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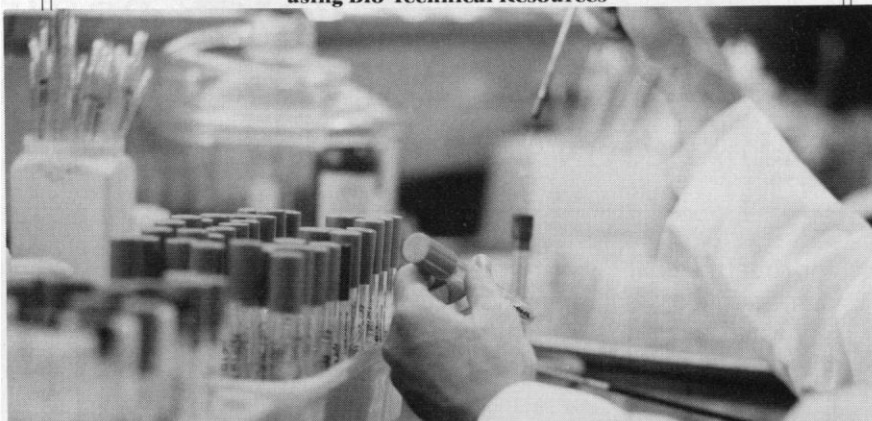
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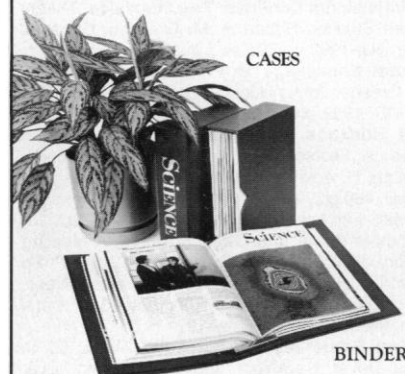
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edited by ERIC SEABORG

Flow Cytometer and Cell Sorter

PAS-III, a flow cytometer and cell sorter, combines arc lamp and laser excitation. The design allows high resolution measurements of cellular DNA content to be combined with high sensitivity laser flow cytometry for antibody analysis. A piezo-controlled cell-sorting option avoids any hazard to the lab staff if infectious material is handled. A built-in computer maintains a real-time display while measuring or sorting. Partec GmbH. Circle 87.



DNA Sequencing Software

DNAscan is a DNA sequencing software package that can acquire images of autoradiograms from the high-resolution scanners of the manufacturer's MasterScan-II systems or can import images in a variety of formats from external sources. DNAscan rapidly generates the base sequence from autoradiograms or other DNA sequencing gel images with only limited operator involvement. High-resolution image acquisition combined with sophisticated background correction, automatic lane tracking, and Gaussian deconvolution of overlapping bands yields accurate sequence output to the limits typically read by eye. Results are rapidly exported to standard sequence analysis packages. Scanalytics/CSPI. Circle 90.

Monoclonal Antibodies

This monoclonal antibody (MAb) reacts specifically with human progesterone receptor. It is suitable for immunohistochemical staining of formalin-fixed, paraffin-embedded, or frozen tissue sections. In breast carcinoma, specific staining is restricted to the nucleus of carcinoma cells and nonmalignant hyperplastic mam-

mary epithelium. BioGenex Laboratories. Circle 91.

This MAb reacts specifically with terminal deoxynucleotidyl transferase, an enzyme normally found in a subpopulation of cortical thymocytes and bone marrow lymphocytes. It reacts in formalin-fixed, paraffin-embedded tissue, frozen tissue sections, and cytopins. BioGenex Laboratories. Circle 92.

This MAb reacts with the 6.5-kD estrogen-inducible protein designated pS2 in formalin-fixed, paraffin-embedded, or frozen tissue sections. The protein may be useful in breast cancer studies. BioGenex Laboratories. Circle 93.

MAb 19A2 reacts specifically with human proliferating cell nuclear antigen (also known as cyclin), a 36-kD nuclear protein that serves as an adjunct to DNA polymerase delta and performs a fundamental role in the initiation of cell proliferation. BioGenex Laboratories. Circle 94.

Glycobiology Preparation System

The first and most difficult step in glycoprotein characterization is to obtain an authentic, pure, and intact pool of glycans from the

glycoprotein under study. The reactions and chromatographic procedures of this step are fully automated by the GlycoPrep 1000 glycan release and preparation system. The GlycoPrep 1000 automates hydrazinolysis of up to two sample glycoproteins with conditions optimized for the non-selective release of both N- and O-glycans. A separate "O" mode is available for the selective release and recovery of O-glycans. The pool of intact N- and O-glycans—with free reducing termini and in the same molar proportions as in the sample glycoprotein—are available to the operator after an overnight run. Oxford GlycoSystems. Circle 95.

Literature

Products for the Study of Immunology lists cytokines, growth factors, monoclonal and polyclonal antibodies, and enzyme-linked immunosorbent assay kits. BioSource International. Circle 96.

PERX Catalog of Engineering and Scientific Solutions features products from more than 100 suppliers, with hardware and software product recommendations in data acquisition, design automation, and test instruments. PERX. Circle 97.

Put a Totally New Measure of HPLC Sensitivity, Reliability, and Reproducibility in Your Lab is a brochure on the new LC-10A series of high-performance liquid chromatography equipment. Shimadzu Scientific Instruments. Circle 98.

Mass Analysis for Detecting Side Products in Synthetic Peptides is a paper detailing how plasma desorption mass spectrometry can simplify and speed up the identification of the sequence and structure of synthetic peptides. Applied Biosystems. Circle 99.

Extracellular Matrix Catalog offers an extensive line, including laminins, vitronectins, proteoglycans, integrins, tenascin, fibronectins, and collagens. Telios Pharmaceuticals. Circle 100.

Diode Array Detector

The LC-235C Diode Array Detector provides the ability to collect up to 1000 spectra per run and store up to 25 spectra in the instrument's spectral library. The spectral handling of the instrument enhances the performance of complex chromatographic runs such as peptide mapping or purity assays of recombinant proteins and expands the number of compounds that can be identified through spectral comparison without a computer. Spectral data manipulation is further expanded with a spectral subtract function coupled with automatic acquisition of baseline spectra, allowing easy, efficient baseline subtraction. Perkin-Elmer. Circle 88.

Carcinogenicity Prediction Software

OncoLogic is a software service that evaluates chemicals for their potential to cause cancer. Applying rules developed by the Environmental Protection Agency (EPA) based on structure-activity relationships, mechanisms of action, and human epidemiological studies, the software can apprise the user of how the EPA would view the carcinogenic potential of a substance. It is available as a service, license, or lease. LogiChem. Circle 89.

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

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POSITIONS OPEN

BIOLOGY ASSISTANT PROFESSOR: The Department of Biological Sciences at Louisiana State University in Shreveport (LSUS) invites applicants for a tenure-track faculty position in plant molecular biology. The position will be available in the fall of 1992 subject to the normal legislature funding process. Area of specialization is open but candidates should have experience in recombinant DNA and immunochemical techniques. We are particularly interested in candidates using molecular methodology to solve problems in stress physiology. Ph.D. required. Postdoctoral experience preferred but not required. Responsibilities will include teaching introductory and advanced undergraduate level biology courses, developing an ongoing research program involving undergraduates and collaborating with other LSUS faculty. Send curriculum vitae, three letters of reference, and statement of teaching and research interest to: **Dr. Dalton R. Gossett, Chairman, Department of Biological Sciences, LSU-Shreveport, One University Place, Shreveport, LA 71115.** An Affirmative Action/Equal Opportunity Employer.

DEVELOPMENTAL BIOLOGY/VERTEBRATE PHYSIOLOGY, ASSISTANT PROFESSOR OF BIOLOGY. The Biology Department at Moorhead State University invites applications for a tenure-track or fixed-term position in developmental biology/vertebrate physiology beginning September 1992, pending funding. Teaching responsibilities will include undergraduate courses in vertebrate physiology, human physiology and other areas appropriate to the needs of the department. The successful candidate will be required to maintain a research program which encourages participation by undergraduate students. Candidates must be broadly trained in developmental biology/vertebrate physiology. A Ph.D. is required for tenure-track appointment. Salary is dependent on qualifications and experience. Contact: **Dr. R. H. Pemble, Department of Biology, Moorhead State University, Moorhead, MN 56563.** Telephone: 218-236-2330, for application materials and additional information. Screening of completed applications will begin 15 May 1992 and continue until the position is filled. *Moorhead State University is an Equal Opportunity/Affirmative Action Educator and Employer.*

INDIAN INSTITUTE OF SCIENCE BANGALORE-560 012, INDIA

Requires **ASSISTANT PROFESSORS** in biological sciences in the area of: protein chemistry/engineering, molecular endocrinology/immunology; reproductive biology, genetics and developmental biology; biomembranes/bioenergetics, molecular biology/genetic engineering and neurobiology.

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Indian citizens with Ph.D. and 5 years of postdoctoral experience may send applications to: **Professor G. Padmanaban, Chairman, Division of Biological Sciences, Indian Institute of Science, Bangalore-560 012, India, enclosing biodata and future research planned. Three referees may be requested to send recommendation letters directly to Professor G. Padmanaban.**

UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS

A tenure-track **ASSISTANT PROFESSOR** position is open for applicants having a Ph.D. and/or M.D. degree with at least 2 years of postgraduate experience. The successful candidate will be expected to develop an independent research program, teach professional and graduate students and contribute to other academic activities. Position offers a competitive salary and laboratory start-up package. The department is interested in strengthening research in neuropharmacology with molecular and structural biology approaches although all candidates with strong scientific credentials are encouraged to apply. Application deadline is 31 May 1992. Applications including names of three references should be sent to: **Dr. Fulton T. Crews, Chairman of the Search Committee, University of Florida, Department of Pharmacology, P.O. Box 100267, Gainesville, FL 32610.** *The University of Florida is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.*

POSITIONS OPEN

FACULTY POSITION NORTHWESTERN UNIVERSITY SCHOOL OF DENTISTRY

Northwestern University is seeking applications for a full-time, tenure-track position at the **ASSISTANT PROFESSOR** level in its **DIVISION OF DIAGNOSIS**. Responsibilities include teaching at the predoctoral and postdoctoral levels, patient care and research. Applicants must have dental degree and demonstrated ability to manage patient care in a clinical setting. It is desirable that the candidate have advanced training and education beyond the first professional degree. Curriculum vitae (including a list of three references) should be directed to: **Dr. Peter Robinson, Chair, Search Committee, Northwestern University, School of Dentistry, 240 East Huron, Chicago, IL 60611.** *Northwestern is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

SENIOR STAFF (ASSISTANT PROFESSOR EQUIVALENT) OR POSTDOCTORAL FELLOWSHIP (depending on qualifications) available immediately to study regulatory mechanisms and functions of small molecular weight GTP binding proteins (RAS superfamily). Particular emphasis on the roles for these proteins in protein secretion in mammals and yeast. Experience in nucleotide binding or protein secretion fields preferred. Send curriculum vitae and names of three references to: **Richard A. Kahn, Ph.D., Laboratory of Biological Chemistry, National Cancer Institute, NIH, Building 37, Room 5D-02, 9000 Rockville Pike, Bethesda, MD 20892.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS IMMUNOLOGY/MOLECULAR BIOLOGY

The Department of Microbiology of the Chicago College of Osteopathic Medicine seeks applicants for two tenure-track positions at the level of **ASSISTANT PROFESSOR**. One position is available for a cellular immunologist and a second position is available for a molecular biologist. Applicants must have a Ph.D. or equivalent, a minimum of 2 years of postdoctoral training, and a commitment to excellence in both teaching and establishment of a rigorous research program capable of attracting extramural funding. Ability to teach medical microbiology is desirable. Preference will be given to those applicants with research specialties in T-cell immunology or eukaryotic molecular biology. Send curriculum vitae, names of at least three references, and a statement specifying teaching interests and research plans to: **J. R. Burdick, Ph.D., Chairman, Department of Microbiology, Chicago College of Osteopathic Medicine, 555 31st Street, Downers Grove, IL 60515.** *Affirmative Action/Equal Opportunity Employer.*

BIOCHEMIST/ASSISTANT PROFESSOR

A full-time, tenure-track position is available for a basic scientist with an earned doctorate in biochemistry and with courses in physiology, pharmacology, or microbiology to participate in the teaching of biochemistry and second discipline to freshman medical students. Development of a research program is expected. One to two years of postdoctoral experience is desirable. Applicants should send curriculum vitae and names/address/phone numbers of three references before 30 May 1992 to: **B. H. Ragatz, Ph.D., Chair, Search Committee, Fort Wayne Center For Medical Education, Indiana University School of Medicine, 2101 Coliseum Boulevard East, Fort Wayne, IN 46805.** *Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor, M/F.*

ASSISTANT PROFESSOR, CELLULAR/MOLECULAR BIOLOGY. A Ph.D. with demonstrated expertise and previous research in cellular/molecular biology with a special interest in growth, nutrition, or reproductive physiology is required. A background in dairy, postdoctoral experience, and demonstrated grantmanship abilities are preferred. Screening begins 15 May 1992. For complete position announcement and application procedures, write to: **Dr. Dale Redmer, Search Committee, Animal and Range Sciences Department, North Dakota State University, Fargo, ND 58105.** *Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Opportunities.

Listed below are a few of the excellent opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

Bacteriology and Immunology **Bascom Anthony, MD**

Bacterial and allergenic diseases in humans are studied to obtain data on the safety, purity, potency, and effectiveness of bacterial and allergenic biological products. Research is also being conducted on the interaction of bacteria with cultured cells and on new techniques to study *in vitro* functions of immunized cells. Fellows will also have the opportunity to participate in regulatory activities, such as the review of clinical trials. Division of Bacterial Products (OE-10), CBER/FDA, MO47, Building 29, Room 104, 8800 Rockville Pike, Bethesda, MD 20892.

Cell Biology/Biochemistry **James T. Russell, PhD**

Cytoplasmic calcium transients in neuronal and glial cells are being studied using fluorescence microscopy and video image processing. In addition, the molecular mechanisms of neurotransmitter release are being examined by characterization of the proteins of synaptic vesicles and plasma membranes. Background in intracellular calcium signalling mechanisms and/or neuronal secretory mechanisms is preferred and experience in biochemistry and cell biological methods is required. Laboratory of Developmental Neurobiology (OE-10), NICHD, Building 36, Room B316.

Molecular Biology of Drug Resistance **Michael Gottesman, MD/Ira Pastan, MD**

The molecular biology of drug resistance in human cancers and the mechanism of drug transport by the multidrug transport protein are being studied. Biochemical or molecular biology experience required. Laboratory of Molecular Biology (OE-10), NCI, Building 37, Room 4E16.

Neurobiology **Brent Stanfield, PhD**

Neuroanatomical techniques, tissue culture, and electron microscopy are being used to study anatomical aspects of the development of mammalian neocortex. At least two years of postdoctoral experience are required for this position. Animal Center (OE-10), NIMH, PO Box 289, Poolesville, MD 20837.

Signal Transduction **Robert J. Hohman, PhD**

IgE receptor-mediated signal transduction in mast cells is being examined by two complementary approaches: (1) the activation of phospholipase C in response to receptor aggregation; and (2) the inhibition of activation of mast cells by cyclosporin A and FK 506. Experience in enzymology, molecular biology, immunology, or cell biology is desirable. Laboratory of Clinical Investigation (OE-10), NIAID, Building 10, Room 11C215.

Virology **Albert Z. Kapikian, MD**

The pathogenesis of human and porcine rotaviruses is being studied in animal models and rotavirus strains of human and animal origin are being characterized using virologic and genetic techniques. Cold-adaptation, genetic reassortment and strain characterization studies are being used to develop new vaccine candidates for eventual human use. Laboratory of Infectious Diseases (OE-10), NIAID, Building 7, Room 103.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference via modem (1,3014922221). The settings for modem access are "7,Even,1". When connected to NIH, type in "vt100" at the connect message, "F5E" at initial, and "AJL1" at account. Those interested in receiving a catalog featuring descriptions of NIH research laboratories and other postdoctoral opportunities may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

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



National Institutes Of Health

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REGULATORY AND ENVIRONMENTAL SPECIALISTS

The Environmental Analyses Section in Oak Ridge National Laboratory's (ORNL) Environmental Sciences Division and the Integrated Analysis and Assessment Section in the Energy Division are seeking new staff with experience and interest in interdisciplinary analysis and assessment of environmental problems related to the major federal environmental laws - the Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act; Clean Air Act; Clean Water Act; Safe Drinking Water Act; Toxic Substances Control Act; and the National Environmental Policy Act (NEPA). Activities include regulatory tracking, review and analysis; training in environmental laws and regulations; environmental compliance auditing of major federal facilities; preparation of environmental documents; and staff support to federal agency offices in Washington. Responsibilities include opportunities for domestic and international travel. Excellent written and verbal skills are a must.

The Environmental Compliance Group is seeking environmental scientists or environmental engineers holding master's or doctoral degrees. Familiarity with federal and/or state environmental regulatory programs in hazardous waste, air pollution control, water pollution control, or Superfund remedial action is required. This background may be derived from appropriate academic course work (e.g. environmental law, environmental control technologies, etc.) and/or from experience in environmental compliance auditing, permitting or with a federal or state regulatory agency. Submit complete resumes to the attention of Fred Baes, MS 6036.

