

Custom Hybridoma Cell Line Development

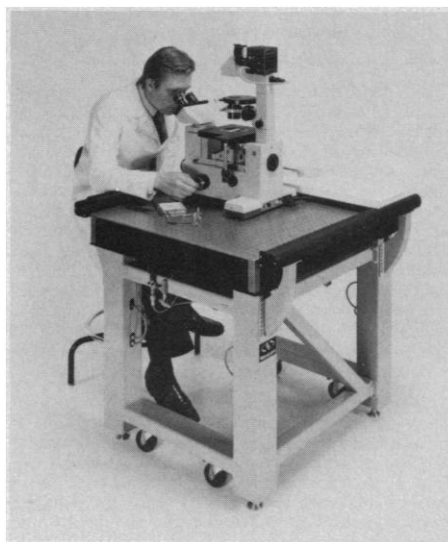
BAbCO offers a complete hybridoma cell line development program to generate monoclonal antibodies against peptides, proteins, organic haptens, and other molecules. The program's four individual phases—immunization, fusion, screening, and cloning—are specifically developed and customized to the user's project. Custom antigen preparation, purification, conjugation, and characterizations are also available. BAbCO. Circle 516.

Biological Abstracts on Compact Disc

Biological Abstracts on Compact Disc will be issued quarterly, starting in March 1990. It will enable users to search by title, author, corporate source, source journal, abbreviated journal title, language of article, abstract, descriptors, concept codes, biosystematic codes, and more. The product is a joint venture of BIOSIS, the world's leading abstracting and indexing service for the life sciences, and SilverPlatter Information, the leading publisher of databases on compact disc. BIOSIS. Circle 518.

Workstations Protect Instruments from Vibrations

The VW series vibration-isolated workstations provide a high level of performance for enhanced resolution and repeatability in critical electrophysiology, microinjection, and cell manipulation procedures. The isolation performance of these workstations increases the quality of microscopic images, enables more precise micromanipulation of cells, and provides a stable platform for long-term experimentation. In addition to isolation from vertical motion, VW series workstations provide unsurpassed isolation from horizontal floor motion, an especially



important consideration for labs in multistoried buildings. Six compact work surfaces from 30 to 36 inches to 36 by 60 inches permit the selection of a workstation large enough for anticipated projects, yet small enough to fit in crowded labs. The five work surfaces offered include stainless-steel surfaces, with or without mounting holes, and plastic laminates. Newport Bio-Instruments. Circle 514.

Mutagenesis System

The Altered Sites mutagenesis system combines a unique vector with a procedure for positive antibiotic selection of site-directed mutations. Mutations are introduced by annealing a mismatched oligonucleotide to the single-stranded target DNA. A second mutagenic oligonucleotide is annealed simultaneously to confer antibiotic resistance to the mutant DNA strand. The procedure is simple and rapid to perform, yields 70 to 90% mutants, and can be used to generate multiple mutations simultaneously. Promega. Circle 521.

Nucleotide and Protein Analysis Software

GenEra is a molecular biology and protein chemistry software package that contains the most commonly used routines for analysis of nucleotide and protein sequences. GenEra includes routines for sequence editing, composition analysis, fast sequence comparison and alignment, DNA restriction map analysis, open reading frame analysis and frame translation, proteolytic digest mapping, protein hydropathy, and hydrophobic moment and secondary structure analysis. GenEra is supplied with the

National Biomedical Research Foundation Protein Identification Resource Database and contains database access routines for this database as well as for GenBank. The program runs on IBM PC/XT/AT/PS2 or compatible computers. Savant Associates. Circle 526.

Chillers Expedite Cooling of Instrumentation

A new family of Isotemp Chillers provides a dependable source of clean, temperature-controlled fluid for open tanks and instrumentation with closed-loop cooling systems. The new appliances help eliminate cooling problems in lasers, electron microscopes, vacuum diffusion pumps, gas chromatograph-mass spectrometers, distillation condensers, and a variety of other systems. The Isotemp Chillers feature set-and-forget dependability, quiet pumping, and temperature control to 1.0°C. Fisher Scientific. Circle 532.

Literature

Environmental Apparatus is a catalog of laboratory environmental glassware, including chromatographic columns, extractors, volumetric and separatory flasks, gas collection tubes, and Greenberg-Smith impingers. Chemglass. Circle 543.

Video Microscopy is a 12-page, four-color brochure that describes how microscopic images can be enhanced by video technology. It includes typical systems diagrams, accessories, and examples of biomedical and materials science applications. Carl Zeiss. Circle 544.

Sigma Immunochemicals 1990 Catalog lists more than 1100 immunochemicals and related products. More than 100 new products are offered including antisera to drugs with matched enzyme, fluorochrome, or radiolabeled ligands for use in immunoassays. Sigma Immunochemicals. Circle 545.

Safety Products and Programs is a 16-page brochure on products for the neutralization and control of acids, solvents, caustics, and mercury spills. It also provides information on employee safety training materials and software programs for hazard communication. J. T. Baker. Circle 546.

The *American Type Culture Collection's Quarterly Newsletter* is a free publication that provides listings of newly available algae, bacteria, cell lines, fungi, recombinant genetic materials, protozoa, viruses, and yeasts from the organization's extensive collection of biological cultures. American Type Culture Collection. Circle 549.

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.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year, and is mailed on issue date. Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

LINE CLASSIFIED ADVERTISEMENTS

DEADLINE: Thursday, 10 a.m., 2 weeks prior to issue date. Advertising is accepted only in writing.

POLICIES: All classified ads will be edited and typeset according to **SCIENCE** style guidelines. NO ABBREVIATIONS. Any deadline for applications stated in ad must be at least 2 weeks after date of issue in which ad appears.

CLASSIFICATION: **SCIENCE** publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Fellowships, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired; however, **SCIENCE** reserves the right to decline classification requests which it believes may be misleading to readers.

RATE: \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. No cash discount. Prepayment required for all foreign ads. Purchase orders required for all other advertising.

To **ESTIMATE** ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

BOXES AND LOGOS: Any 1-column line classified ad can be boxed and/or published with logo. No extra production charge for use of box or logo. For boxed ads, one line equals 48 characters and spaces; two additional lines will be added to cost of ad to allow for top and bottom box rules. Logos are billed according to number of lines needed to accommodate logo.

SITUATIONS WANTED ADS: As a service to AAAS members in good standing, **SCIENCE** offers free placement of Situations Wanted ads for individuals seeking full-time or part-time employment. A blind box may be used. Ads must be submitted in writing with text of 20 words or less, not including address or box number, and are limited to two insertions per member in each calendar year. Please enclose **SCIENCE** mailing label including AAAS membership number when submitting ad.

CANCELLATIONS: Deadline for cancellations is 10 a.m. Tuesday, 10 days prior to issue date.

Address ad copy or requests for information to:

SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005
Telephone: 202-326-5555
FAX: 202-682-0816

MARKETPLACE AND DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and other information about fractional display ads (1/6 page and larger) and all **Marketplace** listings of available products and services, contact:

Scherago Associates, Inc.
1515 Broadway
New York, NY 10036
Telephone: 212-730-1050
FAX: 212-382-3725

RESPONSES TO EMPLOYMENT ADS

Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications.

SCIENCE encourages applicants for positions to investigate employment laws, nondiscrimination policies, visa requirements, and cultural differences in the country advertising for employees.

To reply to a blind box ad, address correspondence to:

Box (give number)
SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005

POSITIONS OPEN

ANATOMIST. Faculty position available to teach clinically oriented gross anatomy and histology or neuroanatomy. Primary responsibilities: not more than 25% of time teaching the above disciplines to medical students and at least 75% of time for research. Salary and academic rank open and commensurate with training, teaching experience, and grant track record. Please send curriculum vitae and publications list, detailing teaching experience, research interests, grant support information, and names of three references to: **Dr. Arnold L. Nagler, Associate Dean, Basic Sciences, New York College of Osteopathic Medicine, Old Westbury, NY 11568.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR BIOLOGY

Assistant professor biology position at Indiana University—Purdue University at Indianapolis (IUPUI) is available in Purdue School of Science at IUPUI Columbus campus. Ph.D., a record of scholarly activity, evidence of an active program of current research, and 3 years of university teaching experience are required. Special consideration will be given to candidates whose research would benefit from access to newly created two-dimensional protein electrophoretic facilities. Salary commensurate with experience. Review of completed files will begin 16 March 1990. Send résumé and names and addresses of three references to: **Dr. Paul Bippin, IUPUI Columbus, 4601 Central Avenue, Columbus, IN 47203.** *An Affirmative Action/Equal Opportunity Employer.*

CORNELL UNIVERSITY COLLEGE OF VETERINARY MEDICINE DEPARTMENT OF PATHOLOGY

The Department of Pathology is seeking applications for a tenure-track position, preferably at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR.** We are looking for a person who will develop a high-quality, independent research program applying morphological, biochemical, and molecular approaches to the study of specific disease processes. The position also entails a strong commitment to graduate education in cellular and molecular pathology and shared responsibility for D.V.M. and resident teaching. Successful candidates will have both D.V.M. and Ph.D. degrees (or equivalent degrees). Board certification by the ACVP is desirable but not essential. Applications should include curriculum vitae, description of career goals and future research plans, copies of the candidate's most significant publications, and the names of at least three individuals willing to write letters of recommendation. Application materials should be sent by 15 March 1990 to: **Dr. Donald Schlafer, Chairman, Pathology Search Committee, Room E205, Schurman Hall, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401.**

Cornell University is an Equal Opportunity/Affirmative Action Employer/Educator.

The Department of Neurology at the University of Minnesota (UM) Medical School seeks an M.D. and Ph.D. neurologist for a tenure-track **ASSISTANT PROFESSOR** position. Candidates must have an M.D. and Ph.D. degree, completed postdoctoral studies with promise of establishing an independent research program, and be Board-eligible in neurology. Candidates should have clinical interests and experience in familial and hereditary cerebellar ataxias and related disorders with the intent to establish and consolidate a clinical program in the ataxias, coordinating efforts with ongoing programs. Research interests and experience should include molecular neurobiology with emphasis on the molecular mechanisms of neurodegenerative diseases, including both hereditary (hereditary ataxias) and sporadic (amyotrophic lateral sclerosis) diseases. A major focus of the work will be on the role of receptor abnormalities in the genesis of degenerative diseases. This assistant professor will serve as an attending physician on the neurology service and will participate in the teaching of residents and undergraduate and graduate students. Applicants should send curriculum vitae by 31 March 1990 to: **Richard W. Price, M.D., Professor and Head, Department of Neurology, Box 295, UMHC, Harvard Street at East River Road, Minneapolis, MN 55455.**

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

POSITIONS OPEN

The Department of Neurology at the University of Minnesota (UM) Medical School seeks an M.D. and Ph.D. neurologist for a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position. This assistant/associate professor will serve as an attending physician on the neurology service and will participate in the teaching of residents and undergraduate, and graduate students. Candidates should have clinical interests and experience in developmental neurological disorders with genetic basis. Research interests and experience should include regulation of gene expression in brain development and brain function and transcriptional regulation of catecholamine synthesizing enzyme genes and identifying cell type-specific genes in development using cerebellar mutants in the mouse. This work will relate to the regulation of differentiating neuronal gene expression and pathological alterations in development using molecular techniques to assess mouse models of developmental abnormality. Candidates must have an M.D. and Ph.D. degree, completed postdoctoral studies, demonstrated ability to carry out independent research, and be Board-eligible in neurology. Applicants should send curriculum vitae by 31 March 1990 to: **Richard W. Price, M.D., Professor and Head, Department of Neurology, Box 295, UMHC, Harvard Street at East River Road, Minneapolis, MN 55455.**

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

The Department of Neurology at the University of Minnesota (UM) Medical School seeks an M.D. neurologist for a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position. This assistant/associate professor will serve as an attending physician on the neurology service and will participate in the teaching of residents and undergraduate and graduate students. Candidates should have clinical interests and experience in cerebrovascular disease, including both hemorrhagic and ischemic disease. Research interests and experience should include regulation of cerebral blood flow and metabolism in physiological and pathological states, including the mechanisms of alterations in blood flow and metabolism in response to injury and the role of these mechanisms in protecting or extending brain damage, and the role of the particular neuronal populations of both endothelial and glial cells in regulation of regional blood flow and response to injury. He or she should have experience and facility with contemporary physiology techniques, including quantitative autoradiography. The candidate must have an M.D., completed postdoctoral studies, demonstrated ability to carry out independent research, and be Board-eligible in neurology. Applicants should send curriculum vitae by 31 March 1990 to: **Richard W. Price, M.D., Professor and Head, Department of Neurology, Box 295, UMHC, Harvard Street at East River Road, Minneapolis, MN 55455.**

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

ADJUNCT INSTRUCTOR OR ADJUNCT ASSISTANT PROFESSOR. (Rank commensurate with experience.) Function as director, Division of Endocrinology, Metabolism Laboratory, Ph.D. in biochemistry or related field and 2 years of experience in lipoprotein metabolism and diabetes preferred. Send curriculum vitae to: **A. Khachadurian, M.D., Department of Medicine, University of Medicine and Dentistry of New Jersey (UMDNJ)—Robert Wood Johnson Medical School, CN-19, New Brunswick, NJ 08903-0019.** *The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V.*

Broward Community College is accepting applications for **INSTRUCTORS** in the areas of biology and chemistry. Minimum requirements are listed below:

BIOLOGY INSTRUCTOR. Master's degree with 18 graduate semester hours in biology with concentration in microbiology. Major teaching responsibilities include microbiology and introductory biology, lectures, and laboratories.

