS (tuition waiver and monthly stipend) for study of molecular mechanisms of toxicity leading to the Ph.D. for U.S. citizens with undergraduate degrees in physical or biological sciences. Graduates have a variety of exciting career options in basic or applied research and risk assessment. **Dr. W. N. Piper, Director, Toxicology Program, 1620A SPH-1, 109 South Observatory Street, University of Michigan, Ann Arbor, MI 48109.** *An Equal Opportunity/Affirmative Action Employer.*

PROGRAM

GRADUATE PROGRAM

Doctoral program in microbiology seeks quality candidates to study molecular genetics, cell biology, virology, immunology, microbial biochemistry, biotechnology, and applied and environmental microbiology in a cooperative program between Rutgers, The State University of New Jersey and the University of Medicine and Dentistry of New Jersey. Seventy faculty from various university departments and research centers and institutes participate in the program to provide excellent research training and employment opportunities. Fellowships, assistantships, and scholarships provide up to \$10,000 stipend plus tuition to qualified applicants on a competitive basis. Contact: **Dr. Alan D. Antoine, Graduate Program in Microbiology, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 201-932-9881. An Affirmative Action/Equal Opportunity Employer.**

TRAINING PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 14, 424 Beacon Street, Boston, MA 02115.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP

Applications are invited for the E. E. Selkurt Postdoctoral Fellowship in the Department of Physiology and Biophysics, Indiana University School of Medicine. We are seeking a promising young investigator with a Ph.D. and/or M.D. degree to work in the areas of excitation-contraction coupling (**C. S. Hui**), insulin action (**Daniel Peavy**), neural transplantation (**Walter Low**), renal transport (**Stephen Kempson**), or smooth muscle contraction (**Joe Haeblerle, Richard Meiss**). Appointment will normally be for 2 years. Send résumé, outline of future plans, and names of three references by 15 May 1988 to: **The Selkurt Fellowship Committee, Department of Physiology and Biophysics, Indiana University School of Medicine, Indianapolis, IN 46223.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP—Section of Molecular Genetics, Boston University. The work will involve regulation of expression of genes involved in cholesterol metabolism. Protein characterization and/or recombinant DNA skills are desirable. Salary will depend on qualifications. Write to: **V. Zannis, Molecular Genetics, R415, Boston University Medical Center, 80 East Concord Street, Boston, MA 02118 or call: 617-638-5077.**

CLINICAL HYPERTENSION FELLOWSHIP—Position available July 1988 to 1989. Combined University and VA center program in Central New Jersey. Excellent clinical experience in the evaluation and management of primary and secondary forms of hypertension. Extensive clinical research opportunities available relating to biochemical mechanisms and clinical pharmacology of hypertension. Option to combine with traditional nephrology training program. Send curriculum vitae to: **Michael C. Ruddy, M.D., Section of Hypertension, University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School, CN 19, Room 372, New Brunswick, NJ 08903-0019.** *An Equal Opportunity/Affirmative Action Employer M/F/H/V.*

FELLOWSHIP IN CELL-MICROCIRCULATORY PHYSIOLOGY. A position is available 1 July 1988 for the study of cell-cell communication in microvessels. Applicants should have an advanced degree in physiology, pharmacology, or cell biology. Training in electron microscopy, electrophysiology, or cell-cell communication is desirable. Applicants should send letters of recommendation and résumés to: **Dr. Brian R. Duling, Department of Physiology, School of Medicine, Box 449, Charlottesville, VA 22908.** *We are an Equal Opportunity Employer.*

FELLOWSHIPS

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara Mutual Aid Fund, a non-profit-making organization within the Hayashibara Group announces a fellowship program. Two awards will be made annually. Fellowship will be taken up at the newly opened Fujisaki Cell Center which is devoted to basic and applied research related to problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. The awards are for high quality research work in one of the three categories described below.

- 1) Fundamental Leukemia-Lymphoma Research,
- 2) Cytokine-Lymphokine Research,
- 3) Hematopoietic Cell Cultures.

Qualified person who has a Ph.D., an M.D. or equivalent qualifications will be awarded on merit to suitably qualified research proposal and experiences. Additional information and application forms will be obtained from **Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.**

POSTDOCTORAL FELLOWSHIP available to study human colon carcinoma cell differentiation both in resected tumors and in cell line models, for 2 years, starting at \$25,000 per year plus fringe benefits beginning 1 July 1988. Candidates with a Ph.D. in cell biology or biochemistry preferred. Send curriculum vitae and two letters of reference to: **Eileen Friedman, Ph.D., Memorial Sloan-Kettering Cancer Center, Laboratory of Gastrointestinal Cancer Research—Box 5614, 1275 York Avenue, New York, NY 10021.**