The Environmental Assessment Group is seeking terrestrial/wildlife and aquatic ecologists interested in application of the NEPA. The applicant should have a strong technical background in

ecological sciences or environmental sciences and environmental policy and previous experience with, or appropriate training in, compliance with environmental laws and regulations. Familiarity or experience with NEPA or state environmental policy acts is essential. Applicants with doctoral degrees are preferred. Submit complete resumes to the attention of Lorene L. Sigal, MS 6036.

The Integrated Analysis and Assessment Section is seeking experienced environmental scientists to lead and/or participate as part of interdisciplinary teams preparing environmental assessments and environmental impact statements under NEPA. Our assessment work covers a broad range of technologies, including nuclear, fossil, geothermal, hydro, waste management, and aerospace. Projects are located throughout the US and other countries. Applicants should have a strong technical background (MS or PhD) in a relevant discipline (e.g. environmental engineering, air or water quality, geosciences, social sciences, environmental sciences) and should be familiar and have experience with NEPA. Submit complete resumes to the attention of Robert M. Reed, MS 6200.

ORNL is managed by Martin Marietta Energy Systems, Inc. for the U.S. Department of Energy and offers competitive salaries, an excellent comprehensive benefits package, and is an equal opportunity employer. If you're an environmental professional with substantial regulatory, ecological or other relevant expertise and a dedication to environmental assessment and to achieving environmental compliance, consider joining us in Oak Ridge. Send your resume, noting appropriate individual's attention, to ORNL, Dept. SC, P.O. Box 2008, Oak Ridge, TN 37831.



POSITIONS OPEN

TENURE-TRACK FISHERIES SEARCH EXTENDED

The division seeks a junior scientist as **ASSISTANT PROFESSOR**. Applicants should have background in fisheries biology with strong training in quantitative methods applied to fishery research and management. The selected candidate will teach graduate statistics and population dynamics/modeling courses. The applicant should have ability to secure research funds and carry out independent research demonstrated by the quality of peer-review publications. Preference will be given to applicants who can develop interdisciplinary research programs in tropical fisheries. Applicants should send curriculum vitae, a summary of past experience and future research plans, and names of referees by 4 May 1992 to: **Chairman, Search Committee, Division of Marine Biology and Fisheries, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149. Telephone: 305-361-4177. FAX: 305-361-4600.** *The University of Miami is an Equal Opportunity/Affirmative Action Employer.*

SENIOR STAFF (ASSISTANT PROFESSOR EQUIVALENT) OR POSTDOCTORAL FELLOWSHIP (depending on qualifications) available immediately to study HIV transcriptional regulation and retroviral assembly mechanisms. Studies will focus on the cloning and characterization of cellular transcriptional factors and mechanisms of viral protein subcellular targeting and intracellular interactions. Experience in molecular biology and protein purification preferred. Send curriculum vitae and names of three references to: **Dr. R. L. Felsted, Laboratory of Biological Chemistry, Building 37, Room 5D-02, NIH, 9000 Rockville Pike, Bethesda, MD 20892.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSORS—PLANT PATHOLOGY—RESEARCH/EXTENSION. The Department of Plant Pathology, Iowa State University, invites applications for two tenure-track, 12-month positions:

70% RESEARCH, 30% EXTENSION. Develop a research program on diseases of soybeans, establish extension programs in soybean pathology, assist with extension activities on other agronomic field crops, and participate in graduate student training.

70% EXTENSION, 30% RESEARCH. Develop an extension program on diseases of agronomic crops, especially corn, soybeans, small grains, and forages. Research should focus on diseases of corn or other agronomic field crops of importance to Iowa. Participation in graduate student training is expected.

Qualifications for both positions include a Ph.D. degree in plant pathology or related field and excellent communication skills. Submit a letter of application, curriculum vitae (including a summary of research and extension experience), transcripts, selected reprints, and names of at least three references to: **Dr. Thomas C. Harrington, Chair, Department of Plant Pathology, 351 Bessey Hall, Iowa State University, Ames, IA 50011-1020.** Deadline is 30 June 1992 (or until position is filled). *Iowa State University is an Equal Opportunity-Affirmative Action Employer.*

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, in conjunction with the Agricultural Experiment Station, Michigan State University (MSU), invites applications for a tenure-track position at the assistant professor level. Candidates must hold a Ph.D. in physiology or biochemistry or have a D.O., D.V.M., or M.D. degree. Preference will be given to those individuals with at least 2 years of postdoctoral research experience, who show promise of developing an innovative and vigorous research program and whose interest complements the current faculty. Candidates should have a basic research interest in using molecular approaches to define growth factor and/or oncogene function in reproductive physiology/endocrinology. Candidates are expected to interact with faculty in animal science and human medicine. Applicants must be qualified to teach in the undergraduate, graduate or professional school courses offered by the department. Interested individuals should submit complete curriculum vitae and bibliography, and names and addresses of three references by 30 June 1992 to: **Dr. Sandra Haslam, Chairperson, Endocrinology Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824.** *MSU is an Equal Opportunity/Affirmative Action Institution.*

POSITIONS OPEN

FACULTY POSITIONS IN PHARMACOLOGY/TOXICOLOGY MEHARRY MEDICAL COLLEGE

Applications are invited for two full-time faculty positions at the **ASSISTANT PROFESSOR** level. Candidates must possess doctoral degree and postdoctoral experience. Preferred areas of expertise include, but are not limited to, neuroscience/neuropharmacology/neurotoxicology, cardiovascular and biochemical pharmacology. Successful applicants are expected to develop funded research programs and to teach medical, dental and graduate students. Opportunities are present for collaborative research. Please send curriculum vitae, a brief description of research plans, and the names of three professional references to: **Dolores C. Shockley, Ph.D., Chair, Faculty Search Committee, Department of Pharmacology, Meharry Medical College, 1005 D. B. Todd, Jr., Boulevard, Nashville, TN 37208. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION IN NEUROBIOLOGY DEPARTMENT OF BIOLOGY BOSTON UNIVERSITY

Applications are sought for tenure-track faculty position at the **ASSISTANT PROFESSOR** level in the area of neurobiology (anticipated starting date between September 1992 and September 1993). More senior candidates with established research programs will also be considered. Applicants should have potential for maintaining an active, externally funded research program and be qualified to teach an upper division course in neurophysiology. Preference will be given to candidates with broad training in biology who best complement current departmental interests in neurobiology which include developmental neurobiology, neuroendocrinology, neuroethology and neuroanatomy. Submit curriculum vitae, reprints, statement of current and proposed research interests, and at least three letters of recommendation to: **Dr. Ian P. Callard, Neurobiology Search, Department of Biology, Boston University, 5 Cummings Street, Boston, MA 02215.**

The policies of Boston University provide for Equal Opportunity and Affirmative Action in employment and admission to all programs of the university.

ASSISTANT PROFESSOR OF MEDICINE, Division of Molecular Medicine, Department of Medicine. Applicants must have M.D. and Ph.D. with experience in molecular biology and interest in atherosclerosis research. Send résumé to: **Alan Tall, M.D., Division of Molecular Medicine, Department of Medicine, Columbia University College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032.**

MEDICAL ONCOLOGIST— YALE UNIVERSITY SCHOOL OF MEDICINE SECTION OF MEDICAL ONCOLOGY

ASSISTANT PROFESSOR level. Primary appointment will be in internal medicine with a joint appointment to the Yale Comprehensive Cancer Center. Outstanding candidate with an M.D. or M.D., Ph.D. degrees committed to clinical research with a proven interest in developing and coordinating a Chemoprevention Unit. The faculty member will have both patient care and teaching responsibilities. Applicants should submit curriculum vitae by 31 May 1992 to: **William N. Hait, M.D., Ph.D., Chief of Medical Oncology, Yale University School of Medicine, P.O. Box 3333, 333 Cedar Street, New Haven, CT 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.**

VISITING ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY (RENEWABLE). The University of the Virgin Islands invites applications for this assignment which will include biochemistry, cell biology, introductory chemistry for nursing students and possibly other courses depending on background. Interest in undergraduate research required. Emphasis is placed on quality instruction. Salary range: \$34,679 to \$50,708. Application deadline is 15 May 1992. Late applications accepted until a candidate is selected. Send letter of application, résumé, official transcripts and three letters of recommendation to: **Dr. Denis F. Paul, Vice President for Academic Affairs, University of the Virgin Islands, Charlotte Amalie, St. Thomas, VI 00802. Equal Opportunity/Affirmative Action Employer.**



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

Research at the Glaxo Institute in Geneva is focused on discovering the molecular mechanisms of diseases of the CNS, allergies and inflammatory conditions. We have an outstanding opportunity for a

POSTDOCTORAL FELLOWSHIP IN ELECTROPHYSIOLOGY

**to study the function of recombinant
receptors and other proteins
expressed in primary neurons and cell lines**

The successful applicant will join an interdisciplinary team of neurobiologists who are studying neuronal function at the cellular and molecular levels. Candidates should have experience in whole cell voltage clamp or patch clamp techniques, and have an interest in learning new techniques for exogenous gene expression in neurons.

The Institute provides a dynamic international research environment and actively encourages collaborative projects with academic groups as well as the publication and presentation of results at scientific meetings. The Glaxo Institute is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to: **Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology, 14 chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.**

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, Michigan State University (MSU), invites applications for a tenure-track position at the assistant professor level. Applicants should have a minimum of 2 years of postdoctoral experience. The department seeks an individual with a strong record of achievements using modern approaches to neurophysiology to develop a vigorous research program. Research interests of the current faculty include the role of the cytoskeleton in neuronal growth, cellular mechanisms of autonomic ganglia, mechanisms of signal transduction, mechanisms of neuronal network formation, and sensory physiology. Opportunities for interactions exist with faculty in interdepartmental Programs in Neuroscience and Cell and Molecular Biology. The position provides a competitive salary and generous setup funds. Interested individuals should send current curriculum vitae, recent reprints and three letters of reference by 30 June 1992 to: Dr. Birgit Zipser, Chairperson, Neuroscience Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824. MSU is an Equal Opportunity/Affirmative Action Institution.

The University of Pennsylvania, Department of Dermatology, is expanding its investigative efforts. Applications are being accepted for: Ph.D.—CELL BIOLOGIST with an interest in plasminogen activator biology. Expertise with animal models of cutaneous inflammation, in situ hybridization and molecular methods essential. ASSISTANT RESEARCH PROFESSOR LEVEL, salary negotiable. Ph.D.—T-CELL IMMUNOLOGIST with an expertise in cutaneous T-cell lymphoma. Special skills should include cytokine biology, T-cell receptor cloning, and modulation of T-cell response by immunoregulators. ASSISTANT RESEARCH PROFESSOR LEVEL, salary negotiable. Reply to: Gerald S. Lazarus, M.D., Professor and Chairman, University of Pennsylvania, Department of Dermatology, 211 Clinical Research Building, 422 Curie Boulevard, Philadelphia, PA 19104-6142. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK FACULTY POSITIONS (ASSISTANT PROFESSOR, ASSOCIATE PROFESSOR AND PROFESSOR) UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

Applications are invited for positions of assistant professor (tenure track) in the Department of Pharmacology, Medical School. Successful candidates are expected to establish an outstanding independent research program, in addition to teaching, in the area of molecular pharmacology. Requirements include a Ph.D. in biochemistry, cell biology, molecular biology, pharmacology or related field, or an M.D., and 2 years of postdoctoral research experience. Candidates with a strong research background and experience using recombinant DNA technology for studying pharmacological problems and/or molecular biological problems are preferred. Applicants must have demonstrated involvement in quality research published in peer-reviewed journals.

Appointment as associate professor (tenured) or full professor (tenured) may be considered for applicants with professional distinction in published research and who have demonstrated effectiveness in teaching and advising and evidence of consistently attracting extramural funding for research. Appointment at these ranks must meet minimum qualifications established by the University of Minnesota. The above described areas of research and qualifications are also preferred for these candidates.

Applicants should indicate level of position they are applying for and send curriculum vitae, significant reprints, a statement of research plans, and three names for reference purposes to: Dr. J. W. Miller, Professor and Chairperson of Search Committee, Department of Pharmacology, 3-249 Millard Hall, University of Minnesota, 435 Delaware Street, S.E., Minneapolis, MN 55455. Deadline for receipt of applications is 15 May 1992.

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

POSITIONS OPEN

The University of California San Francisco (UCSF) is seeking a faculty member at the ASSISTANT PROFESSOR level to head the Core Laboratory of the Child Health Research Center (CHRC). Applicants should have a Ph.D. or M.D. degree and postdoctoral training, with demonstrated research productivity in molecular and cellular biology. The Core Lab Director will spend 50% time teaching basic and advanced molecular and cellular biology to developing physician-investigators and up to 50% time pursuing his/her own research interests. Please send letter of interest, curriculum vitae, and names, addresses and telephone numbers of four references to: Walter L. Miller, M.D., CHRC Program Director, UCSF, San Francisco, CA 94143-0978.

The University of California is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

PLANT ECOLOGIST VISITING ASSISTANT PROFESSOR

The Department of Biology, University of Michigan, is searching for a plant population/community ecologist to serve as a visiting assistant professor for 1 year starting September 1992. The successful applicant will participate in teaching a general undergraduate course in ecology one term and an upper-level community ecology course the other term. Interested candidates should send curriculum vitae and the names and telephone numbers of three referees to: Dr. B. Rathcke, Department of Biology, University of Michigan, Ann Arbor, MI 48109. Applications will be reviewed starting 10 April 1992 and the search will continue until the position is filled.

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

MEDICAL ONCOLOGIST— YALE UNIVERSITY SCHOOL OF MEDICINE SECTION OF MEDICAL ONCOLOGY

ASSISTANT PROFESSOR level. Primary appointment will be in internal medicine with a joint appointment to the Yale Comprehensive Cancer Center. Outstanding candidate with an M.D. or M.D., Ph.D. degrees primarily devoted to laboratory research in order to provide additional strength in the molecular aspects of neoplasia. The individual will have minimal clinical responsibilities. Applicants should submit curriculum vitae by 31 May 1992 to: William N. Hait, M.D., Ph.D., Chief of Medical Oncology, Yale University School of Medicine, P.O. Box 3333, 333 Cedar Street, New Haven, CT 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR IN BIOCHEMISTRY AND MOLECULAR BIOLOGY. Full-time tenure-track faculty position in the areas of biochemistry and molecular biology. Experience beyond the Ph.D./M.S. is required. Successful applicant will be expected to participate in the problem-solving curriculum to first- and second-year medical students and graduate students. It is anticipated that the selected applicant will develop a strong independent research program in the area of his/her expertise. Rank and salary negotiable, depending on qualifications and experience. Starting date: 1 September 1992. Send curriculum vitae and three letters of recommendation to: Dr. Panayotis G. Iatridis, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, IN 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.

BIOLOGICAL OCEANOGRAPHER/MARINE BIOLOGIST. Immediate opening at Nova University's Oceanographic Center for ASSISTANT or ASSOCIATE PROFESSOR specializing in genetics, microbiology, evolution, physiology or biochemistry; use of molecular techniques desirable. Position requires graduate and undergraduate teaching (the latter including some combination of genetics, cell/molecular biology and/or biochemistry, and participation in the introductory biology course), and externally funded research. Send letter of interest, curriculum vitae, and names and addresses of three references to: Nova University Personnel Department (CMB), 3301 College Avenue, Fort Lauderdale, FL 33314 by 1 May 1992. Nova University is an Equal Opportunity/Affirmative Action Employer. Minorities are encouraged to apply.

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, Michigan State University (MSU), invites applications for a tenure-track position at the assistant professor level. Candidates should have a doctoral degree (Ph.D., D.O., M.D., D.V.M. or equivalent) and 2 to 3 years of postdoctoral experience in cellular and/or molecular cardiovascular research. Duties include teaching in the department's professional, graduate and/or undergraduate programs and maintaining an active, independent research program of high quality. Applicants should send their curriculum vitae and three letters of reference by 30 June 1992 to: Dr. Patrick F. Dillon, Cardiovascular Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824. MSU is an Equal Opportunity/Affirmative Action Institution.

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY

The Department of Biochemistry at the Philadelphia College of Osteopathic Medicine is recruiting a faculty member at the assistant/associate professor level. Applicants should have a doctoral degree with postdoctoral experience. Responsibilities include teaching medical students and developing independent research. Preference will be given to individuals with expertise in the techniques of molecular biology. The position offers an opportunity to collaborate with both basic and clinical scientists. Interested applicants should send curriculum vitae and three letters of recommendation to: JoAnne Pieringer, Ph.D., Search Committee Chairperson, Department of Biochemistry, Philadelphia College of Osteopathic Medicine, 4150 City Avenue, Philadelphia, PA 19131. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR. SPATIAL ANALYSIS IN NATURAL RESOURCES. School of Agriculture and Land Resources Management, University of Alaska Fairbanks. Salary: \$1490.94 per biweekly pay period depending on experience. Ph.D. in forestry, landscape ecology, physical geography, natural resources management, spatial statistics, or a related field required. For more information and application process, contact: Lori Schommer, CES/SALRM Personnel Contact, Room 110 Arctic Health Building, University of Alaska Fairbanks, Fairbanks, AK 99775; telephone: 907-474-7963. Applications due: 1 June 1992. Persons hired by the University of Alaska must comply with the provisions of the 1986 Immigration Control Act and are expected to possess a valid social security number. Finalist applications for employment with the University of Alaska may be subject to disclosure.

The University of Alaska is an Equal Opportunity/Affirmative Action Employer and Educational Institution.