CHEMISTRY INSTRUCTOR. Master's degree with 18 graduate semester hours in chemistry. Major teaching responsibilities include introductory inorganic and organic chemistry, lectures, and laboratories.

Résûmes must be received by 8 March 1990 at: **Broward Community College, Human Resources Department, 225 East Las Olas Boulevard, Ft. Lauderdale, FL 33301.**

An Equal Access/Equal Opportunity Institution.

POSITIONS OPEN

ASSISTANT PROFESSOR. Ph.D. or equivalent in medicine/endocrinology. Develop and introduce a molecular biology approach into an existing multidisciplinary research on hormones and cancer currently supported by an NIH-funded program project grant. Independent research preferably, but not necessarily, within the scope of the PPG encouraged. Available April of 1990. Approximately \$40,000 per annum. Contact: Dr. A. Manni, Pennsylvania State University College of Medicine, P.O. Box 850, Hershey, PA 17033. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR IMMUNOLOGIST

A tenure-track position is open immediately in the Department of Microbiology, University of Pennsylvania. Candidates with interests in molecular immunology are preferred, but outstanding applicants in related areas will be considered. The candidate will be expected to establish an independent extramurally funded research program, in addition to participating in the educational duties of the School of Medicine and the Immunology Graduate Group. Applicant should submit a summary of his or her research interests, curriculum vitae, and the names of three referees to: Dr. Yvonne Paterson, Chairperson, Immunology Search Committee, Department of Microbiology, 209 Johnson Pavilion, Philadelphia, PA 19104-6076. Application deadline: 30 May 1990. An Affirmative Action/Equal Opportunity Employer.

ASSOCIATE PROFESSOR. Albert Einstein College of Medicine/Montefiore Medical Center, Department of Neurosurgery and Cancer Center at Albert Einstein College of Medicine. Associate professor level research scientist position with molecular biology/cell biology background to lead a group studying the molecular biology of malignant brain tumors. Experience: Ph.D. with experience and publications in molecular biology/cell biology. Research will be based at Montefiore Medical Center. Primary appointment in neurosurgery with potential second appointment in appropriate basic science department at Albert Einstein College of Medicine. Please send curriculum vitae and the names and addresses of three references to: Paul L. Kornblith, M.D., Professor and Chairman, Department of Neurosurgery, Albert Einstein College of Medicine/Montefiore Medical Center, 111 East 210th Street, Bronx, NY 10467.

BIOCHEMIST. Faculty position available to teach medical biochemistry and work independently and/or collaboratively with other research/teaching faculty. Primary responsibilities: not more than 25% of time teaching medical students and at least 75% of time for research. Salary and academic rank open and commensurate with training, teaching experience, and grant track record. Please send curriculum vitae detailing teaching experience, research interests, and grant support information and names of three references to: Dr. Arnold L. Nagler, Associate Dean, Basic Sciences, New York College of Osteopathic Medicine, Old Westbury, NY 11568. Affirmative Action/Equal Opportunity Employer.

BIOLOGIST. Temporary, full-time position available at the ASSISTANT PROFESSOR rank beginning August of 1990. Master's degree required. Ph.D. preferred. Minorities and women are especially encouraged to apply. The primary responsibilities include teaching non-major service courses and anatomy and physiology for allied health students. Send letter of application, curriculum vitae, transcripts, a statement of interests, and three letters of reference to: Chairman, Search Committee, Department of Biology, Slippery Rock University, Slippery Rock, PA 16057. To ensure consideration, application materials should be received by 28 March 1990. Slippery Rock University is an Affirmative Action/Equal Opportunity Employer.

BOTANIST. Tenure-track ASSISTANT PROFESSORSHIP available in the Department of Biology and Microbiology at South Dakota University. Ph.D. and 1 year of postdoctoral experience in botanical science required; background in photosynthesis or ecophysiology preferred. Contact: Dr. Gary E. Larson, Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007-0595. Telephone: 605-688-4552. Applications accepted until 30 March 1990 or until position is filled. Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTRY and PHYSIOLOGY CAREER OPPORTUNITIES

CAS, the world leader in chemical information services, has several openings for professionals who want to analyze and document chemical literature. While editorial experience is not required, a good command of the English language is needed. These are full-time career opportunities located in Columbus, Ohio. Our current needs are in these areas:

ANALYTICAL BIOCHEMISTRY — MS or PhD and reading knowledge of Japanese, French, German, or Russian is required.

PHYSIOLOGY — MS or PhD and reading knowledge of Japanese or Slavic languages is required.

Located in a growing and dynamic metropolitan area, Columbus, Ohio has excellent housing, cultural, recreational and transportation facilities. In addition to a competitive salary, CAS offers a professional working environment, flexible working hours, generous vacation, excellent insurance programs, relocation reimbursement, and employer-paid retirement. To be considered, submit your resume to:



CHEMICAL ABSTRACTS SERVICE
Employment Department
P.O. Box 3012
Columbus, Ohio 43210

An Equal Opportunity Employer M/F/H/V

Join a biotechnology group conducting research on peptide hormones.

Cell Biologist

The BOC GROUP, an innovative world leader in health care products, has a challenging career opportunity at our state-of-the-art Technical Center located in Murray Hill, New Jersey.

Applicants are invited to join an on-going program to identify and develop acute and critical care pharmaceutical agents. The successful candidate will be responsible for establishing mammalian cell lines and characterizing cellular and molecular responses in close collaboration with molecular biologists and protein biochemists.

The ideal candidate should have a Ph.D. with 2+ years of postdoctoral/industrial experience or a MS with 5+ years of experience. This position requires an in-depth knowledge of cell culture techniques and cell culture based assays. Additional experience in protein characterization would be a plus.

BOC offers a challenging and stimulating scientific research career environment with the opportunity to interact with scientists from many disciplines. We provide an excellent compensation and benefits package. For prompt, confidential consideration, please forward your resume with salary requirements to: Human Resources, A.G., The BOC GROUP, 100 Mountain Avenue, Murray Hill, NJ 07974. We are an equal opportunity employer M/F/H/V.

THE BOC GROUP
Technical Center

POSITIONS OPEN

BIOCHEMIST/CELL BIOLOGIST. Tenure-track position, pending funding, fall of 1990. Ph.D. required with primary interest in teaching and desire to engage in research with students. Duties include teaching biochemistry, cell biology, and lower-division biology and chemistry courses. The University of South Carolina at Spartanburg (USCS) is committed to excellence in teaching. Send letter of application, curriculum vitae, undergraduate and graduate transcripts, and three letters of recommendation to: **Biochemistry Search Committee, Dean's Office, Box "B," School of Humanities and Sciences, 800 University Way, USCS, Spartanburg, SC 29303.** Application deadline: 15 March 1990; late applications considered until position is filled. *Women and minorities encouraged to apply. Affirmative Action/Equal Opportunity Employer.*

BIOLOGY. Three **FACULTY POSITIONS.** Applications are invited for two assistant professors and one instructor (or assistant professor) beginning August of 1990 (Ph.D. required for assistant professor positions): (i) molecular or cell biologist/microbiologist with expertise to teach related courses; (ii) physiologist/anatomist with broad general background; (iii) general biologist to teach general biology courses. Ability and willingness to teach freshman biology is required of all candidates. Xavier University is a small, predominantly African-American, Catholic, liberal arts institution. Application deadline: 15 March 1990 or until filled. Send résumé and three letters of recommendation to: **Kenneth G. Boutte, Chairman, Search Committee, Biology Department, Xavier University, New Orleans, LA 70125.**

FIELD BIOLOGIST/GEOCHEMIST

The U.S. Geological Survey in Menlo Park, California, seeks a biologist or geochemist for studies employing biosentinel species to characterize and compare trace contaminant distribution, bioavailability, and effects among freshwater rivers and streams. Familiarity with multidisciplinary studies of chemistry, bioaccumulation, and effects of either trace element or trace organic contaminants is important; as is interest in field ecology or fisheries biology and ability to integrate fundamental biological and ecological principles into interpretation of field studies. Candidates should have a Ph.D. in related field and capacity for interdisciplinary research. This is a 2-year term appointment with the possibility of conversion to a permanent position. Please submit by 10 April 1990 curriculum vitae, three references, and a statement of interests to: **Samuel N. Luoma, Mail Stop 465, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, CA 94025.** U.S. citizenship required. *U.S. Geological Survey is an Equal Opportunity/Affirmative Action Employer.*

COORDINATOR OF PROTEIN AND DNA CHEMISTRY FACILITY. Pennsylvania State University Biotechnology Institute seeks a research associate to manage its Protein and DNA Chemistry Facility. The facility is equipped for the automated hydrolysis, derivatization, sequencing and on-line analysis of peptides and proteins, and automated oligonucleotide synthesis and purification. Applicants should hold a Ph.D. or have extensive experience in peptide and protein sequencing and purification. The successful applicant will be expected to oversee the operation and maintenance of the facility and to provide instruction to students and faculty on applicable methods. Send curriculum vitae and three letters of recommendation to: **Dr. Michael Parker, Assistant Director, Biotechnology Institute, 519 Wartik Laboratory, The Pennsylvania State University, University Park, PA 16802.** Position is renewable on annual basis. Review of applications will begin 21 February 1990 and continue until the position is filled. *An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

DEAN, COLLEGE OF SCIENCE AND ENGINEERING

UNIVERSITY OF MINNESOTA, DULUTH

Applications and nominations are invited for the position of the dean of the College of Science and Engineering (CSE). For information, write: **J. Gallian, CSE Dean Search Committee, 420C Darland Administration Building, University of Minnesota-Duluth, Duluth, MN 55812.** Telephone: 218-726-6349. Deadline is 10 April 1990.