UNIVERSITY OF FLORIDA

Two- to 3-year **POSTDOCTORAL FELLOWSHIP** to clone and characterize genes associated with spermatogenesis in a laboratory dedicated to human Y chromosomal molecular genetics. Send curriculum vitae and names of three references to: **H. Ostrer, M.D., Pediatric Genetics, Box J-296, JHMHC, University of Florida, Gainesville, FL 32610-0296.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP—in molecular biology of genes expressed in connective tissues with special emphasis on mutations that produce genetic diseases. Opportunities will be provided to learn current recombinant DNA technologies and to develop new ones. Applicants must have Ph.D. in biochemistry or related areas. Salary competitive. Apply to and send letters of recommendation to: **D. J. Prockop, Jefferson Institute of Molecular Medicine, Department of Biochemistry, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107.** *Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP MOLECULAR CELL BIOLOGY

A postdoctoral position is available for studies on the expression of the macrophage mannose receptor and the application of site-specific mutagenesis to the mechanism of receptor-mediated endocytosis. Standard NIH salary and fringe benefits available. Ph.D. or M.D. and appropriate experience required. Send curriculum vitae and names of three references to:

Dr. Philip D. Stahl
Department of Cell Biology and Physiology
Washington University
School of Medicine
660 South Euclid Avenue—Box 8101
St. Louis, MO 63110

POSTDOCTORAL FELLOWSHIPS

Postdoctoral fellowships, supported by National Institute of Drug Abuse Training Grant, are available for fundamental research in drug abuse. Areas include behavioral, biochemical, clinical, and molecular pharmacology. Drug groups include narcotics, cocaine, nicotine, solvents, minor tranquilizers, and hallucinogens. Applicants must be citizens or permanent residents of the United States. For further information contact: **Dr. Jean M. Bidlack, Department of Pharmacology, University of Rochester, School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, NY 14642.** *Equal Opportunity Employer M/F.*

AIDS Research Opportunities at Smith Kline & French Laboratories

SmithKline Beckman has a strong commitment to research on AIDS. The research efforts of the corporation are being undertaken on a worldwide basis to include activities encompassing novel reagents for diagnostic testing, vaccines for prophylaxis and novel therapeutic drugs for treatment of the disease.

A multidisciplinary research group has been established at SK&F's Research and Development Laboratories with partial support from the National Institutes of Health to undertake research on the expression, purification and functional characterization of human immunodeficiency virus proteins and on structural bases of their molecular and cellular actions.

We are seeking individuals for positions as senior staff, postdoctoral scientists and research associates (BS, MS) to work in the following areas:

- **MOLECULAR GENETICS** - Experience in recombinant DNA Technology and gene expression/regulation in prokaryotes is desired.
- **PROTEIN PURIFICATION AND PROCESSING** - Experience with innovative methods for purification and characterization of proteins, receptor-ligand interactions and structure-function studies.
- **MACROMOLECULAR STRUCTURE, FUNCTION AND DESIGN** - Scientists with backgrounds and interests in analysis and redesign of protein recognition, receptor characterization and interaction, proteolysis and enzyme action and sequence and structure-function analysis.
- **X-RAY CRYSTALLOGRAPHY** - Scientists with backgrounds and/or interests in protein and small molecule X-ray crystallography and macromolecular structure.
- **NUCLEAR MAGNETIC RESONANCE** - Applicants should have experience in high field 2D NMR methods and their application to the structures of macromolecules and ligand/macromolecule interactions.
- **MASS SPECTROMETRY** - Individuals with experience in application of mass spectrometry to oligosaccharides and proteins and good background in analytical biochemistry are preferred.
- **IMMUNOLOGY AND CELL BIOLOGY** - Candidates with knowledge of lymphocyte biology and cellular immunology with special reference to the isolation and characterization of lymphocyte surface receptors and biochemistry of lymphocyte activation are desired.

Excellent facilities are available at SK&F's new research center located near Valley Forge, PA. The facilities include an X-ray crystallography laboratory with an Enraf-Nonius CAD-4 system, a rotating anode generator, a Supper precision camera and a Xenonics multiwire area detector, a dedicated VAX-785 computer and access to PS-300 computer graphics systems. The mass spectrometry facility consists of three Finnigan-MAT quadrupole spectrometers, a VGZAB-1F high resolution high mass range instrument and a VG ZAB-SE 4F tandem mass spectrometer equipped for operation at ultra-high mass range. The NMR laboratory has available for this research two 400 MHz and a 500 MHz instrument, off-line processing using a micro VAX linked to a VAX cluster 8700, 8650(2) and 785(4) via Ethernet. Advanced facilities for research employing flow cytometry, protein biochemistry and molecular genetics are available.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please forward your C.V. and names of three references to: Robert F. Obst, Manager, Personnel Relations, R0122, Smith Kline & French Laboratories, Research and Development Division, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

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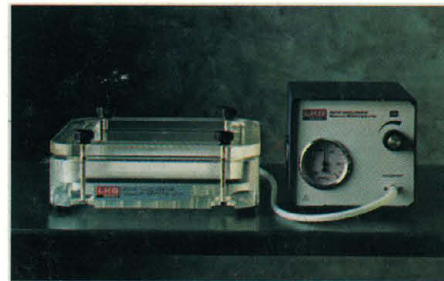
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For more information about the VacuGene system, please ask your local Pharmacia-LKB representative for a brochure. It's time to stop cutting paper. Cut blotting time instead.



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