UNIVERSITY OF SOUTHERN CALIFORNIA TENURE-TRACK FACULTY POSITIONS

Applications are invited for ASSISTANT/ASSOCIATE PROFESSOR positions in the Department of Pharmaceutical Sciences, School of Pharmacy. Outstanding candidates with research interests in approaches in cell biology, molecular biology, or immunology related to drug targeting are invited to apply. Applicants are expected to possess a Ph.D. degree in the biological, chemical, or pharmaceutical sciences. Participation in team teaching at both the undergraduate and graduate levels is required. Please submit curriculum vitae, selected reprints, a short statement of future research plan, and the names and addresses of three references by 15 May 1992 to: Vincent H. L. Lee, Ph.D., University of Southern California, John Stauffer Pharmaceutical Sciences Center, 1985 Zonal Avenue, Los Angeles, CA 90033-1086. Telephone: 213-342-3269. Equal Opportunity Employer M/F/H.

FREE PRODUCT INFORMATION SERVICE

Send a letter stating the specifics about your new laboratory and Science will put you in touch with the vendors whose products you will need. Write to:

Science New Lab Service Department
1333 H Street, NW
Washington, DC 20005

RESEARCH POSITIONS DRUG METABOLISM/BIOANALYSIS

The Upjohn Company, a recognized leader in biomedical research and the discovery and development of new pharmaceuticals, is seeking several highly motivated and innovative individuals for positions in our Drug Metabolism Research Group. Industry or academic knowledge and background in drug metabolism or bioanalysis using radioactive or stable isotope tracer, enzymatic, immunological, chromatographic, mass spectrometric and other physical-chemical and biomedical methods are necessary. Excellent problem solving and interpersonal skills, oral and written skills, and the ability to conduct collaborative or independent research are also highly desirable.

RESEARCH SCIENTISTS. A Ph.D. degree in biochemistry, organic chemistry, pharmaceutical science or related fields is required. The selected incumbents will function as experts in drug disposition and/or bioanalysis and as members of interdisciplinary, new product project teams. These scientists derive qualitative and quantitative information of the absorption, distribution, metabolism and elimination of drugs and conduct applied and basic research in disciplines such as drug metabolism, biopharmaceutics, pharmacokinetics, pharmacology and toxicology. Project management includes the elucidation of drug biotransformation mechanisms in vivo and in vitro and to develop/validate bioanalytical methods for drugs and metabolites in biological samples.

RESEARCH ASSOCIATES. A B.S. or M.S. degree in one of the above disciplines is needed to assist a scientist in the conduct of in vitro and in vivo studies and to develop analytical methods for the separation, identification and quantification of drugs and metabolites. Pharmacokinetic and metabolism information of drugs and new compounds are derived, with participation in drug discovery and conceptual research projects. Senior associates may assume independent assignments.

Upjohn offers a very competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories, located in downtown Kalamazoo, Michigan. Our region provides immediate access to abundant cultural and recreational pursuits and offers reasonable housing and living costs. Qualified applicants are invited to submit their CV's, cover letters and relevant materials to: THE UPJOHN COMPANY, CORPORATE RECRUITING, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001-0199. Please refer to recruiting position code 910234-112 in your cover letter. An Equal Opportunity Employer M/F.

Our Commitment To Scientific Excellence Continues...

Upjohn



THE INTERNATIONAL CENTRE OF
INSECT PHYSIOLOGY AND ECOLOGY
P. O. BOX 30772, NAIROBI, KENYA

POSITION ANNOUNCEMENT

VACANCY FOR THE POSITION OF DEPUTY DIRECTOR AT THE ICIPE
REF: ADM/92/02

The International Centre of Insect Physiology and Ecology (ICIPE) is an international institution headquartered in Nairobi, Kenya. It undertakes advanced research in insect science and pest management, and offers high-level training to insect scientists and technologists from Africa and other developing countries. It has at any time 44-50 senior scientists and research managers; 24-36 Postdoctoral Research Fellows; 36-45 Ph.D. students; and is funded by a consortium of donors comprising United Nations and international bodies, governmental aid agencies, and private foundations.

Applications are invited from highly qualified scientists and widely experienced research managers for the senior research management position of DEPUTY DIRECTOR at the ICIPE.

The Deputy Director reports directly to the Director of the Centre and, in his absence, acts for him. He has, in addition, overall responsibility for the Research Division of the ICIPE, which includes the research programmes, research support units, the Institutional Building and Interactive Research Unit (IBIRU), and technical support services (including workshops); and maintains close liaison with supportive Divisions within the ICIPE (on Administration and Information and Finance).

The successful candidate will be a person with a solid research background in insect science/pest and vector management/plant protection/ animal health; he will have had considerable experience in science policy matters and research management; and he will be a successful internationalist able to work effectively in an African environment. A more detailed job description will be sent to qualified candidates.

The remuneration package will be competitive, and will reflect the vital importance of this position within the ICIPE. Applications, giving detailed curriculum vitae and addresses of three referees should be addressed (in confidence) to:

The Director
The International Centre of Insect Physiology and Ecology (ICIPE)
P.O. Box 30772, NAIROBI, Kenya

Closing date: 11 May 1992.

SCIENTISTS

Targeted Genetics Corporation, a Seattle-based independent company evolved as a spin-out of Immunex Corporation, is currently recruiting scientists at all levels of work. The company has expertise in gene transfer into eukaryotic cells, in gene regulation, in adoptive immunotherapy, and in cytokine biology, and is committed to the development of gene therapy techniques.

Laboratory programs are being developed in:

- **Gene expression** - including methods to direct constitutive and regulated gene expression in transduced primary cells;
- **Gene transfer** - including the development of retroviral or alternative vectors for efficient introduction of genes into selected target cells *in vitro* and *in vivo*;
- **Vector production** - including the development of technologies for improving the yield, safety and purity of gene transfer vectors; and producing retroviral and other vectors for GMP use in clinical trials;
- **Immunology** - including mouse and human T cell biology, *in vivo* animal models for adoptive transfer of T cell clones, and the introduction of regulated genes into T cells that modify cell function.

For consideration, please submit C.V., names of three references and a list of publications to:

Targeted Genetics Corporation
1201 Western Avenue
Seattle, Washington 98101
Fax: (206) 587-0606

Targeted Genetics Corporation

Equal Opportunity Employer

We're Committed To Making Our Future As Bold As Our Past.

Last year, while achieving our 20th consecutive year of growth, Abbott made a \$1.4 billion investment in research and capital improvements. This investment shows the continuing commitment we have to making future innovations and expanding our leadership in the global health care market.

SR. PHARMACOLOGISTS/ GROUP LEADERS Immunoscience Research

As part of a multidisciplinary drug discovery team in our Pharmaceutical Products Division, you will be responsible for the development and implementation of new *in vivo* models of allergy and inflammation, contribute to the formulation of project goals, and direct a staff of biological scientists—including Ph.D.-level individuals.

We require 6+ years post-graduate experience with animal models of inflammation or allergy. Involvement with biochemical assays of inflammatory mediators is desirable. You must also have demonstrated: a strong commitment to the discovery of new therapeutic agents; ability to initiate and complete creative research investigations; an exemplary record of publication; and willingness to collaborate with scientists from other disciplines. Experience supervising staff members—preferably Ph.D.'s—is essential.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban setting, approximately 30 miles north of Chicago. For confidential consideration, please forward a resume with salary history to: **Patricia Handy, Corporate Placement, Job # GC7613, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

ABBOTT LABORATORIES



Experience The Abbott Edge.

MOLECULAR BIOLOGIST INFLAMMATION

Athena Neurosciences, Inc., located in the San Francisco Bay Area, is a biotechnology-based company committed to the discovery and development of new products to diagnose and treat diseases of the central nervous system. We are currently expanding our research efforts in the area of brain inflammation.

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The successful candidate will join a multi-disciplinary group of cell biologists and pharmacologists. The applicant should have a Ph.D. and extensive experience both in molecular biology and in the study of leukocyte function. We are particularly interested in candidates working on molecular mechanisms of inflammation and who are interested in applying their expertise to CNS disorders. Responsibilities will include the cloning and expression of novel adhesion molecules relevant to the trafficking of immune cells into the brain.

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Athena Neurosciences offers an innovative and exciting professional, scientific environment in addition to competitive salaries, benefits and equity participation. Please reference ad #SCI410 when sending your CV to: Athena Neurosciences, Inc., Attn: Human Resources, 800F Gateway Boulevard, South San Francisco, CA 94080. EOE.



SANDOZ RESEARCH INSTITUTE

EXPANDING OUR COMMITMENT TO INNOVATIVE RESEARCH

Innovative research at Sandoz has been enhancing medicine around the world for over a century. Pioneering drugs have extended and improved the quality of life for countless individuals and revolutionized basic scientific concepts within the transplantation and mental health fields.

As a result of a major expansion in basic research which will continue over the next decade, the Sandoz Research Institute seeks highly motivated and creative scientists. Successful applicants will become part of multidisciplinary teams of scientists in our modern, newly opened research facilities and use state-of-the-art technology to develop novel therapeutic agents.

MASS SPECTROMETRIST

Recent Ph.D. in Mass Spectrometry (MS) and, preferably, with one to two years of postdoctoral or industrial experience in biological mass spectrometry. This individual, using mass spectrometry and hyphenated mass spectrometry technologies, will collaborate with biologists and chemists on the structural analytical demands of drug discovery research. The successful candidate will maintain, operate and troubleshoot complex MS systems, including tandem MS and high resolution magnetic sector MS systems, and organize and interpret results for reports and publications. In-depth hands-on experience with ion spray/electrospray MS, LC-MS and tandem MS methodologies, familiarity with MS data systems, computer interfacing and networking and the ability to design and incorporate hardware and software changes to optimize experimental needs is highly desirable. A working knowledge of different separation techniques and the ability to coordinate diverse research activities is required. Good oral and written communication skills are essential. **Position #2145.**

MANAGER, DRUG DELIVERY SYSTEMS

Scientist to head a research group in the area of targetable drug delivery systems. Candidates should have 5-10 years of research experience with a Ph.D. in Chemistry, Pharmaceutical Sciences, Biochemistry, Cell Biology or a related discipline. Experience in research identifying and describing the function of cell surface receptors or in research on the mechanism of cellular uptake of macromolecules by receptor-mediated pinocytosis is preferred. The ability to work in a multifunctional and interdisciplinary environment is essential. **Position #1440.**

EXPERIMENTAL TOXICOLOGIST

Experienced toxicologist to work with minimal supervision in developing new methods and defining new projects. The successful candidate should have a Ph.D. in Pharmacology, Toxicology or a Biological Science and at least two years of experience in the pharmaceutical or chemical industry, or relevant experience in the field of toxicology involving *in vitro* or *in vivo* studies with drugs or chemical agents. Specific expertise in hepatocyte culture for testing hepatotoxicity and performing mechanistic studies on drug-induced cell injuries is required. The ability to develop and recommend procedures for mechanistic studies in understanding the nature of toxicity induced by drugs or drug candidates is essential. **Position #2065.**

Being part of the research team at Sandoz has many advantages. Our salaries and benefits programs are designed to attract top candidates and provide them with the resources to produce their best. Comprehensive health, dental, and savings plans as well as fitness and athletic facilities are all provided at our attractive location in northwest New Jersey, which also allows for outstanding academic, cultural and outdoor pursuits. For consideration, please specify the number of the position you are responding to and forward your resume, in confidence, to:

Human Resources Department, 403-1
SANDOZ RESEARCH INSTITUTE
SANDOZ PHARMACEUTICALS CORP
East Hanover, New Jersey 07936

An Equal Opportunity Employer M/F/H/V



SANDOZ

bringing research to life

POSTDOCTORAL RESEARCH ASSOCIATES

Signal Transduction

Ph.D. in Biochemistry, Pharmacology or a related discipline with a background and interest in signal transduction related to membrane receptors. The successful candidate will join a multidisciplinary group dedicated to the discovery of novel approaches to the treatment of diabetes and will perform fundamental research on aspects of hormone/drug interactions and signal transduction. **Position #325.**

Biochemical NMR Spectroscopist

Ph.D. NMR Spectroscopist or Biochemist with expertise in the area of multi-dimensional NMR spectroscopy is needed to investigate the structural features of protein-ligand interactions. The successful candidate must be knowledgeable in structural determination methods and have proven biochemistry experience. Our NMR laboratories are well equipped with state-of-the-art instruments and work stations. **Position #327.**

Molecular Biology

Ph.D. in Molecular Biology to work on projects related to peptide display libraries, cell-signalling receptors and adhesion molecules. The successful candidate will clone and identify novel cell surface receptors and characterize their role in signal transduction or cell-cell interaction as they pertain to immunoregulation and inflammation. Applicants must have demonstrated expertise in molecular biology. Skills in tissue culture and computer analysis of DNA/proteins are desirable. **Position #367.**

Our postdoctoral openings are one year, industry based positions and are extendible up to two years by mutual agreement.

EMORY UNIVERSITY SCHOOL OF MEDICINE Associate Dean for Research

Emory University School of Medicine is developing an important new position with responsibility to provide overall administrative leadership for research efforts within the School. This school has one of the fastest-growing research programs in the country and recognizes the critical need to identify an individual who can provide senior leadership in this area. The Associate Dean reports directly to the Dean. Primary responsibilities will require consultation with department chairs and faculty in developing institutional priorities for scientific investigation, fostering interaction among departments and encouraging program projects and center grant applications. The individual will counsel faculty regarding research opportunities, consultant agreements, patent applications and other grant and contract issues. Qualified candidates should hold the M.D., or Ph.D. degree and have distinguished credentials as an investigator.

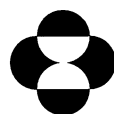
Applications and inquiries should include a current curriculum vitae and be directed to **Jeffrey L. Hout, M.D., Dean, Emory University School of Medicine, Woodruff Health Sciences Center Administration Building, 1440 Clifton Road, N.E., Atlanta, Georgia 30322.** The search will remain open until the position is filled.

EMORY UNIVERSITY IS AN
EQUAL OPPORTUNITY/AFFIRMATIVE
ACTION EMPLOYER.

Ph.D. Biochemist

The Biochemistry Department of Merck Research Laboratories is seeking a scientist interested in studying therapeutically important enzymes. Candidates should have a Ph.D. in Biochemistry or related field with a strong interest in enzymology and enzyme inhibitors. Experience with molecular biology is desirable.

Merck Research Laboratories is located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. Interested applicants should submit a curriculum vitae, including 3 references, to **Christine L. Cantone, Associate Manager, Merck Research Laboratories, R80 A-3, AD#115, P.O. Box 2000, Rahway, NJ 07065-0900.** EEO/AA/VH Employer.



MERCK
Research Laboratories

POSITIONS OPEN

ASSOCIATE DEAN FOR BASIC SCIENCE AND RESEARCH

The Texas College of Osteopathic Medicine (TCOM) invites nominations and applications for the position of associate dean for basic sciences and research. TCOM is a state-supported medical school, affiliated with the University of North Texas. Our research grants and contracts were in excess of \$4 million for 1990-1991. We now seek an eminent scientist/teacher who will lead the college to a higher level of national and international prominence in its programs. The associate dean for basic sciences and research is responsible for all research programs in the college and for all teaching and service programs in the Basic Sciences Division. Applications should include curriculum vitae and the names of three references. To receive full consideration, applications should be sent before 1 July 1992 to: **Michael Emmett-Oglesby, Ph.D., Search Committee Chairman, Department of Pharmacology, Texas College of Osteopathic Medicine, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2699.** TCOM is an Equal Opportunity/Affirmative Action Employer and Educator.

DIRECTOR OF SYNTHESIS SEQUENCING CORE FACILITY MOLECULAR BIOLOGY DEPARTMENT PRINCETON UNIVERSITY

Director of molecular biology core facility with responsibility for research, technical, and administrative activities of facility. Collaborating with faculty to improve and expand the capabilities in protein microsequencing and protein chemistry. Manages operations which include automated protein microsequencing, oligonucleotide and polypeptide synthesis, protein purification, and peptide mapping. Oversees supervisory, professional and technical staff. Must have extensive experience with the following equipment: protein microsequencers, protein hydrolyzers, amino acid analyzers, peptide synthesizers, DNA synthesizers, and preparative and analytical HPLCs. Appointment will be made to the Professional Technical Staff. Rank and salary will be commensurate with education and experience.

Qualifications: Ph.D. degree and relevant experience in the areas of protein purification and protein chemistry.

Applicants should send curriculum vitae and the names of at least three references to:

**Director—Synthesis/Sequencing
Department of Molecular Biology
Princeton University
Princeton, NJ 08544**

Princeton University is an Equal Opportunity/Affirmative Action Employer.

The National Wetlands Research Center (NWRC), U.S. Fish and Wildlife Service, has continuing opportunities for a **PROGRAM MANAGER** research position in oil pollution and habitat contamination research. NWRC is interested in individuals with training and experience in environmental research associated with oil spills and other contaminants. Oil Pollution Research Program includes effects of oil pollution, restoration of habitats and populations affected by oil spills, clean-up technologies, oil spills planning, and oil spill response. This is an emerging research area involving many federal and state agencies and the private sector. Research on contaminants includes the effects and cumulative impacts of chemical spills and discharges, urban runoff, and agricultural runoff.

Research at the center crosses many disciplines and addresses priority issues affecting Fish and Wildlife and their habitat. Candidates should have experience in program development, administration and management of research as well as expertise and experience as scientists. The successful candidate will manage some existing research dealing with contaminant effects on habitat and assist in the development of new programs.

NWRC is moving into a new 63,000-square-foot state-of-the-art federal research laboratory facility on the campus of the University of Southwestern Louisiana, in Lafayette, Louisiana, in 1992.