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

POSITIONS OPEN

The Department of Neurology, University of California, Irvine (UCI), seeks a physician for the Shepard Endowed **CHAIR** in Neurological Studies. Candidates should have internationally recognized research in epilepsy and must be eligible for a tenured faculty appointment. The chairholder will be expected to conduct research in the area of epilepsy and to participate in the development of an Epilepsy Research Program dedicated to bridging the clinical and basic neurosciences. Send curriculum vitae and names of three referees to: **Dr. Ira T. Lott, Chair, Shepard Endowed Chair Search, UCI Medical Center, Building 27, 101 City Drive South, Orange, CA 92668.** To insure consideration, apply before 15 March 1990. Late applications will be considered. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

CLINICAL PATHOLOGIST to direct bone marrow processing and tissue typing laboratory, **ASSISTANT PROFESSOR TO PROFESSOR.** Must have or be eligible for Board certification and be experienced in immunology and hematopoietic diseases. Responsibilities include administration, service, teaching, and research. Send curriculum vitae and three letters of recommendation by 1 July 1990 to: **David T. Purtilo, M.D., Chairman, Pathology and Microbiology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-3135.** *An Affirmative Action/Equal Opportunity Employer.*

COASTAL SEDIMENTARY PROCESSES. Position at the **ASSISTANT PROFESSOR** level as a joint appointment between the Louisiana Universities Marine Consortium (LUMCON) and University of Southwestern Louisiana (USL). The position is based at the Louisiana Universities Marine Center on the coast at Cocodrie. Extensive interaction is expected with the U.S. Fish and Wildlife Service's National Coastal Wetlands Research Center under construction at USL. Duties include (i) scientific research on aspects of fine sediment dynamics in coastal wetlands and the effects of currents, waves, and subsidence; (ii) publication of research results in refereed journals; and (iii) teaching of graduate and undergraduate courses offered by LUMCON, USL, or other member universities. Requirements: a Ph.D. in an appropriate branch of science; at least 3 years of experience in academic research concerning sediment processes in coastal wetlands, including refereed publications; experience in university-level teaching.

Send letter of application, statement of research interests, curriculum vitae, and names of three references before 15 March 1990 to: **Dr. Donald F. Boesch, Louisiana Universities Marine Consortium, Chauvin, LA 70344.**

DIRECTOR, DIVISION OF VIROLOGY

The Food and Drug Administration is recruiting for the director, Division of Virology, in the Center for Biologics Evaluation and Research located in Bethesda, Maryland. The position is in the Senior Executive Service with a salary range of \$71,200 to \$79,200. The director is responsible for directing a staff of 55 in assuring the safety and effectiveness of biological products used in the prevention, treatment, and mitigation of viral and rickettsial diseases. Applicants must have: executive level experience in managing broad scientific research or regulatory programs; demonstrated strong leadership and managerial abilities in directing complex scientific programs; ability to deal effectively with high level governmental officials, the scientific and academic communities, medical and health-related organizations, representatives of the regulated industry, and others; and the ability to implement Equal Employment Opportunity programs. Applicants should have an M.D. degree with Board certification or a Ph.D. in a related scientific discipline with postdoctoral training and a national/international reputation in viral and rickettsial biological products or related disciplines.

If you are interested and want to be considered, send curriculum vitae to: **Jim Keady, Division of Human Resources Management, Food and Drug Administration, Parklawn Building, Room 4B-09, 5600 Fishers Lane, Rockville, MD 20857.**

If you need more information, call Jim, collect, telephone: 301-443-1755.

This position can also be filled by current commissioned officers of the U.S. Public Health Service, or by former officers willing to rejoin the corps. Applications will be accepted until 31 March 1990.

An Equal Opportunity Employer.

POSITIONS OPEN

DIRECTOR, DIVISION OF LABORATORY ANIMAL RESOURCES. The State University of New York (SUNY) Health Science Center at Brooklyn is searching for a director to assume full responsibility for its laboratory animal care program.

The director of laboratory animal resources is responsible for policy and oversight functions for all animal research activities (species range from traditional laboratory rodents to a major primate facility and regular use of various farm animals) carried out at the Health Science Center. This includes operation and maintenance of all the animal research facilities, review of research protocols, compliance with federal and state animal care regulations, and maintenance of AAALAC accreditation. In addition, the Health Science Center encourages the director to engage in collaborative research efforts with the faculty.

Candidate must possess a D.V.M. degree with training and at least 5 years of experience in laboratory animal medicine. ACLAM Board eligibility or certification will be given preference. Salary and faculty rank will be commensurate with the applicant's experience and qualifications. Candidates should submit their curriculum vitae and the names of three references to: **Mr. John M. Allen, Assistant Provost for Scientific Affairs, SUNY Health Science Center at Brooklyn, Box 97, 450 Clarkson Avenue, Brooklyn, NY 11203.** *Equal Opportunity/Affirmative Action Employer. DMC#CR0287.*

PROGRAM DIRECTOR IN BIOLOGY

The Department of Biology at Emory University seeks a person to head a program of new undergraduate initiatives funded by the Howard Hughes Medical Institute, to begin on or before 1 September 1990. The initiatives include faculty and curriculum development, a summer program for entering minority students interested in biology, and new advanced laboratory courses. The candidate should have a Ph.D., a strong background in biology, knowledge of current research and practice in undergraduate science education, and experience in instruction and faculty development. The position is a 12-month appointment for a period of at least 5 years; salary is commensurate with qualifications and experience. Send curriculum vitae, a statement of your interests and experience in teaching and science education, and have three letters of recommendation sent to: **Dr. Gray F. Crouse, Chairman, Department of Biology, Emory University, Atlanta, GA 30322.** Review of applications will begin immediately, and the position will remain open until filled. *Emory is an Equal Opportunity/Affirmative Action Employer.*

TENURE-TRACK FACULTY POSITION IN TOXICOLOGY UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for appointment as **ASSISTANT PROFESSOR** of toxicology in the Department of Biomedical and Environmental Health Sciences, School of Public Health, University of California at Berkeley.

Responsibilities include acting as principal instructor of a course in biological monitoring of chemical exposure, supervision of graduate student research in toxicology, and the development of an independent research program. Preference will be given to candidates whose research focuses on chemicals of wide-scale environmental interest such as pesticides or solvents. For example, the development and application of new molecular techniques to monitor exposure to such chemicals or to detect subtle biological damage would be an ideal research area. Focus on applying such procedures to human populations or in human cell culture systems would also be an advantage. The ability to interact with other faculty interested in human dosimetry and mechanisms of toxicity is also desirable.

Applicants should possess a Ph.D. or M.D. degree, have a minimum of 2 years of postdoctoral experience, and show evidence of creativity in research. Appointment will be at the assistant professor level and salary is dependent on experience but will be in the \$32,400 to \$40,500 range (9-month appointment).

Submit curriculum vitae, two representative publications, and names of three references by closing date of 31 May 1990 to:

**Dr. Martyn T. Smith
School of Public Health
318 Warren Hall
University of California
Berkeley, CA 94720**

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

Biology

S ENIOR SCIENTIST

MERCK SHARP & DOHME, Fortune Magazine's most admired company for three years in a row and an industry leader in biotechnology, has an exceptional opportunity available for a Senior Scientist.

As a member of the Biology Quality Control Technological Services Department, the successful candidate will be responsible for developing bioanalytical methodologies for process control and product release of biotechnology products, including vaccine antigens and therapeutic polypeptides.

A PhD in Biochemistry, Microbiology or Molecular Biology is required with 4-6 years of relevant experience including protein chemistry, immunochemistry, virology, and microbiology. Knowledge of HPLC, CZE, MS, and NMR theory and application is preferred; in addition to familiarity with standard chromatographic, electrophoretic and immunological methods of analysis.

MERCK SHARP & DOHME's commitment to excellence means we recognize and reward outstanding performance. We offer a very competitive starting salary, a full range of benefits, and an opportunity to advance with one of the world's most highly respected corporations. Please send your resume with salary history/ requirements to: **Karen J. Hallee, Merck Sharp & Dohme, West Point, PA 19486.** Equal Opportunity Employer M/F/H/V.

MSD
MERCK
SHARP &
DOHME

ONTARIO CANCER TREATMENT AND RESEARCH FOUNDATION:
NORTHEASTERN ONTARIO REGIONAL CANCER CENTRE
SUDBURY, ONTARIO

CANCER RESEARCH SCIENTIST

Applicants are invited for a staff career scientist position as a member of an experimental oncology group with a focus on applied clinical research. The successful candidate should have demonstrated excellence in carrying out research at the biochemical and molecular level as a member of a collaborative research group. Considerable experience at the post doctoral level, and a demonstrated ability to manage a research laboratory is required. After a start-up period, on-going support for research will be from competitive granting agencies. Academic appointment will be at the University of Ottawa, and Laurentian University, Sudbury.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada, although others are encouraged to apply.

Closing date for this competition is March 9/90. Applicants should send resume and names of three referees to:

Dr. Robert Corringham, M.B.
Director
Northeastern Ontario Oncology Program
41 Ramsey Lake Road
Sudbury, Ontario
P3E 5J1



Bioanalytical Chemist

SmithKline Beecham, a worldwide leader in pharmaceutical research, is seeking a bioanalytical chemist to join our growing Drug Metabolism department. The scientist would be part of a research team responsible for the development and application of analytical procedures to measure concentrations of new drug candidates in biological fluids.

A B.S./M.S. (or equivalent experience) is required with 1-5 years of experience in the development and/or application of analytical methods (HPLC, GC or RIA). SmithKline Beecham offers an interdisciplinary approach to research and a highly interactive environment, making excellent interpersonal skills a valuable asset.

Located in a state-of-the-art facility in suburban Philadelphia near Valley Forge, we can offer you a challenging, stimulating environment in which to grow and excel. For confidential consideration, please forward your resume to Liz McKendry, L121, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

MEDICINAL CHEMIST

National Institutes of Health

The Laboratory of Medicinal Chemistry, National Institute of Diabetes, Digestive and Kidney Diseases seeks an outstanding candidate with a degree in Pharmacy and a Ph.D. degree in Synthetic Organic Chemistry or Medicinal Chemistry together with at least 2 years postdoctoral training. The applicant should also have research experience in the chemistry of opioids, arylcyclohexylamines and other drugs of abuse, radiochemical synthesis and modern synthetic organic techniques. Additionally, the applicant should be familiar with radioreceptor binding assays and their interpretation as well as *in-vivo* and *in-vitro* pharmacology and should have a substantial record of publications of original work in these areas. Starting salary \$37,000 or may be negotiable commensurate with qualifications and experience. Interested candidates should submit curriculum vitae, several reprints, summary of research interests and names of three references to:

Kenner C. Rice, Ph.D.
National Institutes of Health
Building 8, Room 207
9000 Rockville Pike
Bethesda, Maryland 20892



NIH is an Equal Opportunity Employer

POSITIONS OPEN

CANCER CENTER DIRECTOR. The University of Kansas Medical Center is seeking a director to provide leadership to its developing and continuing cancer projects and programs. The state legislature has appropriated funds for core support of the center, and research and training programs are in place which are funded by both federal and private sources.

Candidates for the position must have a doctoral degree relevant to the health sciences. It is expected that the candidate will have a significant scholarly record in cancer research and appropriate administrative experience.

Faculty rank will be commensurate with the academic qualifications of the candidate. Space, facilities, and financial resources are available to assure a program of excellence. Salary is competitive and will be consistent with the background and experience of the candidate. Applicants should send a letter of interest and curriculum vitae to: **Dr. Stephen Russell, Wilkinson Cancer Research Laboratory, 1008 Wahl Hall West, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, KS 66103.**

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

ELECTRON MICROSCOPY TECHNICIAN

Challenging position in structural biology laboratory to assist with the managing of transmission electron microscope facility, with supervising and training of users, and in carrying out research projects. B.A. or B.S. preferred. Apply to: **Dr. David J. DeRosier, Rosenstiel Center, Brandeis University, P.O. Box 9110, Waltham, MA 02254-9110. An Equal Opportunity/Affirmative Action Employer.**

EXTENSION GROUNDWATER QUALITY SPECIALIST. The Department of Land, Air, and Water Resources, University of California, Davis, seeks qualified candidates for an academic career-track position, cooperative extension assistant/associate groundwater quality specialist. Position is to develop and implement strategies for reducing and preventing groundwater contamination through extension teaching and applied research programs. Geographical emphasis will be placed on the San Joaquin Valley and the central coastal valleys, although the assignment is statewide. Position will be housed at the Kearney Agricultural Center, located southeast of Fresno. Also, provide educational leadership and technical information support for county advisers and assist them in identifying and defining the needs of underrepresented groups. Ph.D. and background in groundwater hydrology, chemistry, soil physics, or related field is required. Applicants should submit a résumé, transcripts, research and teaching statements with background in each, copies of publications, and names and addresses of at least three references to: **Blaine Hanson, Groundwater Quality Specialist Search Committee Chair, Department of Land, Air, and Water Resources, University of California, Davis, CA 95616, by 1 April 1990. The University of California is an Affirmative Action/Equal Opportunity Employer.**

FACULTY POSITIONS SECTION OF IMMUNOBIOLOGY YALE UNIVERSITY

The Section of Immunobiology is building a multidisciplinary group working on basic problems in immunobiology and seeks applicants for several faculty positions at the level of **ASSISTANT PROFESSOR**. Qualified applicants in all areas of mammalian gene expression and signal transduction are invited to apply. We are particularly interested in candidates in the areas of transcriptional regulation and transmembrane signal transduction. Candidates would be expected to develop an independent research program and to participate in departmental teaching. Candidates should submit curriculum vitae with a summary of present and future research interests, and request that three letters of recommendation be sent. Applications should be received at the address below no later than 15 April 1990.

Dr. Richard Flavell
Chairman, Section of Immunobiology
Yale University School of Medicine
310 Cedar Street, 424 FMB
P.O. Box 3333
New Haven, CT 06510

*An Equal Opportunity/Affirmative Action Employer.
Women and minority candidates are encouraged to apply.*

POSITIONS OPEN

ECOTOXICOLOGIST

The University of Georgia's Savannah River Ecology Laboratory (SREL) is seeking an ecotoxicologist. Candidate's research should relate to the effects of contaminants on free-living organisms and/or the viability and productivity of natural populations or communities, including genetic and physiological responses. The successful candidate must be able to work with a team of ecologists to study the effects of contaminants on functional properties of native biological systems. SREL scientists conduct research on the Department of Energy's Savannah River Site, a nuclear facility with a variety of impacted aquatic and terrestrial habitats. Rank and salary are negotiable. *Candidates must be U.S. citizens.* Interested individuals should send curriculum vitae, description of research interests, and selected reprints by 1 April 1990 to:

Dr. I. L. Brisbin, Jr.
Savannah River Ecology Laboratory
University of Georgia
P.O. Drawer E
Aiken, SC 29801

The University of Georgia is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

FACULTY POSITIONS IN PHYSIOLOGY AND BIOPHYSICS CASE WESTERN RESERVE UNIVERSITY

The Department of Physiology and Biophysics invites applications for tenure-track junior and senior positions. Candidates with strong credentials in membrane protein structure and function and electrophysiological and biophysical approaches are especially encouraged to apply; however, outstanding candidates in all areas of cell physiology and biophysics will be given serious consideration.

Terms are highly competitive and appointments provide excellent opportunities to develop strong, independent research programs in newly built state-of-the-art facilities in an expanding department and research community.

Submit curriculum vitae, brief statement of present and proposed research interest, representative reprints, and names of four references to: **Dr. Antonio Scarpa, Department of Physiology and Biophysics, Case Western Reserve University, 2119 Abington Road, Cleveland, OH 44106. The university is an Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF GUELPH DEPARTMENT OF VETERINARY MICROBIOLOGY AND IMMUNOLOGY ONTARIO VETERINARY COLLEGE

Applications are invited for two **TENURE-TRACK POSITIONS** in veterinary immunology. Applicants should have a Ph.D. and preferably a veterinary medical degree. Postdoctoral experience is preferred, together with evidence of productivity in research. The positions are among five in the immunology section of a department which has strength in the field of host-parasite interaction. Current interests in immunology include studies of protective immunity in respiratory disease, clinical immunology, genetics of host resistance and immune response, genetically engineered molecules of significance to host resistance, and control of immunoglobulin and oncogenes. There is an innovative program in advanced active and passive immunization technology involving scientists from several disciplines within this and other units. Interdisciplinary research is encouraged. Teaching is conducted in immunology at undergraduate (D.V.M. program) and postgraduate levels. Applicants may enrich the existing group by their potential activities in any of the ongoing fields of study or in aspects of molecular immunology/immunochemistry. One of the positions carries shared responsibility for a clinical immunology diagnostic laboratory and a suitable applicant should have demonstrated interests in diagnostic immunology.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Please address inquiries to: Dr. Bruce Wilkie, Chairperson, Department of Veterinary Microbiology and Immunology, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada, N1G 2W1. Applications will be accepted until 31 May 1990 or until the position is filled. Subject to final budgetary approval. The University of Guelph is committed to Employment Equity.

POSITIONS OPEN

FACULTY POSITION MICROBIOLOGY/VIROLOGY

The Department of Microbiology of the University of Texas Dental Branch is seeking a person to fill a faculty position. Duties include teaching microbiology at a graduate level and development and maintenance of an independent funded research program. The major interest of the department is the biology of DNA tumor viruses and their role in human disease. The dental branch is part of the University of Texas Health Science Center, with interactions with all of the component institutions. Salary and rank commensurate with academic experience. Please send curriculum vitae with a description of research interests to: **E. J. Shillitoe, Department of Microbiology, P.O. Box 20068, Houston, TX 77225. Telephone: 713-792-4105. The University of Texas Health Science Center at Houston is an Equal Opportunity Employer. Women and minorities are encouraged to apply.**

KING'S COLLEGE LONDON BIOMEDICAL SCIENCES DIVISION LECTURESHIP IN ANATOMY LECTURESHIP IN PHYSIOLOGY

Applications are invited for these two new long-term appointments. Applicants should have clear evidence of research potential or current achievement in an area of the Biomedical Sciences. Areas of research expertise within the division include developmental biology, neurobiology and neuropharmacology, molecular cell biology, human biology and physiology, receptors and intracellular signaling, endocrinology, and reproduction.

The appointments will be on Lecturer Scale A or B (range: £10,458 to £15,372 per annum or £16,014 to £20,469 per annum plus £1,767 London allowance).

Informal inquiries, further particulars, and application forms may be obtained from: **Professor K. E. Webster, Anatomy and Human Biology Group, telephone: 01-873-2484 (for the anatomy post) or Dr. T. J. B. Simons, Physiology Group, telephone: 01-873-2873 (for the physiology post). Address: Biomedical Sciences Division, King's College London, Strand, London WC2 2LS, England. FAX: 836-1799.**

Closing date: Friday, 16 March 1990.

UNIVERSITY LIBRARIAN

The University of California, San Francisco (UCSF), invites nominations and applications for the position of university librarian. UCSF is one of the nine campuses of the University of California system, and is unique among them in that it is devoted exclusively to the health sciences.

Responsibilities: The university librarian reports to the senior vice chancellor for academic affairs, and is responsible for the overall management of the resources, budget, and programs of the library, which will occupy a new building in the fall of 1990. The university librarian will guide the evolution of the library in the era of electronic information management: plan library support for UCSF personnel at all UCSF sites; seek extramural support for library programs, as appropriate; develop library policies and programs; in collaboration with faculty, guide the library's participation in support of instructional programs; participate in the universitywide Library Council; and represent UCSF in local, state, regional, and national health sciences library matters.

Requirements: The successful candidate must have an advanced degree from an ALA-accredited institution; substantial high-level administrative experience in health sciences libraries; knowledge of and involvement in current issues and developments in health sciences librarianship; advanced technological competence in library automation and electronic information management systems and their planning and implementation; and recognized skills in working with library personnel, students, faculty, administrative and professional colleagues, and community representatives. Candidates should have a record of significant contributions to the profession, and continued creative activity will be expected.

The position offers a highly competitive salary that is negotiable, depending upon experience and qualifications. Applicants should submit a letter of interest, current curriculum vitae, and names and addresses of five professional references to: **University Librarian Search Committee, c/o Dr. Karl J. Hittelman, Box 0400, University of California, San Francisco, CA 94143-0400.**

Applications must be received by 30 April 1990, to be considered.

UCSF is an Affirmative Action/Equal Opportunity Employer.

CEPHALON, INC.

Cephalon, Inc. is a leading neuroscience company discovering new technologies for the study and treatment of neurodegenerative diseases. We now have the following challenging positions available:

Chemist: Enzyme Inhibitors

We have an opening for a Ph.D. organic and/or peptide chemist with experience in the design and synthesis of enzyme inhibitors.

Molecular Biologist/Biochemist

Positions are available at the Ph.D. level to participate in scaling up the expression and purification of recombinant proteins.

Research Associates

B.S./M.S. staff positions are also available in chemistry, protein biochemistry, molecular biology, cell biology, and tissue culture.

Cephalon offers competitive compensation and outstanding advancement opportunities. Send resume to: **Cephalon, Inc., 145 Brandywine Parkway, West Chester, PA 19380.** An Equal Opportunity Employer.

MARINE SCIENTIST

National Cancer Institute Frederick Cancer Research Facility

The National Products Branch, Developmental Therapeutics Program, Division of Cancer Treatment, Frederick, Maryland, invites applicants for the position of Marine Scientist.

Duties will center on the acquisition of marine organisms and materials of marine origin for testing in the NCI antitumor and AIDS antiviral screening programs, and coordination of programs for the discovery and development of antitumor and anti-HIV agents from marine sources. The position will involve extensive liaison activities with domestic and foreign research organizations and Government agencies. Candidates should have a Ph.D. or 4 years of professional post-bachelor degree experience in marine biological science, and extensive familiarity with taxonomy, ecology and collection techniques, as well as a knowledge of alternative methods of production, such as aquaculture and cell culture.

Salary for this GS-1320-13 position ranges \$42,601-\$55,381.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to:

Mrs. M. Johnson
Personnel Management Branch, NCI
Building 428, Room 39
NCI-Frederick Cancer Research Facility
P.O. Box B
Frederick, MD 21701-1013
Phone: (301) 698-5023



NIH IS AN EQUAL OPPORTUNITY EMPLOYER

BIOTECHNOLOGY

Cetus Corporation, a leader in the development of biotechnology-based therapeutics for cancer and infectious diseases, has the following opportunities available:

SCIENTIST/SENIOR SCIENTIST CELL BIOLOGY

We are seeking an experienced Cellular Immunologist, and a Post Doctoral Fellow, to study cellular mechanisms of inflammation and identify proteins of interest for therapeutic use. Of special interest are cytokines which regulate immunity and inflammation. The successful candidates will have a PhD with 3-5 years' experience in Cellular Immunology. Supervisor experience is a plus.

Positions require a PhD in Cell Biology or Cellular Immunology with hands-on experience in bioassay development and characterization of cytokines involved in inflammation or immune responses. Experience with human cells is preferred. Box 89260/PR.

ASSOCIATE SCIENTIST/ SCIENTIST IMMUNOPHARMACOLOGY

This Scientist will be developing a preclinical program to evaluate immunologically-based products in infectious disease models. Both the practical application and the immunological basis for activity of these products are anticipated to be a part of this program.

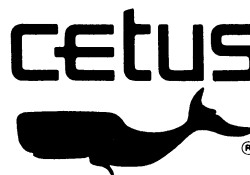
Position requires 2-5 years' post-degree experience, familiarity with immunological mechanisms of infectious diseases, and in vivo modeling and testing experience. Candidates with experience in the use of protein products preferred. Box 90048/BZ.

MANAGER, DNA SEQUENCING GROUP

The successful candidate will supervise the DNA Sequencing Group. Duties include performing DNA sequencing work as needed and developing new DNA sequencing-related technologies.

Position requires a PhD in Biochemistry or Molecular Biology and extensive experience in DNA sequencing methods. Experience supervising scientific personnel highly desirable. Box 90040/HW.