The starting salary range is \$46,210 to \$52,370. For more information on how to apply for this position, contact: **Dr. Robert E. Stewart, Jr., Director, or Barbara Carney, Administrative Officer, NWRC, 1010 Gause Boulevard, Slidell, LA 70458; telephone: 504-646-7564.**

An Equal Opportunity Employer.

POSITIONS OPEN

CHAIR, DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE. University of Wisconsin Medical School—Madison, Wisconsin. Searching for a chairperson for the Department of Pathology and Laboratory Medicine to succeed Professor Burton Goldberg who has announced his plans to retire later this year. We seek a person able to give outstanding academic and administrative leadership to all aspects of the department's activities. Send reply with curriculum vitae to: **Professor Paul Deluca, Chair of the Search Committee, c/o Margie Martin, 1205 Medical Sciences Center, 1300 University Avenue, Madison, WI 53706.** To ensure full consideration, applications should arrive by 29 May 1992. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. The University of Wisconsin State System is required to release, within 2 days of a request after the deadline for receipt of nominations and applications, a combined list of all nominees and applicants without differentiation.*

GENE KNOCKOUT CORE

Six investigators at the University of Texas Southwestern Medical Center who share a program project seek doctorate level individuals to supervise a Homologous Recombination Core Facility (which will include one or two technicians). We seek individuals with experience in transgenics, cell biology, molecular biology, or homologous recombination itself. *The University of Texas is an Equal Opportunity/Affirmative Action Employer.* Please submit your curriculum vitae with a cover letter and references to:

**Dr. J. Donald Capra
The University of Texas Southwestern
Medical Center
Department of Microbiology
5323 Harry Hines Boulevard
Dallas, TX 75235-9048**

SUPERVISOR OF SYNTHESIS SEQUENCING CORE FACILITY MOLECULAR BIOLOGY DEPARTMENT PRINCETON UNIVERSITY

Supervises the daily operations of a molecular biology core service facility that provides automated oligonucleotide synthesis, automated polypeptide synthesis, protein microsequencing and peptide mapping. Must have extensive experience with automated synthesis and sequencing equipment, both in normal operations and in maintenance and repair. Equipment includes protein microsequencers, protein hydrolyzers, amino acid analyzers, peptide synthesizers, DNA synthesizers, and both preparative and analytical HPLCs.

Administrative duties include training and supervision of several technicians, organization of schedules, billing, and liaison activities with the faculty and staff. Must be able to provide technical assistance and advice in the areas of peptide mapping, protein microsequencing and protein purification to investigators in ongoing basic research projects. Appointments will be made to the professional technical staff. Rank and salary will be commensurate with education and experience.

Qualifications: B.S. degree and at least 5 years of experience managing a similar service facility.

Applicants should send curriculum vitae and the names of at least three references to:

**Supervisor—Synthesis/Sequencing
Department of Molecular Biology
Princeton University
Princeton, NJ 08544**

Princeton University is an Equal Opportunity/Affirmative Action Employer.

University of South Florida (USF), Department of Internal Medicine/Division of Endocrinology and Metabolism, seeks **M.S./Ph.D.** with experience in molecular biology to work in area of insulin action, phospholipid signaling mechanisms and protein kinase C activation. Should have experience with protein purification, Western blotting, Northern/Southern blotting, DNA library analysis, cloning, PCR, DNA sequencing, site-directed mutagenesis, and transfection of eukaryotic cells. Salary commensurate with training and experience. Position available immediately. Send résumé and statement of research interests to: **Dr. Robert V. Farese, Research Service, J. A. Haley Veterans' Hospital, 13000 Bruce Downs Boulevard, Tampa, FL 33612** no later than 30 April 1992. *USF is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT MOLECULAR BIOLOGY RESOURCE PROFESSIONAL. Oklahoma State University is developing a Recombinant DNA/Protein Resource Core Facility to serve the university research community. We are seeking an individual to enlarge, manage and publicize recombinant DNA functions of the facility. The opportunity for collaborative research with other faculty exists. Candidates should hold a doctorate in biochemistry, molecular biology, genetics, or a related area and have wide experience in recombinant DNA techniques. Applicants should provide curriculum vitae and three letters of recommendation. Consideration of applications will continue until the position is filled. Send applications and inquiries to: **Dr. James B. Blair, Department of Biochemistry, Oklahoma State University, Stillwater, OK 74078-0454. Telephone: 405-744-6189. Oklahoma State University is an Affirmative Action/Equal Opportunity Employer.**

NEUROSCIENCE FACULTY positions available at University of Wisconsin-Madison. The Department of Neurophysiology invites applications for two tenure-track positions. Interested in applications from individuals whose demonstrated research emphasizes vertebrate molecular neurobiology such as structure-function of ion channels, regulation of expression of genes for ion channels, and intracellular messengers. Successful candidate is expected to develop vigorous independent research program and participate in the medical and graduate student teaching programs of the department. Send curriculum vitae, list of publications, summary of past work and accomplishments, statement of future research plans, and three letters of reference to: **J. F. Brugge, Chairman, Department of Neurophysiology, 273 Medical Sciences Building, Madison, WI 53706. Women and minorities are especially encouraged to apply. Equal Opportunity/Affirmative Action Employer.**

The University of Utah School of Medicine and Salt Lake VAMC are seeking individuals to join the **UNIVERSITY/VA PROGRAM IN GERIATRICS**. Faculty rank dependent upon qualifications. Candidates should have an M.D. and/or Ph.D., and interests in one or more of the following: basic biologic mechanisms of aging, clinical geriatric medicine or computer-based strategies for real-time assistance in the delivery of health care. Appointments will be in the Division of Human Development and Aging and in the Salt Lake Geriatric Research, Education and Clinical Center. Send curriculum vitae and bibliography to: **Gerald Rothstein, M.D., Division of Human Development and Aging, University of Utah School of Medicine, Salt Lake City, UT 84132. Closing 10 May 1992 or until a suitable candidate is identified. The University of Utah and VAMC are Affirmative Action/Equal Opportunity Employers.**

MOLECULAR NEUROBIOLOGIST OR CELL BIOLOGIST

The Department of Anatomy and Cell Biology at Emory University invites applications for a tenure-track position at the Assistant Professor level. Candidates must have a Ph.D. or M.D. degree, significant postdoctoral experience, a competitive research program and publication record, and be able to participate in team-taught courses in cell biology. Individuals with demonstrated excellence in contemporary or neurobiology research involving application of molecular approaches are especially encouraged to apply. Interviews will begin in early fall. Candidates should submit a letter of application, curriculum vitae, reprints, a description of research interests, and names and addresses of four individuals to be contacted for references to: **Dr. Bryan Noe, Search Committee Chair, Department of Anatomy and Cell Biology, Emory University School of Medicine, Atlanta, GA 30322-3030. Emory University is an Equal Opportunity/Affirmative Action Employer.**

MICROBIOLOGY/DEVELOPMENTAL BIOLOGY. One-year replacement position for 1992-93 at two-thirds time. Teaching responsibilities include two courses with accompanying laboratories each semester: microbiology and general biology, fall semester; and developmental biology and general biology, spring semester. Ph.D. or A.B.D. Send letter, curriculum vitae, and names of three references to: **Dr. Richard Pfau, Dean, Emory & Henry College, Emory, VA 24327. Inquiries to: Dr. Richard Sherwin, Chair, Biology; telephone: 703-944-4121.**

The quality of
R&D depends on
the quality of the
resources.

Computational Chemistry

There are a number of components to success in the pharmaceutical research process. The most important is our people. At Schering-Plough, we hire the best talent in our industry. Then, we provide them with the technical resources they need to do their best work: the most advanced instrumentation; the latest computerized systems; modern lab facilities. Finally, we spend over \$400 million annually on R&D, and are completing a \$300 million R&D facility.

Commitment of this scope has helped us achieve over \$3 billion in annual sales around the world.

Our expanding Computational Chemistry Group currently has two positions available for individuals interested in solving challenging drug design problems utilizing the full range of modeling and simulation methods, including protein crystal structure based rational drug design, SAR-based pharmacophore modeling and quantum chemistry. Additionally, you will assist in identifying and implementing new software tools as well as in developing new tools to solve problems in drug discovery.

SENIOR SCIENTIST

To qualify, you must have a Ph.D in Chemistry and, preferably, 1-2 years of postdoctoral

experience in a computational or drug design related field. Experience with molecular modeling of protein structures would be a plus.

SCIENTIST

To qualify, you must have a M.S. in Chemistry with 0-4 years of experience in computational chemistry. Experience with the use of computers to address chemistry and/or drug design problems is essential.

We offer a highly competitive salary and benefits package commensurate with your qualifications. Please send resume to Dept. KB., Schering-Plough Research Institute, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

The science of success



NASA EARTH OBSERVING SYSTEM (EOS) SENIOR PROJECT SCIENTIST

The NASA/Goddard Space Flight Center, located in Greenbelt, MD is seeking candidates for the position of EOS Senior Project Scientist. The incumbent will provide the primary and day-to-day interface between the Earth Science community and the EOS Project in defining and representing scientific requirements and providing related scientific insight and guidance to the EOS Project. The incumbent will work with the EOS Program Scientist and other Earth Science Program personnel at NASA Headquarters to ensure that scientific and related programmatic requirements are appropriately implemented by the EOS project. Along with the Program Scientist, the incumbent will co-chair the EOS Investigators Working Group (IWG) and related panels and subpanels. The incumbent will guide and lead the efforts of EOS Project Scientists associated with the various EOS payloads and the EOS Data and Information Systems (EOSDIS).

An applicant should be an internationally recognized research scientist in an Earth science discipline or interdisciplinary Earth science, with substantial experience in developing and implementing research programs. There should be documented skill or knowledge in numerical modeling and data analysis using remotely sensed data from spaceborne, earth oriented observing systems and related data processing, archiving, and distribution systems. The salary associated with the position (\$64,233-\$104,000) will depend upon the selected applicant's background, qualifications, and experience.

In applying, the following is required: a resume including a list of scientific and technical publications and an Application for Federal Employment (SF-171). This material should be sent by May 8, 1992, to: **NASA/Goddard Space Flight Center, Code 115G, Greenbelt, MD 20771.** Inquiries should be directed to **Ms. Dianne Hagerty at (301) 286-8319.** Equal Opportunity Employer. U.S. Citizenship is required.

Staff Scientist

Inflammation

ALZA is a leader in drug delivery systems focusing on the development, manufacture and marketing of a wide range of proprietary pharmaceutical products.

As a specialist in inflammation research, you will develop appropriate *in vivo* and *in vitro* models to study the mechanisms of inflammation in the skin. Your research will focus on mechanisms of local side effects, particularly irritation, related to the transdermal delivery of drugs, including peptides. You will develop strategies to prevent inflammation secondary to this mode of delivery.

Ideal candidates will possess a PhD in Cell Biology, Physiology, Immunology or related discipline and up to 2 years of postdoctoral cell culture research experience. Solid knowledge of the biochemistry of inflammation, skin physiology and mechanisms of toxicity is preferred.

For immediate consideration, please send your resume to ALZA, Human Resources, 950 Page Mill Road, P.O. Box 10950, Palo Alto, CA 94303-0802 or call (415) 494-5319. We are pleased to be an equal opportunity employer.

alza

POST-DOCTORAL POSITION TRUDEAU INSTITUTE, INC.

A Postdoctoral Position in immunology is available to study the immune response to *Cryptococcus neoformans*. Candidates with a background in cellular or molecular immunology who are interested in using their training to analyze *in vivo* models of opportunistic infections should apply. A competitive salary and fringe benefits are offered and on-campus housing will be made available. Future staff appointment is possible, depending on performance.

The Trudeau Institute is a not-for-profit pure research institute that specializes in studying the immunology of host defense mechanisms. Current staff interests include cancer and transplantation immunology, immunity against infectious diseases, cytokine function, and immunoregulation. The institute is located on the shore of Saranac Lake, 8 miles from Lake Placid, New York.

Send curriculum vitae and the names of three references to:

Dr. Joseph O. Hill
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, NY 12983

MIT

FACULTY POSITION IN PLASMA ENGINEERING AND FUSION TECHNOLOGY

The Department of Nuclear Engineering at MIT is seeking applicants for a tenure track position at the level of assistant professor in the areas of plasma engineering and fusion technology. Candidates should hold a Ph.D. or Sc.D. degree in an engineering or physical sciences discipline.

The applicant should be strongly committed to fusion research and have broad intellectual interests in plasma engineering, fusion technology and plasma physics. Preference will be given to those candidates whose interests and experience bridge the gap between basic experimental plasma physics and engineering design. Hands-on laboratory competence is essential. As such, candidates should have experience in one or more of the following areas: plasma heating systems, plasma diagnostics, magnet design, plasma-wall interactions, impurity control, experimental design and operation, and liquid metal technology.

The position requires the capability to develop a substantial research program, including support, primarily through interaction and collaboration with other departmental faculty as well as with scientists and engineers at MIT's Plasma Fusion Center. The Plasma Fusion Center is an on-campus, inter-departmental, inter-disciplinary laboratory which serves as primary focus for fusion research for MIT.

The position also requires that the candidate be committed to teaching courses in the academic areas of plasma engineering, fusion technology, and fusion physics as well as assisting in the development of new courses, particularly involving design and laboratory experience. The successful candidate will have responsibility for the supervision of student research projects. Preference will be given to those candidates with demonstrated teaching competence.

Please submit curriculum vitae to: **Professor Ian H. Hutchinson, Massachusetts Institute of Technology, NW17-186, 77 Mass. Avenue, Cambridge, Massachusetts 02139-4307.**

MIT is an Equal Opportunity/Affirmative Action Employer
MIT is a non-smoking environment

**Massachusetts
Institute of Technology**

DIRECTOR Office for Interdisciplinary Earth Studies

The Office for Interdisciplinary Earth Studies (OIES) was established by the University Corporation for Atmospheric Research (UCAR) in 1986 to represent all disciplines that study the earth as an interconnected system. The office is a program-driven activity designed to serve the needs of the US Global Change Research Program (USGCRP) and the International Geosphere-Biosphere Programme (IGBP) through advocacy, the dissemination of information and the definition and instigation of scientific research.

OIES initiates new planning endeavors to define and implement the research programs described above and works with top-level administrators in NASA, NOAA, NSF, DOE, EPA, and USGS and the National Academy of Sciences (NAS) to define and implement activities within these agencies that support the USGCRP. OIES works internationally with the Secretariat of the IGBP in performing similar functions for the IGBP.

UCAR is seeking a highly qualified professional with broad experience and expertise in the earth, biological or appropriate social sciences to lead the OIES program. The OIES Director will foster and promote the goals of the broad global change research program. Salary will depend upon qualifications and experience.

The President of UCAR wishes to appoint the OIES Director in the summer of 1992. Applications should include a letter of interest, curriculum vitae and list of publications. Please address them to **Chairman, OIES Search Committee, c/o UCAR Human Resources, Attn: Anna Reyna-Arcos, University Corporation for Atmospheric Research, P.O. Box 3000, Boulder, CO 80307.** Applications for this position must be received by **May 29, 1992.** Please refer to Job #1561 on all correspondence.

UCAR has a strong commitment to the principle of diversity in all areas. In that spirit, we are interested in receiving applications from a broad spectrum of people, including women, minorities, and disabled individuals.



University Corporation for Atmospheric Research

Request for Consultants to Serve as NIH/ADAMHA Peer Reviewers

The National Institutes of Health (NIH) and the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) are in the process of establishing a new consultant file of peer reviewers. These reviewers will be selected from a national pool of scientists who are engaged in basic or applied research. Data from qualified respondents will be entered into a new computerized NIH/ADAMHA database. This unique database will be used as one source from which candidates for membership on NIH/ADAMHA committees and for other advisory activities are drawn. Consultant scientists act in an advisory capacity to assist NIH/ADAMHA in the evaluation of research projects.

All qualified scientists are requested to participate.

Qualified women and minority scientists are encouraged to apply.

All scientists who are interested in participating should respond by letter requesting a copy of the NIH/ADAMHA Consultant File Information Form. Since the new file will be established based solely on positive responses, your response is needed even if you are already a consultant or are a member of a Reviewer's Reserve. This file is independent of other consultant files. Your request should be sent to:

NIH/ADAMHA Consultant File
7101 Wisconsin Avenue, Suite 1125, Box 35
Bethesda, MD 20814

RESEARCH SCIENTISTS

Natural Product Sciences, Inc. is a rapidly growing pharmaceutical company combining a novel focus on calcium-related drug targets with a non-traditional program in discovery of natural product drug leads. NPS has developed a unique multidisciplinary program in the pathophysiology and pharmacology of calcium-dependent regulatory processes, especially as it applies to bone and mineral-related diseases and central nervous system disorders. NPS is currently undergoing a major expansion and is seeking research scientists in the following fields of expertise.

Cardiovascular Pharmacology Applicants (Ph.D. level) should have training in both *in vitro* and *in vivo* assessment of cardiovascular function. Those with expertise in the pharmacology of voltage-sensitive calcium channels are especially encouraged to apply.

Cellular Physiology/Pharmacology Applicants (B.S., M.S., Ph.D. level) should be familiar with ligand-receptor interactions and receptor-dependent transmembrane signaling mechanisms. Those with experience in the measurement of cytosolic calcium and/or ligand-binding techniques are especially encouraged to apply.

Animal Physiology/Endocrinology Applicants (Ph.D. level) should have a thorough understanding of bodily calcium metabolism and be capable of performing *in vivo* experiments. Those with experience in the measurement of serum levels of calcium-regulating hormones and assessment of kidney function are especially encouraged to apply.

Behavioral Pharmacology Applicants (M.S., Ph.D. level) should have experience in assessing the effects of drugs in animal models. Those familiar with animal models of stroke will be given special consideration.

Bone Biology/Osteoporosis Applicants (B.S., M.S., Ph.D. level) should have experience in assessing the effects of drugs and hormones in *in vitro* and/or *in vivo* bone resorption assays. Those familiar with the biology of the osteoclast are especially encouraged to apply.

Molecular Biology Applicants (M.S., Ph.D. level) should have extensive experience in cDNA cloning, construction and screening of phage and plasmid libraries, PCR and mRNA techniques. Those with experience in expression cloning and/or hybrid arrest techniques are especially encouraged to apply.



Natural Product Sciences offers competitive salaries, benefits and the opportunity for equity ownership. Our location on the western slopes of the Rocky Mountains provides an unusually beautiful and livable environment in which to pursue innovative research.

Please send curriculum vitae to: Director of Personnel, Natural Product Sciences, Inc., 420 Chipeta Way, Suite 240, Salt Lake City, Utah 84108. We are an Equal Opportunity Employer.

NATURAL PRODUCT SCIENCES, INC.

Gillette Research Institute, a division of The Gillette Company, serves as a worldwide leader in the manufacture of fine grooming and health care products. These key opportunities are currently available, to help create the next generation of marketable products for Gillette:

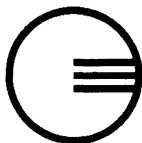
Project Leader

This Scientist will lead a research project in antiperspirancy. We seek a PhD with 5+ years' research experience in Physiology, Biochemistry or a related science; antiperspirancy research expertise is desirable.

Polymer Chemist

We seek a Scientist for cosmetic applications of polymer research; requirements include a PhD with 3+ years' research background in Polymer Chemistry or a related field. Prior experience in polymer cosmetic applications is preferred.

Gillette offers excellent compensation, benefits and relocation assistance, as well as strong growth potential. We are located in a new facility in Montgomery County, offering affordable housing and easy access to the Washington, DC area. Please send a resume with salary history and requirements to:



Gillette Research Institute
401 Professional Drive
Gaithersburg, MD 20879

An Equal Opportunity Employer

RESEARCH SUPERVISOR Pharmacology

Share the vision. Consider Anaquest, the company looking ahead to year 2000 and beyond.

At Anaquest, achievement is a way of life. By any measure, our success has been astounding as we have grown to become the leading provider of anesthesia-related pharmaceuticals in North America. If you are highly motivated, willing to stretch yourself to new limits, then Anaquest could be the place for you.

Our current growth is fast and our staff is lean. Responsibility comes quickly and the challenges are great. If this is the kind of environment where you would thrive, you could be right for this outstanding opportunity. We seek a professional, enthusiastic scientist to supervise behavioral pharmacology research at our R&D facilities in Central New Jersey.

To successfully handle this role, you need a PhD in Pharmacology or a related area, 3-5 years of industrial experience, as well as excellent oral/written communication and proven supervisory skills. Background must include expertise in *in vivo* behavioral screening, working knowledge of medicinal chemistry, plus ability to interact effectively with small teams of chemists. Familiarity with the perioperative anesthesia area is desirable. Knowledge of molecular biological concepts is a plus.

Anaquest offers a competitive compensation package that includes an excellent salary, comprehensive and flexible benefits, plus outstanding opportunities to advance your career. For immediate, confidential consideration, please send your resume and salary history to: **Human Resources, Box TJ, Anaquest, 110 Allen Road, Liberty Corner, NJ 07938.** Although we will review every resume, we will only be able to respond to qualified candidates. We are an equal opportunity employer M/F/H/V.

Anaquest



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Company

Critical Care
Worldwide

POSITIONS OPEN

INSTRUCTOR DIVISION OF ENDOCRINOLOGY

Position available immediately to study mechanistic relationships between estrogen and growth and differentiation of breast cancer cells in tissue culture and *in vivo*. Candidates should have a Ph.D. or equivalent with experience in molecular biology, cell culture, and steroid biochemistry. Applicants will be expected to have completed at least 1 year of postdoctoral training. This is an entry-level faculty position. Send curriculum vitae and the names of three references to: **R. J. Santen, M.D., Chief, Division of Endocrinology, Diabetes and Metabolism, The Milton S. Hershey Medical Center, Pennsylvania State University, P.O. Box 850, Hershey, PA 17033.** An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

SENIOR INORGANIC CHEMIST: The Department of Chemistry of the University of California, Santa Barbara (UCSB), is initiating a search for a senior inorganic chemist as a replacement for Ralph G. Pearson, who has recently become Professor Emeritus. The timing of this appointment is planned to correspond to the scheduled 1993 completion of a 61,430 ASF addition to the Chemistry Building. Only those individuals with an outstanding record in research and teaching will be considered. The specific sub-field is open and applications will be accepted until this position is filled. Persons interested in applying or obtaining further information are urged to write to: **Chair, Inorganic Search Committee, Department of Chemistry, University of California, Santa Barbara, CA 93106-9510.** Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION TULANE UNIVERSITY

The Tulane University, School of Public Health and Tropical Medicine, and the Tulane Regional Primate Research Center are committed to the development of a vigorous research program in tropical medicine. Applications are invited for a tenure-track faculty position shared by the Department of Tropical Medicine and the Primate Center. Faculty rank will be commensurate with the applicant's experience and achievements. The successful candidate will have an ongoing program of independent research related to malaria or other important diseases of the tropics. Research areas of particular interest include sporozoite biology, the genetics of *Plasmodium*, molecular entomology, immunology of plasmodial infection, vaccine studies and retroviral biology. This individual will also be expected to take a substantial role in the department's graduate training program. Research laboratories will be available within the Tulane Medical Center and the Primate Center. Preference will be given to candidates with research programs that take advantage of the resources available at both institutions.

Applicants should send curriculum vitae, the names and addresses of three references, and a statement of professional goals, interests and experience to:

Dr. Thomas C. Orihel
Chair, Search Committee
Department of Tropical Medicine
Tulane Medical Center
1430 Tulane Avenue
New Orleans, LA 70112

Applications will be accepted until a suitable candidate is identified. Tulane University is an Affirmative Action/Equal Opportunity Employer, and qualified women and minorities are encouraged to apply.

POSTDOCTORAL POSITION

A postdoctoral position is available immediately for a recent Ph.D. with training in organic chemistry, medicinal chemistry, and peptide chemistry. The successful candidate will assist our organic research team with the design and synthesis of biologically relevant compounds. Starting salary is in the mid-30's and the appointment is for 1 year with the possibility of a 1-year renewal.

Interested candidates are invited to forward their curriculum vitae and a statement of their research interests and experience in strict confidence to: **D. Carlson, NeoRx Corporation, 410 West Harrison Street, Seattle, WA 98119.**

NeoRx Corporation is an Equal Opportunity Employer, M/F/H/V.

POSITIONS OPEN

COOPERATIVE EXTENSION ASSISTANT SPECIALIST (CE) AND ASSISTANT ENOLOGIST IN THE AGRICULTURAL EXPERIMENT STATION (AES). Applications are sought for an 11-month position available 1 July 1992. The appointee is expected to carry out a program of CE education and applied research in wine making relevant to her/his area of expertise, to have a commitment to both the extension and applied research aspects of the position, to develop a strong and highly visible statewide program to extend relevant information to winery personnel, wine industry suppliers and the public as needed, and will be expected to interact with members of allied departments. Sensitivity to affirmative action and performance in furthering its policy are required. A Ph.D. in biochemistry, chemical engineering, chemistry, food science, microbiology, or a related field is required. Extension and/or postdoctoral research experience is desirable. Send curriculum vitae, publication list, extension and research publications, graduate transcripts, a statement of research, extension, and teaching interests, and the names and addresses of three references by 1 June 1992 to: **James A. Wolpert, Search Committee Chair, Department of Viticulture and Enology, University of California, Davis, CA 95616-8749, telephone: 916-752-0296.** *The University of California is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Positions are available immediately for biochemists or cell biologists with molecular biology experience. Projects involve (1) cloning of the mammalian nucleoside transporter and studying the regulation of nucleoside transport by phosphorylation and (2) regulation of cAMP signal transduction by "cross-talk." Salary is \$27,000 to \$30,000. Send curriculum vitae, summary of research experience, and names of three references to:

Drs. Adrienne Gordon or Ivan Diamond
Department of Neurology
Gallo Center
Building 1, Room 101
1001 Potrero Avenue
San Francisco, CA 94110

The University of California is an Equal Opportunity Employer.

POSTDOCTORAL POSITION to study muscle development/function using combination of molecular biology and image processing techniques. Some experience in molecular biology required. *Applicant must be a citizen or permanent resident of the United States.* Position available immediately. Please contact: **Drs. Joseph W. Sanger/H. Lee Sweeney, University of Pennsylvania School of Medicine, 36th Street and Hamilton Walk, Philadelphia, PA 19104-6058.** *The University is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION

The Johns Hopkins University Division of Surgical Oncology has a position available for a **POSTDOCTORAL FELLOW** for the study of receptor and G-protein mediation of vascular proliferative phenomena. Studies will center on mechanisms of signal transduction in controlling angiogenesis in portal vascular proliferative events and neoplastic neovasculation. Expertise in molecular techniques is essential. Please send curriculum vitae, name and address of three references to: **James V. Sitzmann, M.D., Chief, Surgical Oncology, The Johns Hopkins Medical Institutions, 600 North Wolfe Street, Balock 665, Baltimore, MD 21205.**

POSTDOCTORAL POSITION

A position is available to study the molecular mechanisms of cancer chemoprevention beginning 1 September 1992. Research in progress is focusing on the inhibitory effect of green tea administration on ultraviolet light-induced skin tumorigenesis in mice as well as the inhibitory effects of green tea, curcumin and rosemary on tumor promotion in mouse skin. Experience in molecular biology is necessary. Please submit curriculum vitae and three letters of recommendation to: **Dr. Allan Conney, Laboratory for Cancer Research, College of Pharmacy, Rutgers, The State University of New Jersey, P.O. Box 789, Piscataway, NJ 08855-0789.**

SCIENTIST MAMMALIAN CELL EXPRESSION

Delivering on the Promise of Biotechnology...

Immunex Corporation, a Seattle biopharmaceutical company focused on the research, development, manufacture and marketing of products to treat cancer and autoimmune disease, is seeking a qualified candidate to join our Mammalian Cell Development group. ■ The successful candidate will be responsible for hands-on expression of therapeutic proteins in mammalian cell culture. This will involve transfection, selection and amplification of appropriate foreign genes in cell lines suitable for large scale manufacture of recombinant proteins. Responsibility for improvement of both stable and transient mammalian expression systems will also be an important component of this position. ■ Scientists with a Ph.D. in cell biology/cell physiology and a fundamental knowledge of DNA manipulation and gene transfer techniques using animal cells are encouraged to apply. Familiarity with a variety of amplifiable and/or inducible expression systems would be very desirable. Excellent communication skills and the ability to work in a collaborative environment are essential. ■ Immunex Corporation offers a fast paced, stimulating environment, competitive salaries and an excellent benefits package. For consideration, please submit C.V., names of three references, and a list of publications to: **IMMUNEX CORPORATION, Attn.: Human Resources Dept., 51 University St., Seattle, WA 98101. Fax: (206) 623-4572.**

Equal Opportunity Employer.

IMMUNEX

SCIENTIST

Cardiovascular Pharmacologist

SmithKline Beecham Pharmaceuticals, a leader in innovative pharmaceutical research, has an opening for a Ph.D. Research Scientist to join its Cardiovascular Pharmacology Department. The selected candidate will establish and conduct independent research programs to explore mechanisms of thrombosis, cardiac function and congestive heart failure in relevant *in vitro* and *in vivo* models, and collaborate with intramural and extramural scientists to evaluate new pharmacological strategies for cardiac and thrombotic diseases.

The candidate will integrate pharmacologic, physiologic, biochemical and cell biology methodologies to identify new therapeutic strategies for cardiac/thrombotic diseases and publish and present scientific data in intramural and extramural forums, including national and international conferences.

Qualified candidates will have a Ph.D. in Pharmacology, Physiology or Biochemistry or a related discipline with at least two years of postdoctoral training in cardiac thrombosis research. A strong record of scientific publications in the field of cardiovascular research is required. Proficiency in techniques for monitoring regional and systemic hemodynamics, regional cardiac function and the coronary circulation is desired. Experience in platelet biology and coagulation is preferred.

SmithKline Beecham Pharmaceuticals offers a stimulating and challenging scientific environment in which to grow and excel. We offer a competitive compensation benefits/relocation package. For confidential consideration, please submit your C.V. along with the names of three references to: **Marilyn Leggieri, Associate Employment Administrator, #L0115, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406.** We are an Equal Opportunity Employer, M/F/H/V.

SB
SmithKline Beecham
Pharmaceuticals

BRANCH CHIEF

The Division of Epidemiology and Clinical Applications, National Heart, Lung, and Blood Institute, National Institutes of Health, PHS, seeks a Branch Chief for its **Clinical Trials Branch** in Bethesda, Maryland.

The Branch Chief will be responsible for supervision of all Branch scientific and administrative activities. These include: providing leadership and participating in the scientific and statistical development, design, coordination, analysis, and reporting/presenting of results from multicenter clinical trials which are under the auspices of the Branch; developing conferences relevant to Branch activities, including medical and methodological issues; collaborating with scientists nationwide and internationally; consulting and interacting with other Branches in the Division, other Divisions in the Institute, other Institutes, and investigators outside the National Institutes of Health; and providing scientific advice to the Director of the Division of Epidemiology and Clinical Applications and the Director of the National Heart, Lung, and Blood Institute.

Specific requirements are: (1) an M.D. degree or its equivalent and experience in clinical and public health research, including multicenter clinical trials. Interest in cardiovascular disease and biostatistics is desirable. Position is a GM-602-15 Medical Officer with a salary range of \$68,515 to \$87,784. In addition, candidates may be eligible for Physician's Comparability Allowance of up to \$20,000. Candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. *U.S. Citizenship is required.*

For further information or to submit curriculum vitae, contact: **Lawrence Friedman, M.D., Acting Director, DECA/NHLBI, Federal Building, Room 212, 7550 Wisconsin Avenue, Bethesda, MD 20892; 301-496-2533.**

NIH is an Equal Opportunity Employer

THE AARON DIAMOND FOUNDATION POSTDOCTORAL RESEARCH FELLOWSHIPS *in the Biomedical and Social Sciences*

AIDS OR DRUG ABUSE RESEARCH

The Aaron Diamond Foundation announces the availability of Postdoctoral Research Fellowships in the biomedical and social sciences focusing on AIDS or drug abuse. The purpose of the Fellowships is to attract promising investigators to academic and research institutions in New York City, and to encourage increased research into understanding and solving two of today's most pressing public health problems. The New York State Health Research Council, aided by a distinguished group of scientists comprising The Aaron Diamond Foundation Fellowship Selection Committee, administers the Fellowship Program.

STIPENDS

Fellows are paid annual stipends beginning at \$36,000. Each Fellowship is for two years, with an option for a third year.

ELIGIBILITY

Applicants should have received an MD or PhD within the past seven years. MD's should have completed at least two years of clinical training. PhD's are eligible immediately after graduation or after limited research experience.

The Fellowships are open to U.S. citizens and permanent residents. Women and members of minority groups are especially encouraged to apply.

MENTORS

A potential Fellow must be sponsored by a Mentor at a New York City institution. Mentors who have already expressed interest in participating in the Fellowship Program are listed in the application materials. The Mentor's institution receives \$30,000 annually to cover the Fellow's research costs, travel, tuition and fringe benefits.

APPLICATION DEADLINES

July 31, 1992 and July 30, 1993

INFORMATION AND APPLICATION FORMS

Ellen L. Rautenberg, Program Director, The Aaron Diamond Foundation Postdoctoral Research Fellowships, New York State Health Research Council, 5 Penn Plaza, Room 308, New York, NY 10001
(212) 613-2525

Faculty Positions in Biochemistry and Molecular Biology Department of Biochemistry University of Missouri-Columbia

The Department of Biochemistry at the University of Missouri-Columbia invites applications for tenure track positions at the level of **Assistant Professor** or, in exceptional circumstances, at higher level. The Department has excellent programs in the biochemistry and molecular biology of plants and animal cells and provides a stimulating environment for productive research and for training students. New facilities for housing a program in protein structure will be completed in fall, 1992. Extensive interactions with other departments in the School of Medicine, the College of Agriculture, Food and Natural Resources and the College of Arts and Science support interdisciplinary research. Eminence Programs in Molecular Biology and Food for the 21st Century provide funds for research, for core facilities and for graduate student and postdoctoral training.

Candidates should have a strong research background and postdoctoral training in cellular, molecular or developmental biology of animal cells and/or protein structure and function.

Applicants should provide a curriculum vitae, a description of research experience and interests, and have three letters of reference sent to **Dr. R. Michael Roberts, Chair, Faculty Search Committee, 117 Schweitzer Hall, Department of Biochemistry, University of Missouri, Columbia, MO 65211.** Deadline for application May 31 or until suitably qualified candidates are identified.

The University of Missouri is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from qualified women and minorities.