Cetus offers excellent compensation and benefits along with an environment that encourages career and personal growth. For consideration, please send your resume, with appropriate Box #, to: Cetus Corporation, 1400 Fifty-Third Street, Emeryville, CA 94608. We are an Equal Opportunity Employer.



INSTITUTE OF HUMAN GENETICS

University of Minnesota

The Institute of Human Genetics at the University of Minnesota will be hiring faculty at the rank of **Professor (tenured)**, or **Associate Professor (tenured)**, or **Assistant Professor (tenure-track)** in the areas of higher Eukaryotic Molecular and Developmental Genetics.

Candidates at the Assistant Professor level will have a doctoral degree (M.D. or Ph.D.), 2 years of relevant postdoctoral experience, and demonstrated involvement in quality research accepted or published in peer-reviewed journals. Candidates at the Associate Professor level will have a doctoral degree (M.D. or Ph.D.), 5 years of professional experience beyond the degree, professional distinction in research and writing, and demonstrated effectiveness in teaching and advising. Candidates at the Professor level will have a doctoral degree (M.D. or Ph.D.), 8 years of professional experience beyond the degree, a national reputation in research and writing, and demonstrated effectiveness in teaching and advising.

Candidates will be expected to develop a vigorous, independent research program that complements the research being conducted by other University faculty and leading to external funding; participate in teaching and advising; and interact with other members of the Institute in the development of the Institute and its programs. Salary and rank will be commensurate with education and experience, and tenure will be granted in the appropriate University department.

Please send a curriculum vitae, a brief description of current and future research plans, and 3 letters of recommendation to:

Chair
Search Committee
University of Minnesota Medical School
Institute of Human Genetics
Box 206 UMHC
Harvard Street at East River Road
Minneapolis, MN 55455

The last date for receipt of applications is June 30, 1990.

*The University of Minnesota is an equal opportunity educator and employer
and specifically invites and encourages applications
from women and minorities.*

DEUTSCHES RHEUMA-

FORSCHUNGSZENTRUM BERLIN

This new centre is founded to carry out laboratory and clinical research on rheumatism. In 1993 it will move from temporary accommodation to new buildings on the Kleine Wannsee connected to the Immanuel Hospital for rheumatic disease. Research and teaching will be coordinated with the Free University of Berlin. Applications are now sought for the following positions.

MOLECULAR CELL BIOLOGIST IMMUNOLOGIST

One each, to lead a laboratory group coordinated with clinical studies. Appointments in 1990, for 5 years with possibility of indefinite extension.

EPIDEMIOLOGIST

To initiate research on rheumatism with special reference to psychosocial factors. Appointment in 1990/91 for 5 years with possibility of indefinite extension.

POSTDOCTORAL FELLOWSHIPS

Several 3 year appointments are offered in the above fields, starting in 1990 and 1991.

Remuneration will be in accordance with the German Official Service Salary Scale (BAT). Applications should be sent before March 15th to:

Professor N.A. Mitchison, Scientific Director,
Deutsches Rheuma-Forschungszentrum Berlin,
Am Kleinen Wannsee 5, D-1000 Berlin 39,
Tel (030) 8055934,
or in London (01)3880905.

Plant Science Technology

Plant Science Technology, an integral part of Monsanto Company, located in suburban St. Louis, is committed to high quality basic and applied research in plant science.

Development of Plants Resistant to Virus Infection

A B.S./M.S. molecular biologist is needed immediately in this program to develop virus resistance in several crop plants. Responsibilities will include cloning of viral genes, DNA and RNA sequencing, construction of vectors, in vitro mutagenesis, analysis of gene expression, and analysis of resistance in transgenic plants. The molecular biologist will work as part of a multidisciplinary team.

Please send curriculum vitae and names of three references to: **John R. Amato, Mail Zone BB2A; MONSANTO COMPANY; 700 Chesterfield Village Parkway; St. Louis, MO 63198.** Equal Opportunity Employer M/F/H/V.

Careers for people with ideas

Monsanto

Public Health Service

National Institutes of Health

National Institute of Environmental Health Sciences

Post Office Box 12233 Code HNV17

Research Triangle Park, North Carolina

Phone: (919) 541-7811 or FTS 629-7811

INTERDISCIPLINARY POSITION VACANCY

The National Institute of Environmental Health Sciences (NIEHS) is currently recruiting for an Interdisciplinary position in the Systemic Toxicology Branch of the Division of Toxicology Research and Testing. NIEHS is a Federal biomedical research institute that conducts research and research training on biological effects of chemicals, physical and biological substances in the environment. This is a permanent supervisory position requiring a Ph.D. degree or equivalent which includes a major field of study in one of the disciplines mentioned below with expertise in the areas of chemical metabolism, disposition, and mechanisms of chemical toxicity. Experience should be evidenced by direct supervisory responsibility, manuscripts based on original research and recognition as a leader in the field of toxicology. The incumbent will serve as Head, Chemical Disposition Workgroup in the Systemic Toxicology Branch.

Position may be classified in any of the following series: Toxicologist, GS-415; Chemist, GS-1320; or Pharmacologist, GS-405; Grade, GS-13/14; Salary Range: \$42,601 - \$65,444.

For additional information, contact Ms. Lisa Fletcher at 919-541-7811. Interested candidates should submit a letter, curriculum vitae and the names of three references to Ms. Fletcher at the above address.

The deadline for receipt of applications is April 30, 1990.

U.S. Citizenship is Required
NIH is an Equal Opportunity Employer

Vanderbilt University
Department of Molecular Biology

CHAIR

The College of Arts and Science of Vanderbilt University invites applications and nominations for the position of Chair of the Department of Molecular Biology. We seek an accomplished individual capable of guiding an established group of scientists who have a broad range of interests.

The Department of Molecular Biology has 15 currently authorized tenured and tenure-track faculty, 31 graduate students and 60 undergraduate majors. It is amply housed and funded.

Applications, which should include a curriculum vitae and the names of four references, or letters of nomination should be sent to:

Chair, Search Committee, Department of Molecular Biology, Box 1820, Station B, Vanderbilt University, Nashville, Tennessee 37235

Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

Senior Scientist

Kraft General Foods is a \$22 billion company, and a world leader in the food industry. We are currently seeking a molecular structure scientist to work in our Basic Science Division.

The selected individual will join a team studying the structure, dynamics and interactions of a variety of food components. We require a Ph.D. or equivalent experience in Biophysics, Physical Chemistry or Biochemistry, with appropriate background in spectroscopic determination of macromolecular structure by NMR and other methods.

Our innovative R&D programs are supported by high field NMR, molecular modeling, x-ray, FTIR, CD and other advanced instrumentation. We offer an attractive compensation and full benefits package. Please send resume with salary history in confidence to: Manager, Technical Recruiting, Kraft General Foods, Technology Center, 801 Waukegan Road, Glenview, IL 60025. An equal opportunity employer m/f/h/v.

KRAFT GENERAL FOODS

Alpha Therapeutic Corporation is a leader in the manufacture and worldwide distribution of pharmaceutical products and plasma derivatives. Our reputation within the industry makes us a company you can count on for professional challenge, recognition and rewards. Current opportunities include:

CLINICAL PROJECT MANAGERS

Chemotherapy & Radiation Therapy

These positions, in the Oncology area, require individuals with a Ph.D. in a medical science or related field along with excellent interpersonal and communication skills. Experience in oncology, conducting Clinical Trials with chemotherapeutic agents or radiation therapy is preferred. Knowledge and use of microcomputers including word processing, database and statistical applications are highly desired.

The successful applicant will design, monitor, interpret and evaluate Clinical Trials; write Clinical Protocols; prepare and submit reports to the FDA; interface with clinical and pre-clinical Investigators; and supervise the monitoring team. Up to 30% travel is required.

CLINICAL RESEARCH ASSOCIATES

Immunology & Oncology

Requirements include a Bachelor's degree in a physical/biological science with at least 2 years laboratory or clinical research experience. New Master's graduates without experience will be considered. Computer literacy preferred. The ability to interpret/evaluate laboratory and clinical data along with an understanding of experimental design logic is also required. Approximately 25% travel is required.

At Alpha Therapeutic Corporation, you can count on competitive salaries and excellent benefits. For immediate consideration, submit resume, indicating area of interest, to: **Robert Gonzales, Professional Recruiter, ALPHA THERAPEUTIC CORPORATION, 5555 Valley Blvd., Los Angeles, CA 90032. AA/EOE**

alpha™
THERAPEUTIC CORPORATION

TOXICOLOGY CONTRACT ADMINISTRATOR

BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc. is a major researcher, developer, manufacturer and marketer of prescription and over-the-counter drug products. The Toxicology and Safety Assessment Department, located in **DANBURY, CT** at our Research and Development Center, is seeking a TOXICOLOGY CONTRACT ADMINISTRATOR.

The individual we seek will have a Ph.D in a Bio-science with 5 years similar experience or a Master's Degree and extensive related experience. Excellent administrative skills and a working knowledge of biostatistical techniques and GLP regulations are essential.

Responsibilities include: initiating, scheduling, monitoring and reviewing internal and external toxicological investigations; acting as liaison to Drug Regulatory Affairs and New Product Development groups; and interfacing with contract laboratories and government inspectors. In addition, you will administer and coordinate budgets, contracts and studies.

BOEHRINGER INGELHEIM offers one of the industry's finest compensation/benefits packages, relocation assistance and the opportunity to have your contributions recognized.

If interested in this opportunity, please send your resume and salary requirements to: Dept. MH-1S-014, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v.



**Boehringer
Ingelheim**

POSITIONS OPEN

TENURE-TRACK FACULTY POSITION ANESTHESIOLOGY RESEARCH UNIT WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

A tenure-track faculty position at the **ASSISTANT OR ASSOCIATE PROFESSOR** rank is available immediately for an investigator interested in basic mechanisms of signal transduction. Desirable candidates will have expertise in biochemical and/or molecular biological approaches to cellular mechanisms that couple ligand binding to physiological effects. Areas of particular interest might include, but are not limited to, G-proteins, kinases, Ca^{2+} -binding proteins, and chemical second messengers. The research unit is a small, interactive group of investigators with interests currently focusing on function and modulation of ion channels, regulation of intracellular calcium, phosphoinositide metabolism, smooth muscle physiology, and neuronal pattern generation. The successful applicant would be expected to establish a complementary and independent research program in the research unit. Newly developed modern laboratory space and generous start-up funding are available. A Ph.D. and/or M.D. degree and a minimum of 2 years of postdoctoral training are required. Candidates should send curriculum vitae, a description of proposed research plans, and the names of three referees to: **Dr. J. H. Steinbach, Chairman, Faculty Search Committee, Anesthesiology Research Unit, Washington University School of Medicine, Box 8054, 660 South Euclid Avenue, St. Louis, MO 63110.**

TENURE-TRACK FACULTY POSITIONS IN MOLECULAR PHARMACOLOGY THE UNIVERSITY OF MINNESOTA

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 the area of molecular neuropharmacology and to participate in departmental teaching responsibilities. Requirements include a Ph.D. in pharmacology, biochemistry, cell biology, or related field or an M.D., and 2 years of postdoctoral experience. Candidates with a strong research background and experience using recombinant DNA technology for studying pharmacological problems and molecular biology of the CNS 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 an ability to attract extramural grant support, and who have demonstrated effectiveness in teaching and advising.

Applicants should 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 31 May 1990.

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

U.S. ARMS CONTROL AND DISARMAMENT AGENCY PHYSICAL SCIENTIST, GS-12 to GS-13 \$35,825 to \$55,381

The U.S. Arms Control and Disarmament Agency is seeking a physical scientist at the GS-12 to GS-13 level for its Strategic Programs Bureau to serve as a staff member of the Strategic Affairs Division which has responsibility for negotiations on the ABM treaty. The successful candidate for this position should combine a strong scientific background with an interest in the policy applications of science and technology, especially to strategic arms control. This person will assist in preparing guidance for the U.S. component of the Standing Consultative Commission (SCC) created by the ABM treaty. The incumbent will also assist in assessing Soviet compliance with the ABM treaty and for analyzing possible changes in the treaty. *U.S. citizenship and a Top Secret level security clearance by ACDA are required before entry on duty.* Applicants should contact: **Mr. Wiles, telephone: 202-647-2034** for a vacancy announcement and submit form SF-171 before 30 March 1990.