The University of British Columbia FACULTY OF MEDICINE Department of Pathology Division of Medical Microbiology

With the assistance of an MRC program development grant, this University seeks to establish a research program in Neurovirology. We wish to recruit a Ph.D. level Senior Investigator at the rank of Professor or Associate Professor with an established academic record in the field of virus/CNS interaction. We also wish to recruit two more Ph.D. level junior faculty members at the rank of Associate or Assistant Professor with research experience complementary to this program.

These scientists will be a focus for the continuing development of research in neurovirology in association with existing local faculty members in various departments. They will also foster collaboration with investigators in other academic institutions through collaborative investigations and consultations.

The MRC program that sponsors this research has special provisions for investigators to apply for operating and capital equipment grants. Furthermore, the salary components of this program development are contingent on support by the MRC for a comprehensive proposal of exceptional merit.

The anticipated starting date will be **January 1, 1993**. Salary will be commensurate with qualifications and experience. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of British Columbia encourages qualified women and minority applicants.

The deadline for applications from individuals and groups is **June 30, 1992**.

For further information, please contact:



J.A. Smith, MD, FRCPC
Head and Professor
Division of Medical Microbiology
University of British Columbia
Room 211, 2660 Oak Street
Vancouver, B.C. CANADA V6H 3Z6

**Pharmaceutical/Biotechnology
Careers in Industry
May 8, 1992**

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Your recruitment ad will receive even more visibility in this issue which will be distributed at the American Society for Microbiology (ASM) meeting in New Orleans, May 26-30.

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SCIENCE

**ASPP Lecture Course
Plant Biochemistry 1992**

28 June-19 July, 1992

University of California, San Diego

Organizers: Joseph E. Varner, Himadri B. Pakrasi, Bob B. Buchanan, Douglas D. Randall, William Ogren.

Program: Biochemical reactions create form and function according to the instructions found in the cells. In the last two decades there have been exciting developments in our knowledge of how genetic instructions are read. Meanwhile the information about metabolic pathways and the regulation of flow through these pathways has increased marginally. This course is designed to focus attention of the plant biology community on the biochemical problems of form and function of plant cells that could profitably be addressed using the tools developed during recent years.

Format: The course will be hosted by University of California, San Diego and the Salk Institute. Each speaker will deliver one 1-3 hours lecture in the morning. Discussion sessions will be held in the afternoons and evenings.

Lecturers and Discussion Leaders: N. Amrhein, B. Buchanan, J. Bonner, W. Briggs, M. Chrispeels, E. Conn, G. Coruzzi, A. Darvill, D. Delmer, D. Ho, K. Keegstra, G. Kishore, P. Kolattukudy, C. Lamb, S. Long, G. Lorimer, R. Malkin, R. McCarty, B. Mudd, W. Ogren, H. Pakrasi, D. Randall, C. Ryan, J. Siedow, D. Soll, C. Somerville, J. Varner, R. Vierstra, J. Whitmarsh, S. F. Yang, C. Yocum, J. Zeevaert.

Participants: A maximum of 50. The course will be directed to graduate students, postdoctoral researchers and college and university teachers. A limited number of fellowships are expected to be available to help cover travel and accommodation.

Applications: Should be sent to Prof. J. E. Varner, Department of Biology, Box 1137, Washington University, St. Louis, MO 63130; FAX-314-935-4432 and should consist of a curriculum vitae and a brief statement of the specific reasons for wishing to participate.

Deadline: May 1, 1992.

We anticipate that 'Plant Biochemistry 1993' will be held during the summer of 1993 at University of Wisconsin, Madison. Program Committee—Himadri B. Pakrasi, Kenneth Keegstra and William Ogren.

DRUG METABOLISM SCIENTISTS

Two positions are available to work closely with a multidisciplinary team of chemists, biologists and pharmacologists at our Department of Animal and Exploratory Drug Metabolism. The selected candidates will provide essential pharmacokinetic and metabolism data in both exploratory research programs and preclinical ADME studies required for IND submissions.

MASS SPECTROMETRY - to develop LC/MS/MS based analytical methods for the quantitative and qualitative determination of drugs and metabolites in biological fluids. A B.S./M.S./Ph.D. degree in chemistry, pharmacology, biochemistry or another closely related discipline with 3-5 years research experience is required. You should be well versed in all aspects of HPLC separation techniques and have some background in drug metabolism and pharmacokinetics. Demonstrated ability to apply techniques of mass spectrometry to problems of drug quantitation and structure elucidation is desired as is familiarity with the operation of a SCIEX API III triple quadrupole mass spectrometer. Publication of original research is highly encouraged.

DRUG METABOLISM - in vivo and in vitro metabolism studies of drugs. An M.S. in chemistry/biochemistry (or a related field) with 1-2 years of research experience, or a B.S. in chemistry/biochemistry with at least 3 years of research experience or equivalent is required. Some knowledge of drug metabolism with demonstrated strength in modern analytical techniques such as HPLC is desirable. Other desirable experience includes the isolation, purification and characterization of metabolites from biological fluids and handling of radiolabeled chemicals - or - skills in cell culture, organ perfusion, and small animal surgical techniques.

Merck Research Laboratories are located in Rahway, NJ, approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent. For consideration, send your resume with the names of three references to **Randall J. Bradford, Merck & Co., P.O. Box 2000, AD#114, Rahway, New Jersey 07065, R80-A3**. EEO/AA/VH Employer.



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The ideal candidate for the Nucleic Acid Probes Group will have a substantial background in the organic/physical chemistry of macromolecules and practice in manipulating nucleic acids in solution and on solid supports. Experience or interest in handling clinical samples for developing nucleic acid based infectious disease diagnostics also required. For the Molecular Biology Group, our ideal candidate will have experience in cDNA cloning, protein expression and purification, and techniques of site-directed mutagenesis.

Both positions require a PhD degree in Organic Chemistry, Biochemistry, or Molecular Biology plus 0-4 years of postdoctoral experience.

Please send resumes to Syva, 3403 Yerba Buena Rd., P.O. Box 49013, M/S E1-105, Dept. SWH, San Jose, CA 95161-9013. Equal opportunity employer m/f/h/v.



POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study immune responses to a transmissible tumor in a marine fish. Applicants should be experienced in immunology and/or tumor biology, prior experience with fishes is not required. Appointment for 2 years at \$25,000 per annum in the NIEHS Marine/Freshwater Biomedical Sciences Center at the University of Miami. Send curriculum vitae and names of three references to: **Dr. Michael C. Schmale, Division of Marine Biology and Fisheries, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149.** *The University of Miami is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS IN IMMUNOLOGY available immediately in the laboratories of Elizabeth Mellins, M.D., or Yvonne Paterson, Ph.D. Research will involve various aspects of antigen processing and presentation in the class I and II restricted pathways in humans and mice. Candidates should possess a Ph.D. in molecular biology, immunology or biochemistry. Send curriculum vitae and names of three references to either **Dr. Paterson or Dr. Mellins, 209 Johnson Pavilion, School of Medicine, University of Pennsylvania, Philadelphia, PA 19104-6076.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Available immediately to candidates with experience in biochemistry of signal transduction to study pathways involved in neurite growth. Experience with calcium imaging or molecular biology preferred. Fellowship salary is \$27,000 to \$30,000 and includes health insurance. Send curriculum vitae, summary of research experience and names of references to: **Dr. Robert Messing, University of California at San Francisco, San Francisco General Hospital, Building 1, Room 1011, San Francisco, CA 94110.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN MOLECULAR GENETICS to participate in the development of physical maps of regions of the human genome and the positional cloning of breast cancer-related genes. Candidates with experience in manipulation of yeast artificial chromosomes and cDNA cloning preferred. Please send curriculum vitae and have three letters of reference forwarded to: **Dr. Barbara Weber/Dr. Francis Collins, The University of Michigan, 5510 MSRB-1, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0680.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS

Positions available immediately for candidates with Ph.D., M.D., or D.V.M. degrees to train for independent careers in AIDS-related research. This NIAID AIDS Institutional Postdoctoral Training grant is designed to provide trainees with 1 to 3 years of intense basic or applied research experience in the areas of HIV infection of man and related animal models. AIDS research at the University of California, Davis, has emphasized the unique availability here of immunodeficiency-inducing lentivirus infections in Old World primate (SIV) and domestic cats (FIV) as models for the human disease. These are multidisciplinary programs that include virology, molecular virology, immunology and pathology with an emphasis on understanding the host and viral determinants of pathogenesis. *Only U.S. citizens or permanent residents may apply for this training program.* Applicants should submit curriculum vitae, statement of research interests, reprints and the names, addresses and telephone numbers of three references to: **Dr. Niels Pedersen, c/o Anita Moore, University of California, Davis, Department of Medical Pathology, Davis, CA 95616.** *The University of California is an Equal Opportunity/Affirmative Action Employer and encourages applications from minority groups and women.*

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POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR ENDOCRINOLOGY. Position available July 1992 for studies of nuclear receptor action. Research involves in vitro transcription, purification of transcription factors and mutagenesis. Background in molecular biology required. Send curriculum vitae, description of research background, and three letters of reference to: **Dr. Larry Jameson, Chief, Thyroid Unit, Massachusetts General Hospital, Boston, MA 02114.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS

Postdoctoral positions for an NCI training program in molecular and cellular mechanisms of carcinogenesis are available at The University of Texas (UT) M. D. Anderson Cancer Center-Science Park. Research programs focus on the following areas: DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, role of oncogenes and/or tumor suppressor genes in multistage carcinogenesis, normal and tumor cell differentiation, retrovirology, chemoprevention and nutrition in cancer. *Applicants must be U.S. citizens or permanent residents and must have a Ph.D., M.D., or D.V.M. degree.* For applications forms, contact: **Dr. Thomas Slaga, Director, UT Science Park—Research Division, P.O. Box 389, Smithville, TX 78957; telephone: 512-237-2403.** *We are an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

HARVARD/POSTDOCTORAL POSITIONS are available to study molecular mechanisms of atherosclerosis and hypertension with special emphasis on growth and differentiation of vascular endothelial and smooth muscle cells. Experience with molecular cloning, gene regulation, cell biology, or transgenic models is desirable. Please send curriculum vitae and names of three references to: **Dr. M. E. Lee, Cardiovascular Laboratory, Building 2, Room 365, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION available immediately to study regulation of neuronal gene expression in models of CNS injury. Salary \$27,000 to \$30,000 including health insurance. Send curriculum vitae, summary of research experience, and names of references to:

**Dr. Michael Miles
University of California at San Francisco
San Francisco General Hospital
Building 1, Room 101
San Francisco, CA 94110**

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POSTDOCTORAL POSITION. Investigation of tumor cell resistance to an anticancer drug by the use of techniques of molecular biology and enzymology. Ph.D. in biochemistry, cell biology or a closely related discipline required, and experience in enzyme purification and kinetics and/or directed mutagenesis an advantage. Send curriculum vitae with names of three references to: **Raymond L. Blakley, Ph.D., D.Sc., Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.** *Affirmative Action/Equal Opportunity Employer.*

NEUROBEHAVIORAL POSTDOCTORAL POSITIONS: Available for interdisciplinary neuropsychobiological research training program. The program objectives are to facilitate the development of investigators who are familiar with the integrated comments on neuropsychobiology as well as their individual anatomical, biochemical, physiological, or clinical research specialties. Rapidly developing technological areas that relate to the nervous system are periodically incorporated into the programs: for example, molecular genetics, neuropsychobiology, CNS virology (including AIDS), and in vivo metabolic imaging. In addition, to the intensive research experience in one or more laboratory disciplines, the conceptual basis of neurosciences as it relates to an understanding of the normal and maladaptive development of human neurobiology and behavior is emphasized in seminars. For a catalogue of opportunities and application forms, contact: **Dr. Everett H. Ellinwood, Duke University Medical Center, P.O. Box 3870, Durham, NC 27710.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study molecular mechanisms regulating expression of neurotrophic factors in the CNS. Experience in recombinant DNA and cell culture techniques is desirable. Send curriculum vitae and names of three references to: **Dr. Paul Isackson, Mayo Clinic Jacksonville, 4500 San Pablo Road, Jacksonville, FL 32224.** *Equal Opportunity Employer. Drug-free and smoke-free workplace.*

POSTDOCTORAL POSITIONS available immediately to study mechanisms of growth factor and oncogene intracellular signaling and to develop new cancer drugs based on the modulation of these signaling pathways. Applicants must have a Ph.D., M.D. or equivalent degree and a background in biochemistry, molecular biology, cell biology or pharmacology. The position offers the opportunity for independent research in a well-equipped, multidisciplinary laboratory in an attractive work environment. Applications and three letters of recommendation should be sent to: **Dr. Garth Powis, Arizona Cancer Center, The University of Arizona Health Sciences Center, 1515 North Campbell Avenue, Tucson, AZ 85724.** *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

POSTDOCTORAL POSITION IN MOLECULAR EVOLUTION: A position is available immediately to study the theory of phylogenetic inference from molecular data, molecular population genetics, and/or to analyze DNA sequence data for studying the pattern of nucleotide substitution or adaptive evolution. *An Affirmative Action/Equal Opportunity Employer. Women and Minorities Encouraged to Apply.* Send curriculum vitae and names of three references to: **Dr. Masatoshi Nei, Institute of Molecular Evolutionary Genetics and Department of Biology, Pennsylvania State University, 328 Mueller Laboratory, Box S, University Park, PA 16802-5303.**

POSTDOCTORAL FELLOW MOLECULAR MECHANISMS REGULATING CELL CALCIUM

A position is available for a postdoctoral fellow to study the molecular mechanisms regulating cell calcium. Studies will use two model systems: *Xenopus* oocytes and epithelial cells. Calcium influx, oscillations, and waves will be studied electrophysiologically and with laser scanning confocal microscopy. Heterologous proteins involved in calcium regulation will be expressed from cDNAs and endogenous calcium regulatory proteins will be depleted using antisense oligos. A background in recombinant DNA techniques or cell biology is preferred. Send curriculum vitae and the name and address of three references to: **Dr. Michael J. Welsh, Departments of Internal Medicine and Physiology and Biophysics, University of Iowa College of Medicine, 500 EMRB, Iowa City, IA 52242.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS FOR BASIC SCIENTISTS—CARDIOVASCULAR AND INTERVENTIONAL RADIOLOGY JOHNS HOPKINS SCHOOL OF MEDICINE

Unique opportunity for basic scientists with a Ph.D. and background in cardiovascular biology/mammalian physiology. Applicants must have a desire to perform basic research to develop/evaluate new procedures that will eventually be used to treat patients through minimally invasive vascular/interventional radiology. Similar basic research has contributed to developing clinically important procedures such as angioplasty, intraarterial drug therapy, and nonsurgical treatments of vascular and nonvascular disorders. Excellent opportunities exist for academic career development in this rapidly growing area of medical imaging research. This 2-year fellowship provides exposure to projects for head, neck, chest and abdominal applications. Fellows work with clinical and basic science mentors as part of a multidisciplinary group. *Applicants must be U.S. citizen or permanent resident.* *Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Minority applicants are encouraged to apply.* Send letter, curriculum vitae and three references by 1 June 1992 to: **James H. Anderson, Ph.D., Johns Hopkins University, School of Medicine, 330 Traylor Building, 720 Rutland Avenue, Baltimore, MD 21205.**

Dean, School of Graduate Studies

Nomination and/or applications are requested for the position of Dean, School of Graduate Studies, Meharry Medical College.

A historically black institution, Meharry was founded in 1876. The School of Graduate Studies was established in 1972 and now offers the Ph.D. in biochemistry, microbiology, pharmacology, physiology, and biomedical sciences, as well as the M.D./Ph.D. degree. The Master of Science degree in Public Health is offered with major emphasis in occupational medicine, preventive medicine, health services administration, public health administration, and public health nutrition. The potential exists for expanding the Ph.D. program to other areas of interest.

The Dean of the School of Graduate Studies has the overall responsibility to provide leadership for all graduate programs in the College and to manage restricted and unrestricted budgets of the Graduate School.

The Graduate Dean is the chief academic and administrative officer of the Graduate School and works closely with other Deans, Vice Presidents and the President. The Dean reports directly to the Vice President for Academic Affairs. Candidates should hold the terminal degree in a biomedical science discipline and be eligible for a tenured appointment to the graduate faculty. A strong background in research, a distinguished record of accomplishments as an administrator and experience in procurement of extramural funding are essential. Candidates should have excellent communication skills and be able to work effectively in a university environment, as well as with extramural agencies. The recruited individual is expected to enhance the growth of research programs, sustain excellence in graduate programs, encourage the development of new graduate programs commensurate with Meharry's resources and stimulate interaction between basic science and clinical investigators.

Nominations and/or applications will be accepted until the position is filled. Applicants should submit a letter of interest addressing special qualifications, detailed resume and a list of five references to:

James G. Townsel, Ph.D.
Chairperson, Search Committee
c/o Department of Physiology
Meharry Medical College
1005 D. B. Todd Blvd.
Nashville, TN 37208

Meharry Medical College is an equal opportunity/affirmative action employer. Minority and women candidates are encouraged to apply.

Meharry Medical College

NATIONAL WILDLIFE RESEARCH CENTER ECOLOGIST

The National Wildlife Research Center (N.W.R.C.) in Taif, Saudi-Arabia, invites applications for the position of an ECOLOGIST. The N.W.R.C., located about 30 km east of Taif, is a division of the National Commission for Wildlife Conservation and Development in Saudi-Arabia. The Center is committed to the captive breeding and reintroduction of endangered animals as well as wildlife conservation and research programs throughout the Kingdom.

The ecologist will be engaged in the development of projects determining the impact of overgrazing, monitoring the recovery of vegetation in protected areas, evaluating the potential of areas for reintroduction, and assess the carrying capacity for various species. He will be working closely with other biologists on reintroduction projects and the conservation of endangered species in Saudi-Arabia.

Candidates should possess a Ph.D. in ecology, have extensive experience in studying animal plant interactions, preferably in semi-arid areas. He also should be familiar with ecological modelling and the assessment of carrying capacity for various species of ungulates. Experience with GIS-systems would be welcome. Excellent skills in written and spoken English are required.

We offer a very competitive salary, 2 months annual vacation, 2 return fares to the country of recruitment, accommodations with food, use of vehicles and transport allowance.

Applications should consist of a letter of interest, curriculum vitae and names and telephone numbers of three references. Nominations with supporting statements are also welcome. The position is immediately available. Applications should be submitted before May 15 to: **Search Committee (Ecologist), National Wildlife Research Center, P.O. Box 1086, Taif, Kingdom of Saudi-Arabia. Phone: +966-2-745-5188. Fax: +966-2-745-5176.**

ASSISTANT PROFESSOR UNIVERSITY OF MINNESOTA DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY

A full time tenure track position is available at the rank of Assistant Professor. Candidates must hold a Ph.D., in experimental pathology or a related biomedical science with a minimum of three years postdoctoral experience in protein peptide chemistry to include coordinate effects of polypeptide growth factors and extracellular matrix proteins on cell growth and differentiation. Emphasis on the role of growth factors on cell adhesion, motility and invasion as they relate to tumor metastasis and/or wound healing. Other areas of research interest include biomaterial design, biocompatibility and the use of growth factors and extracellular matrix proteins to enhance cell seeding of biomaterial surfaces (e.g. vascular grafts). Candidate will be expected to develop an independent on-going research program in one of these areas.

Individual will participate in teaching of residents, medical students and graduate students.

Applicants should send curriculum vitae, a brief synopsis of recent research and teaching activity plus three letters of reference to:

**Assistant Professor-Expt'l Pathology Search
Committee
Box 198 UMH
Department of Laboratory Medicine & Pathology
420 Delaware St. S.E.
Minneapolis, MN 55455**

Deadline for receipt of applications is May 15, 1992. Position to begin approximately July 1, 1992. *The University of Minnesota is an equal opportunity educator and employer.*



La Jolla Cancer Research Foundation Postdoctoral Training Program Cell-Matrix Interactions

The La Jolla Cancer Research Foundation seeks candidates for an NIH Postdoctoral Training Program in cell-matrix interactions. Successful candidates will be able to pursue their research with state-of-the-art equipment and methodologies under the direction of a faculty with broad-based expertise in the molecular, cellular and developmental aspects of matrix biology.

Program Faculty

Eileen Adamson, Ph.D.

Mechanisms involved in epithelium formation in F9 embryonal carcinoma cell differentiation.

Kathryn Ely, Ph.D.

X-ray crystallographic structures of extracellular matrix proteins and receptors.

Eva Engvall, Ph.D.

Basement membranes and cell behavior. Growth factors and neuronal stem cells.

Michiko Fukuda, Ph.D.

Roles and mechanisms of glycosylation in development and oncogenesis.

Minoru Fukuda, Ph.D.

Roles of carbohydrates and glycoproteins in cell recognition.

José Luis Millán, Ph.D.

Molecular and cellular control of spermatogenesis.

Michael Pierschbacher, Ph.D.

Cell adhesion mechanisms; effects of adhesion on cell behavior.

Barbara Ranscht, Ph.D.

Molecular control of axon growth patterns in developing vertebrate embryos.

Erkki Ruoslahti, M.D.

Molecular biology of cell adhesion molecules, their receptors and proteoglycans.

William Stallcup, Ph.D.

Cell surface and matrix molecule interactions in the differentiation of the vertebrate nervous system.

Candidates may have either a Ph.D. or M.D. and must be U.S. citizens or permanent residents. Minorities and women are particularly encouraged to apply. Send applications including curriculum vitae and the names of three references to Dr. Eva Engvall.

**La Jolla Cancer Research Foundation
10901 N. Torrey Pines Road, La Jolla, CA 92037
(619) 455-6480**

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Human Resources Reference-Dept. EK


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DIRECTOR OF MEDICAL RESEARCH

Marshfield Clinic, a 400-physician multispecialty not-for-profit group practice, is seeking a M.D. or Ph.D. Director for its expanding Medical Research Foundation. Experience in medical research plus management and excellent communication skills are required. The Director is responsible for the planning, development, implementation and evaluation of basic and applied clinical research programs. He or she reports directly to the President of the Marshfield Clinic.

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Send curriculum vitae with cover letter to:



William O. Myers, M.D.
Chairman
Search Committee
1000 North Oak Avenue
Marshfield, WI 54449

MARSHFIELD CLINIC

ASSOCIATE EDITOR

Two editorial positions at *Science* are available for either a biochemist and/or bio-organic chemist with knowledge of high-resolution structural analysis, or a cell or molecular biologist with a background in physiology, medicine or neuroscience. We are seeking PhD scientists with at least two or three years of post-doctoral experience and publications in refereed literature. Editors have varied responsibilities including solicitation, selection, and editing of manuscripts. Previous editorial experience is not required. This is a full-time position in our Washington offices.

Please send resume and a list of publications with cover letter and salary requirements to:

Mr. Gregory Stokes
AAAS
1333 H Street, NW
Washington, DC 20005

EOE

C hallenging Research Opportunities

LIGAND Pharmaceuticals is a rapidly growing drug discovery company that is combining powerful molecular biology with pharmacology and medicinal chemistry to identify, develop, and commercialize a diverse array of novel therapeutics. The thrust of our research, and our proprietary positions, are focused in the area of intracellular receptors. These receptors, which function as ligand-dependent transcription factors, modulate the activities of hormones such as estrogen, retinoic acid, vitamin D, thyroxine, and glucocorticoids. We are seeking talented individuals who want to become part of a team that discovers drugs for the treatment of cancer, dermatological, cardiovascular, and inflammatory diseases. LIGAND is establishing a cutting-edge, multidisciplinary team of chemists, pharmacologists, molecular biologists, and biochemists that provides an integrated approach to drug discovery. A commitment to creativity, excellence and the desire to work as a member of a multidisciplinary team are essential qualities for each of the positions listed below.

Pharmacology:

Senior Research Pharmacologists with PhDs in either Pharmacology or Physiology, with 1-4 years' experience studying the *in vivo* or *in vitro* activities of hormones, such as the sex steroids, vitamin D, retinoic acid, or glucocorticoids. The successful candidate should establish a cutting-edge basic research program, working closely with chemists and molecular biologists to discover novel drug candidates. One should have a keen interest in understanding the molecular bases for the pharmacological actions of novel drug candidates.

Senior Research Pharmacologists with PhDs in either Pharmacology or Toxicology, with 2-4 years of experience studying the absorption, distribution, metabolism, and excretion of xenobiotics. The successful candidate will become part of a multidisciplinary research team, dedicated to the discovery of novel therapeutic agents. A knowledge of the toxicology and regulatory requirements necessary to characterize novel agents for clinical evaluation is necessary.

Research Associates with BS and/or MS degrees in Pharmacology, Biochemistry, Physiology, or Biology with 1-2 years' experience in a laboratory setting. Research Associates will work with a Senior Scientist and be involved in conducting pharmacology and/or drug metabolism studies. The successful candidates will have a desire to work as a member of a research team, and to provide

intellectual input into experimental design and data interpretation.

Cellular and Molecular Biology:

Cellular and Molecular Biologists with a PhD whose primary focus will be to study members of the steroid receptor superfamily and their cognate ligands at the molecular and cellular level. Research in this group will include molecular, biochemical and cell biological approaches to examine the function of the specific receptor ligands and the target genes that they regulate. Areas of focus will include characterization of retinoid receptor isoforms and novel ligands that modify their activity, as well as characterization of novel members of this receptor superfamily.

Biochemistry:

Research Biochemists with PhDs in either Biochemistry or Molecular Biology. We seek individuals with 2-4 years' postdoctoral experience and familiarity in the biology, structure and function of intracellular receptors and/or transcription factors. Particular consideration will be given to those individuals with expertise in the areas of protein chemistry or biochemistry, and in protein physical structural analysis. We also seek an individual with skills in yeast genetics and/or yeast recombinant protein expression and production.

LIGAND provides a stimulating intellectual environment with contemporary research facilities. We offer competitive salaries commensurate with your experience and accomplishments, a comprehensive benefits package, and ample opportunities to impact our scientific programs. For confidential consideration, please submit your resume or CV to either: **Dr. Scott Hayes (Pharmacology)**, **Dr. Rich Heyman (Cellular and Molecular Biology)**, or **Dr. Wes Pike (Biochemistry)** at LIGAND Pharmaceuticals Inc., 9393 Towne Centre Drive, Suite 100, San Diego, CA 92121. We are an equal opportunity employer.



LIGAND
PHARMACEUTICALS

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP available immediately to study control of gene expression during tooth enamel formation. We will study alternative splicing, expression of X and Y chromosomal amelogenin genes [*Biochemistry* 30, 1075 (1991)], and mRNAs in odontogenic tumors. Required are background in molecular biology and interest in development of mineralized tissues. Send curriculum vitae and names of three references to: **Dr. Carolyn Gibson, Department of Anatomy, University of Pennsylvania School of Dental Medicine, 4001 Spruce Street, Philadelphia, PA 19104-6002.**

POSTDOCTORAL FELLOWSHIP

To study eicosanoid and cytokine interrelationships in the pulmonary alveolar macrophage. Background in arachidonic acid metabolism preferred. Cell culture experience, immunoassay and HPLC experience desirable. Send curriculum vitae to: **Dr. Laurence M. Demers, Department of Pathology, The M. S. Hershey Medical Center, Penn State University, Hershey, PA 17033. An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

POSTDOCTORAL RESEARCH FELLOW. NIH-funded position is immediately available to develop and characterize tissue-targeted imaging agents and probe cellular bioenergetics with diagnostic pharmaceuticals. Send curriculum vitae to: **David Pivnick-Worms, M.D., Ph.D., Department of Radiology, Harvard Medical School, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115; telephone: 617-732-6285. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSISTANT IN MAMMALIAN TISSUE CULTURE AND MOLECULAR BIOLOGY (MTCMB). B.S. or B.A. with at least 1 year of experience with mammalian tissue culture, in particular mouse embryonic stem cells and teratocarcinoma cells. Experience with all aspects of tissue culture, including DNA transfection and isolation of clones. Please send résumé with two or three references to: **Research Assistant MTCMB Search, Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position open for a Ph.D. with background in cell biology to study intracellular protein trafficking and gamma-carboxylation of vitamin K-dependent proteins. The project will focus on processing of blood clotting factors and cartilage matrix proteins. Experience in immunocytochemical and protein labeling techniques is required. Send curriculum vitae and names of three references to: **Dr. Reidar Wallin, Rheumatology, Department of Medicine, The Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH POSITIONS

Postdoctoral positions are available to study the regulation and function of *E. coli* genes involved in the repair of alkylation damage to DNA. Initial appointments will be for 1 year with possible renewals for subsequent years. Applicants should submit curriculum vitae, statement of research interests and arrange to have three letters of reference sent to:

**Dr. Michael Volkert
Department of Molecular Genetics and Microbiology
University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01655**

RESEARCH ASSISTANT IN MOUSE MOLECULAR EMBRYOLOGY (MME). B.S./B.A. required and familiarity with basic molecular biology techniques. Experience to include some areas in animal surgery, including isolation and reimplantation of mouse eggs and blastocysts, microinjection of eggs and blastocysts ovarian transplants, and embryo freezing. Please send résumé with two or three references to: **Research Assistant MME Search, Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH BIOCHEMIST

U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), San Francisco, California. ARS invites applications for a research associate position. Research focus is to study the functions of human plasma glutathione peroxidase and other selenoproteins. A Ph.D. in biochemistry, molecular biology or related field. Knowledge of mammalian biochemistry and enzymology is required. Experience in protein purification, HPLC and electrophoresis is desirable. Two-year appointment with benefits. Salary is commensurate with experience (\$35,017 to \$41,970 per year). For further information, contact: **Dr. Wayne Chris Hawkes, at 415-556-1377, USDA, ARS, WHNRC, P.O. Box 29997, San Francisco, CA 94129. Résumés and applications in response to this ad should be marked RA-92-50. ARS is an Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FELLOWSHIPS for NIH-funded studies of human antibodies that inactivate coagulation factor VIII, structure-function analysis of factor VIII, and studies of the nature of the molecular defects in hemophilia A. Immediate openings within our Transfusion Medicine Research SCOR for two candidates with M.D. or Ph.D. in molecular biology, cell biology or biochemistry. Salary: \$23,000 to \$33,000 depending upon experience. Send curriculum vitae, including a summary of research accomplishments and publications, to: **Dorothea Scandella, Ph.D., or Leon W. Hoyer, M.D., Holland Laboratory, American Red Cross, 15601 Crabbs Branch Way, Rockville, MD 20855. Equal Opportunity Employer, M/F/V/H.**

A full-time position is immediately available for a **RESEARCH ASSOCIATE** responsible for studies of interphotoreceptor retinoid-binding protein gene expression. Doctorate or equivalent and 5 years of experience in both molecular biology and ophthalmology/visual sciences at the postdoctoral level are required. Responsibilities include coordination of collaborations with transgenic mice, expression cloning of DNA binding proteins, nuclear extract preparations, preparation of DNA constructions, library screening (genomic and cDNA), Southern, Northern, Southern blots, gel mobility shift assays, DNase I protection assays; extensive experience needed in isolation and characterization of large retina proteins, DNA sequencing, oligonucleotide synthesis, slit lamp and fundoscopic exams of animals, surgical techniques in the eye. Salary is \$33,000 per year. If interested, send résumé to: **Georgia Department of Labor, 1275 Clarendon Avenue, Avondale Estates, GA 30002, or to the nearest Georgia Job Services Center. Refer to Job Order #5534822.**

RESEARCH ASSOCIATE. Investigate projects concerning the role and regulation of parathyroid hormone-related protein in cultured aortic smooth muscle cells; study the effect of several vasoactive substances, i.e., angiotensin 11, serotonin, endothelin, etc., on the expression of this protein by SMC, carry out in vivo studies to investigate the physiological function of PTH-RP in the rat aortic smooth muscle and its regulation; use Southern, Northern and Western blots, RNase protection assay, PCR, run off assay, DNA sequencing and screening, cell culture and other cell biology; 1 1/2 years of experience plus B.Sc. degree in biological science—related required; \$2100 per month; place of employment and interviews: Los Angeles, California. Send your résumé to **Job #SS-19530, P.O. Box 9560, Sacramento, CA 95823-0560, no later than 24 April 1992.**

Applications are invited for a **RESEARCH ASSOCIATE** position in the Department of Materials Science and Engineering at North Carolina State University (NCSU). Applicant's responsibility will emphasize non-destructive electrical testing of semiconductors and provide theoretical support for advanced diagnostic techniques. A proven record of refereed publications, external funding to support research, and participation in graduate teaching related to structural, chemical and electrical characterization of semiconductors is essential. Applicant must have a Ph.D. in electronics/material engineering and 5 years of teaching and research experience along with advanced knowledge of DLTS, SEM/EBIC, SPV and LM-PC lifetime theory and practice. Forward résumé and three references to: **Professor G. A. Rozgonyi, Box 7916, NCSU, Raleigh, NC 27695. FAX: 919-515-7724. Deadline: 15 May 1992.**

POSITIONS OPEN

MOLECULAR/CELLULAR MUSCLE PHYSIOLOGIST

A position for a **RESEARCH ASSOCIATE** is available immediately for someone trained in molecular biology with an interest in the regulation of muscle gene expression. A background in cloning, Northern and Southern analysis, "footprinting," and production and assay of chimeric genes desirable. Salary \$22,000 to \$27,000. Send curriculum vitae, visa status, telephone numbers and addresses of three references to: **Norman Briggs, Department of Physiology, Box 551, Richmond, VA 23298. Medical College of Virginia/Virginia Commonwealth University is an Equal Opportunity Employer.**

MARKETING SPECIALIST MOLECULAR BIOLOGY. If you are looking for a transition from the molecular biology laboratory to a stimulating business environment, Bio-Rad Laboratories can supply you with the challenges you want in your career. We are looking for a highly motivated individual with a solid background in molecular biology and 2+ years of lab experience in RNA/DNA electrophoresis, Southern/Northern blotting, and DNA sequencing, to join our marketing team. The marketing specialist applies technical expertise in supporting customers, training sales reps, and assisting in product management. Excellent verbal and written communication skills and the freedom to travel are essential. B.S. in molecular biology or equivalent required. M.S. preferred.