POSITIONS OPEN

UNIVERSITY OF OXFORD UNIVERSITY LECTURESHIP IN PHYSIOLOGY IN ASSOCIATION WITH OFFICIAL FELLOWSHIP AT ST. JOHN'S COLLEGE

Applications are invited from candidates who have specialized in any area of physiology or related disciplines for a university lectureship in physiology, in association with an official fellowship at St. John's College, tenable from 1 October 1990. Further details may be obtained from: **Professor Colin Blakemore, University Laboratory of Physiology, Parks Road, Oxford OX1 3PT, England**, to whom applications (13 typescript copies or, in the case of overseas candidates, one copy)—to include full curriculum vitae, list of publications, and a statement of research interests and teaching experience—should be sent by 6 April 1990, together with the names of three referees who have agreed to send their opinions without further request by the same date.

UNIVERSITY OF LOUISVILLE WATER RESOURCES LABORATORY

GROUND WATER SCIENTISTS or BIOGEOCHEMISTS. Water Resources Laboratory (WRL) has a tenure-track position as **ASSISTANT PROFESSOR** for fall of 1990. Teaching in allied department in research through WRL required. Ph.D. by August 1990 necessary (postdoctoral training desirable). Prefer ecosystems (including hyporheic zone). Send curriculum vitae, reprints of publications, official transcript, and three letters of recommendation by 16 April 1990 to: **Dr. James H. Thorp, Director, Water Resources Laboratory, University of Louisville, Louisville, KY 40292.** *The University of Louisville is an Affirmative Action/Equal Opportunity Employer.*

MICROBIOLOGIST. Faculty position available for microbiologist to teach medical microbiology and work independently and/or collaboratively with other research teaching faculty. Primary responsibilities: not more than 25% of time teaching medical students and at least 75% of time for research. Salary and academic rank commensurate with training, teaching experience, and grant track record. Please send curriculum vitae detailing teaching experience, research interests, and grant support information and the names of three references to: **Dr. Arnold L. Nagler, Associate Dean, Basic Sciences, New York College of Osteopathic Medicine, Old Westbury, NY 11568.** *Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGIST (DNA sequencing specialist) for biochemical manufacturer in Cleveland, Ohio. Conduct research to prepare and test reagents including nucleotide mixtures, buffers, and primers for DNA sequencing. Develop new methods of DNA sequencing using various enzymes and single/double-stranded templates. To carry out above, utilize experience in DNA cloning/sequencing and knowledge of molecular biology and pathology, biochemistry, eukaryotic cell biology, microscopic anatomy, receptor study, endocrinology, and radiation safety. Requirements: M.S. in biology and 1 year of experience in job described or 1 year of experience as graduate/research assistant with research experience in molecular pathology or biochemistry. Forty hours per week, 9 a.m. to 5 p.m., Monday to Friday; \$25,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **S. Holton, JO# 1084517, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

PEDIATRIC INFECTIOUS DISEASES AND PEDIATRIC GENETICS SPECIALISTS

The Department of Pediatrics at the University of Michigan is seeking a Board-eligible/certified pediatric infectious diseases specialist and a pediatric geneticist for full-time academic, tenure-track positions. Please send curriculum vitae to: **Janet R. Gilsdorf, M.D., Director, Pediatric Infectious Diseases Service, C. S. Mott Children's Hospital, University of Michigan Medical Center, Ann Arbor, MI 48109-0244.** For the pediatric genetics position, please send curriculum vitae to: **Robert P. Kelch, M.D., Chair, Department of Pediatrics, University of Michigan, Ann Arbor, MI 48109-0718.** *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MOLECULAR BIOLOGISTS

Group leader and postdoctoral researcher to use recombinant DNA technology and gene transfer in both fungi and plants to study plant-fungus interactions. Send curriculum vitae and three letters of reference to: **Dr. P. E. Kolattukudy, Director, Ohio State Biotechnology Center, 206 Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210.** *Equal Opportunity/Affirmative Action Employer.*

NUTRITIONIST/BIOCHEMIST

A nutritionist is needed to fill a full-time faculty position teaching courses in both nutrition and biochemistry. Applicants must possess an advanced degree in nutrition, preferably a Ph.D. Qualified individuals may submit a résumé to: **Director of Basic Sciences, Cleveland Chiropractic College, 6401 Rockhill Road, Kansas City, MO 64131.** *Affirmative Action/Equal Opportunity Employer.*

PHYSIOLOGIST. Faculty position available for general physiologist to teach medical physiology and work independently and/or collaboratively with other research teaching faculty. Primary responsibilities: not more than 25% of time teaching medical students and at least 75% of time for research. Salary and academic rank open and commensurate with training, teaching experience, and grant track record. Please send curriculum vitae detailing teaching experience, research interests, and grant support information and the names of three references to: **Dr. Arnold L. Nagler, Associate Dean, Basic Sciences, New York College of Osteopathic Medicine, Old Westbury, NY 11568.** *Affirmative Action/Equal Opportunity Employer.*

PLANT CELL BIOLOGIST

Entry level **ASSISTANT PROFESSOR.** Fall of 1990. To teach cell, general, and plant biology. Tenure track. Requirements: Ph.D., commitment to excellence in undergraduate teaching, and research program with opportunities for student participation. For detailed job description and application procedure, write promptly to: **Dr. Richard Nickerson, Biology Department, Simmons College, 300 The Fenway, Boston, MA 02115.** *An Affirmative Action/Equal Employment Opportunity Employer.*

PLANT MOLECULAR BIOLOGIST M.S./B.S.

Westvaco, a leader in pulp and paper products manufacturing, is expanding its forest research program in tree molecular biology. We seek a highly motivated individual to carry out experiments in RFLP analysis and genetic transformation of forest trees. Primary duties will be to perform laboratory experiments with additional responsibility for the day-to-day management of laboratory supplies and equipment. Responsibility for experimental design and data analysis is involved and will increase as experience is gained. The successful candidate will have an M.S. with at least 2 years of experience in molecular biology. Westvaco offers a competitive salary and benefits package. The molecular biology group is housed in new laboratories located 20 miles northwest of Charleston, South Carolina. Submit curriculum vitae, transcripts, and three letters of reference by 16 March 1990 to: **Mr. T. C. Bush, Westvaco, P.O. Box 1950, Summerville, SC 29484.**

Equal Opportunity Employer, M/F.

POSTDOCTORAL POSITION. PLANT BIOCHEMISTRY/MOLECULAR BIOLOGY with United States Department of Agriculture, Agricultural Research Service (USDA-ARS). A postdoctoral position is available immediately to participate in studies on natural rubber biosynthesis. Research focuses on the regulation of the biosynthetic pathway and on the isolation of key enzymes and genes, with the eventual goal of producing microorganisms and agronomic plants able to synthesize high quality rubber. Previous experience in molecular biology, plant biochemistry, and/or protein chemistry desired. Beginning salary range: \$29,891 to \$35,825, depending on qualifications. For information about the research program, contact/submit applications to: **Dr. Katrina Cornish, USDA-ARS, Western Regional Research Center, PBT, 800 Buchanan Street, Albany, CA 94710, telephone: 415-599-5950.** For application procedures/forms, contact: **Rita J. Millard, telephone: 301-344-3138.** *An Equal Opportunity Employer.*

Drug Metabolism/ Pharmacokinetics



The continued expansion of our Central Research facilities at Groton, Connecticut has created a need for qualified PhD and BS/MS research scientists in our Drug Metabolism Department.

Research Scientist (PhD) — Will be responsible for design and conduct of investigations into the pharmacokinetics and metabolism of experimental drugs in animals and humans. Will interact in a project area with a multidisciplinary team including chemists, biologists and clinicians where pharmacokinetics and drug metabolism input is essential to the discovery and development of new drugs. Will work with some of the most advanced equipment and support systems available. Publication of original research encouraged. Requires a PhD in Pharmacology, Pharmacokinetics, Biochemistry or Pharmaceutical Chemistry, preferably with postdoctoral training or employment. Practical experience with bioanalytical methods is essential. Must be creative and possess superior interpersonal and communication skills.

Research Assistants (BS/MS) — Responsibilities for this position include: the development and utilization of analytical chromatographic methods for monitoring drugs and metabolites in biological samples; isolation and identification of metabolites utilizing instrumental methods; collection of biological samples, and use of *in vivo* and *in vitro* techniques; utilization of electronic data systems for acquiring and processing data. Applicants should possess a BS or MS degree in Chemistry, Biochemistry, or the biological sciences and have an interest in the analysis, disposition, and metabolism of drugs.

These positions offer a superb professional environment in an attractive southeastern Connecticut shore area, complemented by a competitive salary/benefit/relocation package. Please send a resume and description of research interests to: Mrs. Lorraine C. Corr, Employee Resources, Pfizer Central Research, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.

RESEARCH DIRECTOR Molecular Biology



Pharmacia P-L Biochemicals, Inc., the international headquarters for Research, Production and Marketing of Molecular and Cell Biology Reagents, has an opening for a research professional with proven managerial abilities.

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EXECUTIVE DIRECTOR OF RESEARCH,

The **Liposome**
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One Research Way, Princeton, NJ 08540

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE. Ph.D. or equivalent in medicine/endocrinology. Perform and interpret experiments relating to hormonal regulation of breast cancer growth; specifically, interaction between polypeptides and autocrine/paracrine factors affecting growth. Major emphasis will be placed on polyamine involvement in signal transduction. Molecular biology expertise desirable, although not a strict requirement. Available June of 1990; \$22,000 per annum. Contact: **Dr. A. Manni, Pennsylvania State University College of Medicine, P.O. Box 850, Hershey, PA 17033.** An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION. Available in group investigating the modification of GTP-binding proteins by isoprenoid groups. Ongoing studies involve (i) the enzymology of the modification reactions, (ii) the mechanism of binding of isoprenoid-modified proteins to cell membranes, and (iii) the biological role of isoprenoid-modified proteins. Send curriculum vitae, three letters of recommendation, and summary of career goals to: **Dr. John A. Glomset, Department of Biochemistry, SL-15, University of Washington, Seattle, WA 98195.**

ASSOCIATION CORTEX

POSTDOCTORAL POSITION available summer of 1990. Three years of support to study the function and connectivity of neural networks concerned with the control of visual attention and related eye movements. Behavioral neurophysiology, contemporary neuroanatomy in primates. Send curriculum vitae, research experience, and three letters of reference to: **Dr. James C. Lynch, Department of Anatomy, University of Mississippi Medical Center, Jackson, MS 39216.** Equal Opportunity Employer, M/F/H/V.

POSTDOCTORAL POSITIONS. Immediately available in a laboratory interested in muscle development, regeneration, response to disease and trauma, and neuromuscular integration. Techniques used in research include: immunocytochemistry, in situ hybridization, electron microscopy, gel electrophoresis, tissue culture, and fetal surgery. Recent, appropriate doctoral degree required. Send curriculum vitae and names of three references to: **Dr. Marcia Ontell, Department of Neurobiology, Anatomy, and Cell Science, 868B Scaife Hall, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN EEG/ERP RESEARCH

The University of Connecticut's Alcohol Research Center has an NIAAA-sponsored fellowship available 1 July 1990 for a qualified Ph.D. to study event-related potential correlates of the risk for alcoholism. Experience with EEG/ERP recording techniques is necessary. Preference will be given to applicants with computer programming and laboratory management skills. Send curriculum vitae and three letters of reference to: **Lance Bauer, Ph.D., Department of Psychiatry, University of Connecticut Health Center, Farmington, CT 06032.** Telephone: 203-679-4154.

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POSTDOCTORAL POSITIONS UNIVERSITY OF PENNSYLVANIA

Postdoctoral positions are available for study and training with a group of investigators interacting in programs concerning the metabolism and molecular biology of connective tissues. Topics include: structure and biology of basement membranes, molecular biology of elastin, immunopathology of renal disease, molecular biology of collagen genes, cell biology of pulmonary and vascular cells, molecular biology of cartilage matrix, exogenous factors and cardiovascular cells, synthesis and secretion of connective tissue macromolecules, and analysis of embryonic development.

Send résumé to: **Nicholas A. Kefalides, M.D., Ph.D., Director, Connective Tissue Research Institute, University of Pennsylvania, University City Science Center, 3624 Market Street, Philadelphia, PA 19104.** Candidates should hold U.S. citizenship or permanent resident status. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Educator and Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR IMMUNOLOGY. Available at the Johns Hopkins University School of Medicine. The laboratory studies human T cell recognition of the envelope glycoproteins of HIV, with particular emphasis on antigen processing and mechanisms of pathogenesis. Contact: **Dr. Robert Siliciano, 603 Hunterian, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.** Telephone: 301-955-2958.

POSTDOCTORAL POSITION. NIH-funded position is available 1 April 1990 for outstanding individual with recent doctoral degree in cellular immunology or molecular biology to participate in studies of the pathogenesis of viral infection and host response. Laboratory is continuing studies on murine response to vesicular stomatitis virus at levels ranging from host pathology to molecular immunology. Appointment will be held in the Department of Pathology at Harvard Medical School. Send curriculum vitae, statement of research interests, and a list of names and addresses of at least three references to: **Dr. C. S. Reiss, Division of Pediatric Oncology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02118.** FAX: 617-735-8647. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS are available in the area of membrane biochemistry and molecular biology to study a novel enzyme system which utilizes phospholipids rather than ATP as an energy source [*Science* 244, 968 (1989) and *Biochemistry* 29, 309 (1990)]. The enzyme system in question carries out the energy requiring biosynthesis of the visual chromophore from vitamin A, which is essential for rhodopsin regeneration in the vertebrate visual system. Of particular interest is the purification of the enzymes, their cloning, and their mechanisms of action. Send curriculum vitae and letters of recommendation to: **Dr. Robert R. Rando, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, 240 Longwood Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION ANTI-GROWTH FACTOR RESEARCH

The Department of Molecular and Cellular Growth Biology is seeking a postdoctoral scientist to study the challenging new field of inhibitors of growth factor activities. Research will involve characterization of competitive, noncompetitive, and suicide antagonists of angiogenic factors with the ultimate goal of establishing their efficacy in biological systems and models of diseases of proliferation.

Interested candidates should send detailed curriculum vitae with a list of publications to: **Dr. Andrew Baird, Chairman, Department of Molecular and Cellular Growth Biology, The Whittier Institute for Diabetes and Endocrinology, 9894 Genesee Avenue, La Jolla, CA 92037.** Equal Opportunity Employer, M/F/H.

POSTDOCTORAL POSITION. Available immediately to participate in research in structural biology of macromolecular assemblies and subcellular structures using electron microscopy and image processing. The candidate should have a strong mathematical background and be willing to further develop mathematical and computational tools in the area of three-dimensional reconstruction, and restoration of EM data. Send curriculum vitae and references to: **Dr. Joachim Frank, Health Research, Inc., Wadsworth Center for Laboratories and Research, Empire State Plaza, Albany, NY 12201.** Affirmative Action/Equal Opportunity Employer.

CENTER FOR NEURAL INJURY, University of California, San Francisco. Multidisciplinary research program examining pathophysiological mechanisms of tissue injury after experimental spinal cord trauma, brain trauma, or stroke. Two to three **POSTDOCTORAL POSITIONS** in the following areas: neuroanatomy/neuropathology, including immunocytochemistry and receptor autoradiography; neurochemistry with immunology experience; blood flow/metabolism. Ph.D. required. Salary dependent upon experience. Send curriculum vitae and names and telephone numbers of three references to: **Alan I. Faden, M.D., Neurology (127), Veterans Administration Medical Center, 4150 Clement Street, San Francisco, CA 94121.** The University of California is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION. Available in July of 1990. Background in physiology, biochemistry, or biophysics to study an animal model for sickle cell vasoocclusion and abnormal red cells. Must hold M.D. or Ph.D. degree and have U.S. citizenship or green card. Send curriculum vitae and references to: **M. E. Fabry, Department of Medicine, Ullmann Room 921, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461.**

POSTDOCTORAL POSITION

Position available immediately for research in biochemistry of the ocular lens/cataract. Requires doctoral degree. Experience in cell culture and/or analytical techniques desired. Funding available for up to 4 years. Send curriculum vitae and three letters of recommendation to: **H. M. Jernigan, Department of Biochemistry, University of Tennessee, Memphis, TN 38163.** An Equal Opportunity/Section 504/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE POSITION(S). Available in a neuroscience lab which studies neurotransmitter release due to pain and analgesia, especially with respect to substance P and excitatory amino acids. Experience doing HPLC, receptor binding, electrophysiology, or in vivo microdialysis is desirable. Ph.D. in biological sciences required. Positions available to start between 1 April 1990 and 15 July 1991. Send curriculum vitae as soon as possible and/or before 31 May 1991 to: **Alice A. Larson, Ph.D., Department of Veterinary Biology, University of Minnesota, 1988 Fitch Avenue, St. Paul, MN 55108.** The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

POSTDOCTORAL POSITIONS, ECOSYSTEM/EARTH SYSTEM SCIENCE. The interdisciplinary Earth System Science Group at Stanford University/NASA Ames Research Center/Carnegie Institution of Washington has immediate openings for three postdoctoral fellows. Positions are in (i) modeling controls on and budgets of nitrogen gas emission in tropical ecosystems, (ii) controls on nutrient cycling during ecosystem development in Hawaii, and (iii) developing models of nutrient cycling with the potential to be driven by remote sensing inputs. Applicants should send curriculum vitae and arrange to have three letters of recommendation sent to: **Professor P. M. Vitousek, Department of Biological Sciences, Stanford University, Stanford, CA 94305.** Stanford University, NASA, and the Carnegie Institution of Washington are Equal Opportunity/Affirmative Action Employers.

POSTDOCTORAL RESEARCH ASSOCIATE

Exciting opportunity for postdoctoral research associate to join a multidisciplinary program utilizing a unique approach to characterize receptor ligand systems in cytolytic lymphocyte-target cell destruction. Experience in cellular immunology (preference given to T cell cloning), membrane protein biochemistry and molecular biology techniques; 0 to 3 years of postdoctoral experience. Three years of NIH support. We offer an excellent salary with possibility of permanent faculty appointment. Contact: **Dr. Allen J. Norin, Box 19, State University of New York Health Science Center at Brooklyn, 450 Clarkson Avenue, Brooklyn, NY 11203-2098.** Equal Opportunity/Affirmative Action Employer. DMC#CR0289.

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Exciting opportunity to study the role of proteinases in inflammation. Biochemical, molecular biological, and morphological methods, including in situ hybridization, will be used to evaluate plasminogen activator metabolism in experimental inflammatory models in animals. These studies are an integral part of a large program project with multiple collaborations across departments at the University of Pennsylvania. Two years of postdoctoral experience preferred. Opportunity for growth within the department. Reply to:

**Gerald S. Lazarus, M.D.,
Department of Dermatology
University of Pennsylvania
211 Clinical Research Building
422 Curie Boulevard
Philadelphia, PA 19104-6142**

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Starting salary commensurate with qualifications and
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Gerontology Research Center
National Institute on Aging
4940 Eastern Avenue
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NATIONAL INSTITUTES OF HEALTH

**DIRECTOR, DIVISION OF COMPUTER
RESEARCH AND TECHNOLOGY**

The National Institutes of Health, in Bethesda, Maryland, is recruiting for the position, Director, Division of Computer Research and Technology. The Director plans, directs, and conducts a broad research and services program to provide professional programming, computational, and automatic data processing capabilities in support of NIH's biomedical research needs. The Director provides executive level leadership for the transition into the future phases of computer science and technology as these new and advanced phases affect biomedical research and NIH computational requirements. This includes responsibility for keeping current with innovative and unique computer technologies and capabilities as well as advancing the state-of-the-art in computer research and applications. The Division of Computer Research and Technology is comprised of seven laboratories and branches with a staff of over 310 employees and a budget of approximately \$85 million.

This position is in the Senior Executive Service and has a salary range of \$71,200 - \$81,400, plus benefits. In addition, physicians may be eligible to receive an allowance up to \$20,000 per year.

Applicants must possess broad administrative experience in planning and conducting and integrated and multidisciplinary computational biomedical research and services program. In addition, applicants must have training and experience in one or more of the following disciplines: biomedical research, computer science, electronics or computer engineering, mathematics, or statistics.

To apply, send an Application for Federal Employment, SF-171, (available at all Federal Job Information Centers and Federal Personnel Offices), curriculum vitae and bibliography to the following address. Resumes are not acceptable applications.

Applications must be received by March 30, 1990.

**Mr. Stephen C. Benowitz, Director (S)
Division of Personnel Management
National Institutes of Health
Building 1, Room B1-60
9000 Rockville Pike
Bethesda, Maryland 20892**



Additional information may be obtained by calling Mr. Jack Andrews on (301) 496-5087.

Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization.

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Investigate membrane products performance in diverse molecular biology applications. Conduct applications directed research on the utility of new, microporous polymeric filters in Western, Southern and Northern protocols. Requirements include an MS/Ph.D and 3+ years' experience in protein and nucleic acid electrophoresis and various blotting techniques.

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Participate in an exciting R&D project. Requirements include a BS and 2-6 years' nucleic acid biochemistry experience. Experience with isolation, labeling and characterization techniques, handling radioisotopes, growing microorganisms and using sterile techniques required.

Interested candidates should forward a resume, including salary requirements, to: Bill Ehmann, Human Resources, Millipore Corporation, 80 Ashby Road, Bedford, MA 01730. An equal opportunity employer.

MILLIPORE

Microbial Pesticides

BioTechnica International, Inc. (BTI) has openings at its Cambridge, MA facility for highly-motivated scientists at both the senior and junior level (Ph.D., M.S. and B.S.) to join a team developing microbial pesticide products to control soil-borne diseases of major agricultural crops. Successful candidates will have a background in plant pathology with special emphasis on nematode or soil-borne fungal diseases. Experience with biological control or microbiology of the rhizosphere would be ideal. Salary negotiable depending upon experience.

BioTechnica International, Inc. is a diversified biotechnology company with established commercial operations in the fields of crop agriculture and DNA probe diagnostics and is a world leader in the development and application of next-generation technologies in the areas of agricultural biotechnology, microbial production systems and diagnostics.

Qualified candidates should forward resume to BioTechnica International, Inc., Human Resources Department, 85 Bolton Street, Cambridge, MA 02140. BTI is an equal opportunity employer.