Please send your résumé to: **Bio-Rad Laboratories, Life Science Group, Department #147, 2000 Alfred Nobel Drive, Hercules, CA 94547. Equal Opportunity Employment, M/F/H/V.**

BIO-RAD Bio-Rad Laboratories

MOLECULAR CYTOGENETICIST. Duke University Medical Center, Durham, North Carolina, is recruiting an experienced Ph.D. or M.D. to direct its pediatric-obstetrics cytogenetics laboratory. The director will have a primary appointment in pediatrics and a secondary appointment in obstetrics. The director will work closely with geneticists and genetic counselors in the Departments of Pediatrics and Obstetrics. The director will be able to develop a full research program and will also be able to join in the ongoing research of various genetic/biochemical disorders in close association with our molecular genetics and mass spectrometry facilities. The laboratory currently processes 600 to 700 samples per year. Approximately half are prenatal studies. Training in molecular techniques is preferred. Candidates should be Board-certified or -eligible by the American Board of Medical Genetics. Please send a letter of application and curriculum vitae to: **Y. T. Chen, M.D., Ph.D., Division of Pediatric Genetics and Metabolism, Box 3028, Duke University Medical Center, Durham, NC 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH SCIENTIST responsible for the execution of scientific research projects with emphasis on the design, development and preparation of immunoconjugates of cytotoxic drugs with monoclonal antibodies and growth factors. Incorporates extensive knowledge of peptide chemistry and stereoselective organic synthesis for the design and synthesis of new linkers and biologically active analogs of highly potent drugs. Develops practical methods for the chemical modification of antibodies and peptide growth factors and procedures for conjugating them with drugs. Prepares radiolabeled antibodies and immunoconjugates for pharmacological evaluation. Maintain substantial knowledge of the state of the art principles and methods in organic synthesis, protein purification and modification spectroscopy and chromatography. Contributions to specific literature and conferences. Coordinates interdepartmental activities with biochemist, cell biologists and pharmacologists. Demonstrated proficiency in stereoselective organic synthesis, peptide chemistry, antibody modification, and conjugation with biologically active drugs, scientific creativity and independent research. Good chromatographic and spectroscopic techniques and lab skills with cytotoxic agents. Minimum requirements: Ph.D. degree in chemistry and 1 year of experience as a research scientist; 40 hours per week; Monday to Friday; 8:00 a.m. to 4:00 p.m.; salary: \$45,000 per year. Applicants should respond by submitting two résumés to: **Job Order #1935, P.O. Box 8968, Boston, MA 02114.**

**UNIVERSITY OF CALIFORNIA
DAVIS**

DIRECTOR, CENTER FOR MOLECULAR CELL BIOLOGY

The University of California at Davis invites applications and nominations for the position of full professor and Director of a newly established Center for Molecular Cell Biology.

The Center for Molecular Cell Biology is a campuswide unit that will provide research space, integrate existing resources and initiate new interdisciplinary programs in basic research. The Director will have the principal role in selecting and recruiting up to 19 new junior and senior faculty to be affiliated with the Center with academic appointments in existing departments.

The Director will be an internationally recognized scientist with a vigorous research program in molecular, cellular or developmental biology. The successful candidate will exhibit a broad range of scientific interests and have proven leadership skills. The Director's position involves a faculty appointment at the professorial level in an academic department in one of the colleges/schools with programs in molecular cell biology. The Director reports to the Dean of the Division of Biological Sciences.

To assure full consideration, nominations and applications should be received by 1 June 1992. The position will remain open until filled. Applications should include a letter of interest, curriculum vitae, and the names and addresses of at least three references. Nominations and applications should be sent to:

John W. B. Hershey
Chair, Center Director's Search Committee
Office of the Dean
Division of Biological Sciences
University of California
Davis, CA 95616

Informal queries can be directed to Dr. John W. B. Hershey, Department of Biological Chemistry, at 916-752-3235.

The University of California, Davis and the Division of Biological Sciences are interested in candidates who are committed to the highest standards of scholarship and professional activities, and to the development of a campus climate that supports equality and respect for differences based on gender, cultural ethnicity, level of disability and sexual preference. *The University of California is an affirmative action/equal opportunity employer.*

**SIMON FRASER UNIVERSITY
DEPARTMENT OF BIOLOGICAL SCIENCES**

Applications are invited for two tenure-track positions at the Assistant Professor level in the areas of: **1. Plant Physiology, 2. Plant Molecular Biology.**

Applicants should specify which of the two positions they are applying for. Applicants should have post-doctoral experience and a strong research record. They should be able to contribute to undergraduate teaching in one or more of the following areas: vascular plants, plant physiology, plant molecular biology, general biochemistry, general biology. They will be expected to develop an active and independent research program and contribute to graduate training and education in their area of specialization. There are many possibilities for collaborative research in a number of areas and excellent facilities exist for physiological and molecular biological work. Positions available January 1, 1993; starting dates negotiable.

Applicants should submit a curriculum vitae, reprints and a statement of current and future research interests, and should arrange to have three letters of recommendation, including comments on their research and teaching abilities, sent to:

Dr. B. A. McKeown, Chair
Dept. of Biological Sciences
Simon Fraser University
Burnaby, B. C.
Canada, V5A 1S6

**The closing date for applications for both positions—
July 1, 1992 or until filled**

Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to qualified applicants. This advertisement is directed to applicants who at the time of application are eligible for employment in Canada.

National Institute on Aging

**MEDICAL STAFF FELLOWSHIP IN
NEUROPHARMACOLOGY, USING
POSITRON EMISSION TOMOGRAPHY**

Medical Staff Fellowship beginning July 1992 or 1993, for studying drug modulation of human brain function, metabolism and blood flow in relation to aging and disease (e.g. Alzheimer's disease, geriatric depression, Down Syndrome and other retardation), at rest and during cognitive stimulation, using POSITRON EMISSION TOMOGRAPHY (PET). Experience in CLINICAL PHARMACOLOGY AND PHARMACOKINETICS would be very useful. Responsibilities include writing and conducting clinical protocols, and limited clinical care on 8-bed clinical research unit. Position, which is tenure track, is an excellent opportunity for neurologists, psychiatrists, clinical pharmacologists or other clinicians interested in vivo brain imaging and neuropharmacology, who plan a research career. M.D. degree and medical license (ECFMG if foreign physician) required. Fellows work in Laboratory of Neurosciences (S.I. Rapoport, M.D., Chief), National Institute on Aging, Bethesda, MD. Starting salary commensurate with training and experience. For further information, contact:

M.B. Schapiro, M.D., Chief
Brain Aging and Dementia Section
Laboratory of Neurosciences
National Institute on Aging
National Institutes of Health
Building 10, Room 6C-414
9000 Rockville Pike
Bethesda, MD 20892, USA
Tel: 301-496-4754



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**ASSISTANT PROFESSOR
UNIVERSITY OF MINNESOTA
BIOMEDICAL ENGINEERING CENTER**

A full time tenure track position is available at the rank of assistant professor for candidates who hold a Ph.D., in a biological science or chemistry with a minimum of three years postdoctoral experience to include the use of techniques of computational chemistry (molecular mechanics, dynamics, semi-empirical and *ab initio* calculations) and X-ray crystallography of small peptides. Experience with a number of graphics packages would be advantageous. Candidate will be expected to develop an independent research program and on-going research program in practical applications in the area of bio-engineering and drug design.

Individual will participate in the teaching and training programs of the Biomedical Engineering Center and department teaching programs for residents, medical students and graduate students.

Applicants should send curriculum vitae, a brief synopsis of recent research and teaching activity plus three letters of reference to:

BMEC Assistant Professor Search Committee
Box 198 UMHC Department of Laboratory Medicine &
Pathology
420 Delaware St. S.E.
Minneapolis, Mn. 55455

Deadline for receipt of applications is May 15, 1992. Position to begin approximately July 1, 1992. *The University of Minnesota is an equal opportunity educator and employer.*

POSITIONS OPEN

DANA-FARBER CANCER INSTITUTE/ CHILDREN'S HOSPITAL INFECTIOUS DISEASES AND DIVISION OF EMERGENCY MEDICINE

Ph.D. LEVEL SCIENTIST to perform research on the pathogenesis of endotoxin shock. Experience in protein and polysaccharide chemistry is required and experience in molecular biology is desirable. Candidate will be expected to work independently and generate grant support in 2 to 3 years. Respond with curriculum vitae to: **George Siber, M.D., Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** To assure full consideration, curriculum vitae must be received prior to 1 May 1992. *Women and minorities are encouraged to apply.*

RESEARCH SCIENTIST. Duties: Research uses of company's permeation facilitator drugs in enhancement of drug permeation through tissue (skin) and in chemotherapy of brain tumors. Techniques: excise skin from animals and mount onto Franz diffusion cells for treatment with company's permeation facilitator drugs; collect samples from diffusion cells at different time intervals for drug permeation and absorption studies; evaluate drug concentration in diffusion cells and in skin by using high-performance liquid chromatography and radioimmunoassay; microneurosurgical excision of brain tumor tissue for evaluation of effects of combinations of company's permeation facilitator drugs with chemotherapeutic agents and selective hyperthermia; data analysis using biomedical statistics. Requirements: (1) M.D. or equivalent. (2) One year of research experience involving treatment of brain tumors using chemotherapy and microneurosurgery. (3) Experience in animal surgery. (4) Experience in radioimmunoassay and tissue culture techniques. (5) Coursework or experience in biomedical statistics. Forty hours per week, 9:00 a.m. to 5:00 p.m.; \$34,000 per year. Submit curriculum vitae to **The Philadelphia Job Bank, 444 North 3rd Street—3rd Floor, Philadelphia, PA 19123.** Job order #4427998.

TECHNICAL MARKETING SPECIALIST

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BIO-RAD Bio-Rad Laboratories

STAFF SCIENTIST. Fred Hutchinson Cancer Research Center. Applications are invited for a Ph.D.-level position in a well-established transplantation biology laboratory for an investigator with training in basic immunology. Interest and knowledge of cellular immunology, mammalian MHC genes, and molecular immunology are desired. Specifically, we are seeking someone to continue immunology work in the setting of canine bone marrow transplantation. This position provides an opportunity to interact in a large, internationally known research group and to perform groundbreaking work in transplantation biology. The position is funded for 4 years. It is anticipated that opportunities for collaborative and independent research will be pursued. A support technician and supply budget will be provided. The staff scientist will work directly with the principal investigator. *We are an Equal Opportunity Employer and provide a smoke-free environment.* Salary will be commensurate with experience. Applications, including curriculum vitae, a statement of research interests, and desired salary range, should be sent to: **Chairman of the Search Committee for a Staff Scientist in Transplantation Biology, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104.**

POSITIONS OPEN

COLUMBIA UNIVERSITY CENTER FOR RADIOLOGICAL RESEARCH

RESEARCH SCIENTIST position available in radiation biology/biophysics at Columbia University. Candidates should be familiar with a variety of in vitro cellular techniques such as cellular survival, chromosome damage and DNA strand break measurement. Preference will be given to persons with experience of radiological physics and the use of charged particle accelerators. Successful candidates may be eligible for tenure-track after a trial period. Applications should be addressed to: **Professor Eric Hall, Director, Center for Radiological Research, College of Physicians & Surgeons, Columbia University, 630 West 168th Street, New York, NY 10032.** *An Affirmative Action/Equal Opportunity Employer.*

MEETINGS

PROGRAM IN MATHEMATICS AND MOLECULAR BIOLOGY III COMPUTATIONAL APPROACHES FOR NUCLEIC ACID STRUCTURE AND FUNCTION

Santa Fe, New Mexico, 7 to 11 November 1992. Sessions include: Structure and Function of RNA, Simplified Models of DNA, Structural Theory, Graphics Demonstrations, Computation of DNA Structures, Computation of Molecular Evolution. Limited travel funds available and students have priority. Abstract deadline: 15 September 1992. For information contact: **PMMB, 103 Donner Laboratory, University of California, Berkeley, CA 94720.** FAX: 510-642-4071. sylviaj@violet.berkeley.edu.

ANNOUNCEMENTS

REQUEST FOR PROPOSALS



RETINAL CELL RESCUE AND TRANSPLANTATION

THE RP FOUNDATION FIGHTING BLINDNESS invites proposals for new initiatives directed toward retinal cell rescue and transplantation as a treatment and/or cure for inherited retinal degenerations such as retinitis pigmentosa and allied disorders, Usher syndrome, and macular degeneration. Specific areas of interest are detailed in a recent workshop report. A copy will be provided upon request.

Applications will be reviewed by a special panel of consultants to the RP Foundation. They will be judged both on scientific merit and direct relevance. Awards will be made in the range of \$50,000 to \$80,000 per year for up to 3 years.

Applicants should submit a letter of intent. In it, briefly summarize the proposed research and background of the laboratory, and give an approximate budget. A curriculum vitae of the principal investigator(s) should be included. Following a preliminary review, detailed proposals will be requested from a limited number of applicants. Deadline for letters of intent is 1 June 1992, for applications 11 September 1992. Awards will begin 1 January 1993.

Address letters of intent to: **Jeanette S. Felix, Ph.D., Director of Science, RP Foundation Fighting Blindness, 1401 Mt. Royal Avenue, Baltimore, MD 21217.** Telephone: 410-225-9400.

RESEARCH INQUIRIES INVITED

The Smokeless Tobacco Research Council, Inc., invites inquiries regarding grant applications.

The council sponsors independent research into questions of smokeless tobacco and health. Research support is through a program of grants-in-aid.

Grant applications are evaluated by the Scientific Advisory Board to the council and will be judged solely on the basis of scientific merit and relevance.

Deadlines for submission of grant applications are 31 December for 1 July funding and 30 June for 1 January funding. Address inquiries or requests for applications to: **The Smokeless Tobacco Research Council, Inc., 420 Lexington Avenue, New York, NY 10170.** Telephone: 212-697-3485.

COURSES AND TRAINING

SOMATIC CELL AND MOLECULAR GENETICS WORKSHOP, 12 to 26 July 1992. Intensive, 2-week, "hands-on" introduction to the methodology and concepts of current tissue culture and molecular biology procedures. Also provides basic techniques needed for initiating genome mapping studies. This course is designed for established scientists who need to exploit these techniques for their continuing research programs. Registration fee: \$200. Partial per diem provided. Enrollment limited to 16 students. Applications accepted until 30 April 1992. Applicants should submit a letter describing how the workshop will assist their current research, along with curriculum vitae which lists publications (no abstracts) for the past 5 years only, to: **Peggy J. Woodson, Somatic Cell and Molecular Genetics Workshop, Eleanor Roosevelt Institute, 1899 Gaylord Street, Denver, CO 80206,** telephone: 303-333-4515. *The Eleanor Roosevelt Institute is an Equal Opportunity/Affirmative Action Institution and invites and encourages applications from women and minorities. Open to U.S. citizens and permanent residents only.*

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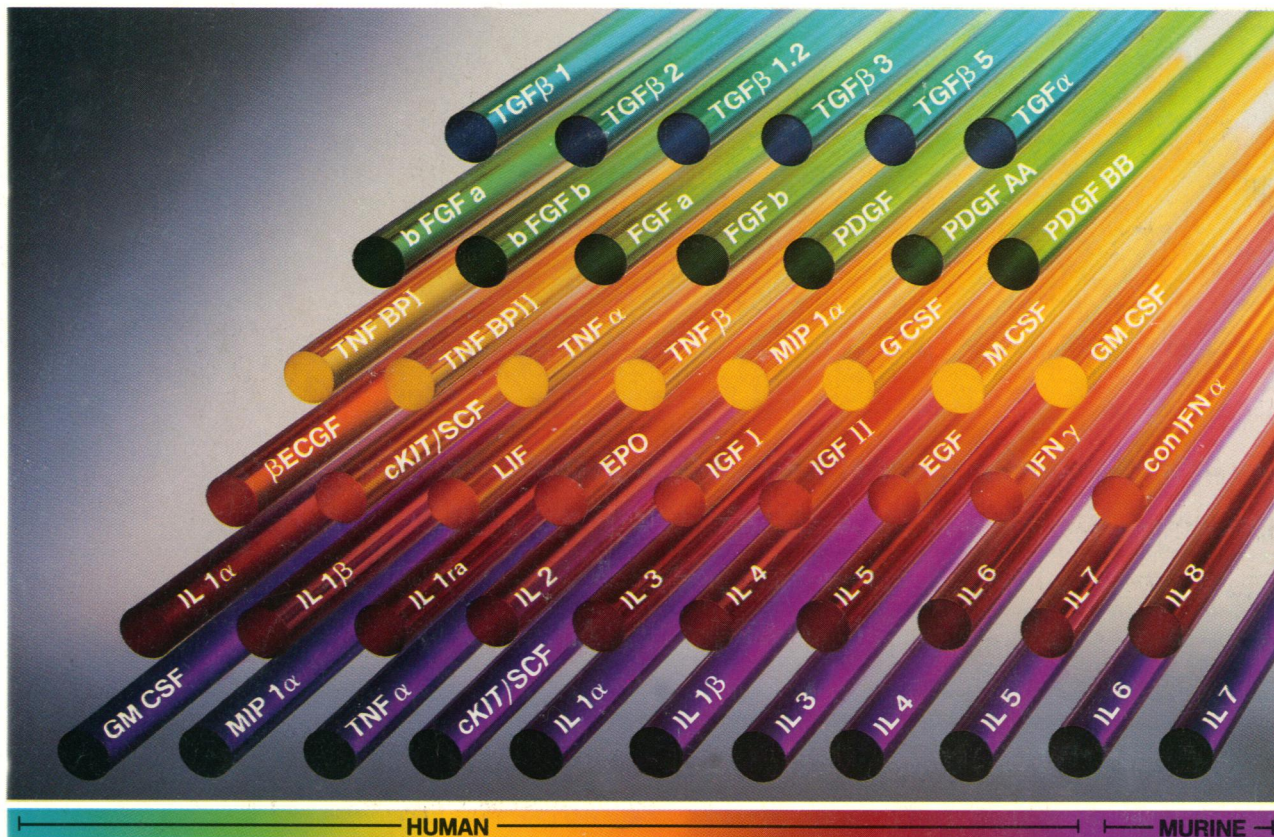


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