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POSITIONS OPEN

MACARTHUR FOUNDATION

PROGRAM OFFICER. The MacArthur Foundation invites applications for the position of program officer in its health program. The program supports collaborative research on mental health and human development and activities which strengthen the policy process, facilitate knowledge dissemination, and foster collaboration. A program officer participates in the planning, development, and oversight of all program activities. Applicants must have a doctorate (Ph.D., M.D.), 10 years of professional experience, and a track record of research related to mental health and/or human development. Selection criteria include breadth of knowledge and perspective, interest in the application of research results, and demonstrated capacity to work collaboratively. Telephone inquiries will not be accepted. Applicants should send curriculum vitae and letter of interest by 27 March 1990 to: **Coordinator, Search Committee, Health Program, MacArthur Foundation, 140 South Dearborn Street, Suite 700, Chicago, IL 60603.**

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POSTDOCTORAL RESEARCH POSITIONS

Postdoctoral positions are available for individuals to participate in ongoing research in the Anesthesiology Research Unit, Washington University School of Medicine. Traineeships are available in the laboratories of Alex Evers, Chris Lingle, David Russell, Joe Steinbach, Richard Hotchkiss, and Walter Boyle. Research emphasis is on the areas of neuronal pattern generation, function and modulation of ion channels, regulation of intracellular calcium, phosphoinositide metabolism, and vascular smooth muscle physiology. Please send curriculum vitae, proposed area of research interest, and the names of three references to one of the above proposed sponsoring investigators at: **Anesthesiology Research Unit, Washington University School of Medicine, Box 8054, 660 South Euclid Avenue, St. Louis, MO 63110.**

HISTOLOGY RESEARCH ASSOCIATE

A private nonprofit research institute is seeking a histologist to perform immunohistochemistry and in situ hybridization studies of the newly discovered intraovarian polypeptide regulators. Extensive experience in tissue sectioning and hybridization with antibody and cRNA probes is necessary. Initial salary, equipment, and supplies will be provided with the understanding that the candidate is expected to direct his or her own research in collaboration with other department members and attempt to secure independent funding through granting agencies. If interested, please send curriculum vitae and names of at least three references to: **Dr. Nicholas Ling, Ph.D., Head, Department of Molecular Endocrinology, The Whittier Institute for Diabetes and Endocrinology, 9894 Genesee Avenue, La Jolla, CA 92037.**

RESEARCH IN RESPIRATORY MECHANICS

The University of Calgary, Faculty of Medicine, invites applications for a full-time academic position at the **ASSOCIATE PROFESSOR** level or higher, as a biophysicist working in the field of lung, chest wall, and muscle mechanics. Qualifications include a Ph.D. or an M.D. with equivalent training in physiology, biophysics, or bioengineering. Experience in applying force distribution concepts, finite element analysis, and wave speed analysis to the respiratory system is desirable. Background involving both bioengineering and clinical interactions is important. Teaching experience in physiology at graduate and undergraduate levels is essential.

Funding for the position will be through a successful application to the Alberta Heritage Foundation for Medical Research and/or the Medical Research Council of Canada.

Applications, including curriculum vitae and the names and addresses of three referees, should be submitted by 30 April 1990 to:

**Dr. John E. Remmers
Faculty of Medicine
The University of Calgary
3330 Hospital Drive, N.W.
Calgary, Alberta T2N 4N1, Canada**

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities, and people with disabilities.

POSITIONS OPEN

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE (USDA ARS)

RESEARCH CHEMIST. GS-13/14/15. Dairy Management Unit, Logan, Utah. ARS is seeking a dairy colloidal chemist to: (i) examine milk composition and factors that may effect the stability of emulsions and milk protein; (ii) study the conformation of proteins on the surfaces of emulsions; (iii) examine effects of homogenization on protein structure, especially casein micelles; and (iv) study the behavior of proteins in heated casein micelles. *Candidates must be U.S. citizens and have a Ph.D. or equivalent doctoral degree in physical chemistry, food chemistry, or closely related fields plus:* (i) knowledge of mechanisms of reaction and behavior of emulsions and casein micelles during milk processing; (ii) knowledge of dairy food processing on milk protein structure; (iii) knowledge of surfactants and/or colloidal chemistry; (iv) knowledge of Ca ion concentration effects on emulsions and milk casein structure and function; (v) skill in HPLC/FPLC amino acid analysis; and (vi) skill in light scattering devices (UV/VIS, fluorescence and infrared). Salary is commensurate with experience (\$55,381 to \$63,164). For information on the research program and/or position, contact: **Dr. David H. Clark, telephone: 801-750-3297.** For information on application procedures/forms, contact: **Ms. Julia Murchinson, telephone: 301-344-3138.** Applications must be received by 30 March 1990. Applications in response to this advertisement should be marked **RB-9W-072-OW-002** and addressed to:

**USDA, Agricultural Research Service
Personnel Operations Branch
Western Section, W09, Room 318
6305 Ivy Lane
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RESEARCH AND DEVELOPMENT CHEMIST

Conduct research, analysis, and experimentation on dyes, textile chemicals, and specialty chemicals, primarily for research and development, but also for quality control, quantitative and qualitative analysis, and improvement of analytical techniques, methodologies, and procedures. Devise new instruments and develop analytical techniques and methods for solution of technical problems in research and production. Use instrumentation and wet methods, as well as chromatography and spectroscopy, to analyze organic and inorganic compounds. Conduct research for the purpose of analyzing chemicals and determining physical properties of dyes and chemicals. Requires: Ph.D. degree in analytical chemistry, including graduate level courses in advanced inorganic chemistry, advanced organic chemistry, and inorganic kinetics. Also requires at least 2 years of research experience with inorganic solution kinetics, at least 2 years of research experience with instrumental and chemical methods of analysis, and at least 1 year of research experience with the design of analytical instrumentation for kinetics measurement of inorganic and organic compounds. Salary: \$39,000 per year; 40+ hours per week, 8:00 a.m. to 5:00 p.m., Monday to Friday. Apply to: **Job Service, 500 West Trade Street, Charlotte, NC 28202** or nearest Job Service Office. Reference: **Job Order Number 2694196.**

RESEARCH SCIENTIST

Promega Corporation, a high-growth biotechnology company in Madison, Wisconsin, involved in the development of molecular biology products for research and industry, is seeking an individual for a position in the Research Products, Research and Development Group.

All applicants should have a Ph.D. in biochemistry or genetics or related discipline and their area of research should involve higher eukaryotes. They should have extensive experience in DNA sequencing (ss and ds) and an interest in developing methodologies and reagents for automated and manual sequencing systems. Expertise in nucleic acid hybridization and standard molecular biology techniques is a basic requirement for this position.

Promega offers a competitive salary and comprehensive benefits. To apply, forward a résumé with cover letter to:

**Promega Corporation
Human Resources (Box 5)
2800 Woods Hollow Road
Madison, WI 53711-5399**

Promega Corporation is an Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSOCIATE. To study cytokine regulation of the hypothalamic-pituitary-adrenal-axis during stress. Experience in small animal surgery, RIA, ELISA, or HPLC. Knowledge of molecular biology or tissue culture helpful. Joint appointment at Shriners Burns Institute, Massachusetts General Hospital, and Harvard Medical School. Send résumé to: **Hans H. Bode, M.D., 51 Blossom Street, Boston, MA 02114.** *Equal Opportunity Employer.*

RESEARCH MOLECULAR BIOLOGIST. Conduct molecular investigation of the role of homeobox-containing genes in DNA cloning and sequencing, RNA isolation, Northern blotting, and protein purification. Requirements: Ph.D. or equivalent in molecular biology or biochemistry and 2 years of experience in job offered. Forty hours per week, 9 a.m. to 5 p.m.; \$29,891 per year. Job site/interview: Martinez, California. Send résumés and ad to: **Job #NOF605, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 9 March 1990.

RESEARCH ASSOCIATE

Opportunity available to participate and develop independent program in research involving cell and molecular biology of extracellular matrix proteins. M.D. or Ph.D. required. Background in recombinant DNA and cell culture techniques necessary.

Send résumé to: **Nicholas A. Kefalides, M.D., Ph.D., Director, Connective Tissue Research Institute, University of Pennsylvania, University City Science Center, 3624 Market Street, Philadelphia, PA 19104.**

RESEARCH SCIENTIST. Evaluate the processing and modification of recombinant proteins produced in mammalian systems and other higher eukaryotic systems and the effect of such modification on biological activity. Direct independent research in the area of growth factor receptor interactions with an in-depth understanding of ligand receptor functions and signal transduction. Work on identification and cloning of new growth factors and/or receptors using technical expertise in molecular and cell biology. Ph.D. in molecular biology required, plus 2 years of experience in job offered or 2 years of postdoctoral research in eukaryotic post transcriptional gene regulations. Salary: \$47,000 per year. Job site and interview: Thousand Oaks, California. Send this ad and your résumé to: **Job #KV12602, P.O. Box 9560, Sacramento, CA 95823-0560**, not later than 10 March 1990.

RESEARCH SCIENTIST. Integrated optics and devices. Responsibility for establishing a research facility for fabricating and studying integrated optical devices and launching a research and development program leading to the application of optoelectronic integrated circuit technology to optical storage systems. Requires: Ph.D. in optics or related area with theoretical and experimental background in integrated optics (including fabrication, characterization, and numerical modeling of optical-guided wave devices), multilayer optical waveguide structures; electronics design and fabrication; experience with set-up and operation of deposition and processing facilities; working knowledge of clean-room processing environment; electronics design and fabrication experience and programming expertise in C and FORTRAN for computer-controlled data acquisition and analysis. Understanding of computer networks (especially fiber-optical) in terms of both physical and software protocol level also required. Forty hours per week; \$53,000 per year. Job and interview site: San Jose, CA. Send this ad and your résumé to: **Job #JW12376, P.O. Box 9560, Sacramento, CA 95823-0560** not later than 10 March 1990. *Equal Opportunity Employer.*

QUALITY ASSURANCE VIROLOGY TESTING COORDINATOR

Coordinate activity of quality assurance virology technicians and support staff to ensure timely completion of veterinary virus vaccines, product testing, test development, and reporting of results. This is a hands-on position with supervisory responsibility. Bachelor of science in life science, microbiology, or veterinary science; advanced degree preferred. Strong organizational skills required. Minimum of 2 years of experience in virus testing and cell culture. Previous supervisory experience preferred. Salary commensurate with experience. Send résumé to: **Coopers/Pitman-Moore, Inc., P.O. Box 419167, Kansas City, MO 64141.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS

Postdoctoral positions are available for molecular biologist, biochemist, or protein chemist to study structure and gene regulation of thyroid hormone nuclear receptors using genetic, biochemical, and physical methods. Send curriculum vitae to: **Dr. Sheue-yann Cheng, Laboratory of Molecular Biology, National Cancer Institute, NIH, Public Health Service, 9000 Rockville Pike, Building 37, Room 4B09, Bethesda, MD 20892.**

NIH is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW. To study molecular biological/biochemical questions in eye lens proteolysis as it is affected by aging and nutrition. Available June of 1990. Please send résumé and three letters of reference to: **Dr. Allen Taylor, USDA Human Nutrition Research Center on Aging at Tufts University, 711 Washington Street, Boston, MA 02111.** An Affirmative Action/Equal Opportunity Employer.

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara Foundation, a nonprofit organization within the Hayashibara Group, announces a fellowship program. Fellowships will be taken up at the Fujisaki Cell Center, which is devoted to basic and applied research related to the problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. No fixed deadline for application is set throughout the year. The awards are for high quality research work in one of three categories:

- Fundamental leukemia-lymphoma research
- Cytokine-lymphokine research
- Hematopoietic cell lines

Qualified persons who hold a Ph.D., M.D., or equivalent qualifications should request additional information and application forms from: **Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.**

FELLOWSHIPS

POSTDOCTORAL FELLOW. A position is available immediately to participate in studies on biological, pharmacological, and biochemical aspects of antifertility agents with emphasis on steroids and other related compounds. Applicants must have a Ph.D. or M.D. degree. Experience in laboratory animal surgical techniques and hands-on experience in RIA and RRA are desired. Send curriculum vitae and the names and addresses of three references to: **Dr. C. C. Chang, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.**

POSTDOCTORAL FELLOW. Position open to study systemic and renal hemodynamics and changes in vasoactive humoral substances before and after altered divalent ion nutrition. Ph.D. in physiology or pharmacology required. Position is for 2 years of support; salary is negotiable. Closing date: 1 May 1990. Submit curriculum vitae to: **Edward T. Zawada, Jr., M.D., Professor and Chairman, University of South Dakota, School of Medicine, P.O. Box 5046, Sioux Falls, SD 57117-5046.** Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWS. The Westinghouse Savannah River Company has immediate openings for two postdoctoral fellows in the Environmental Sciences Section of the Savannah River Laboratory.

These openings are for 1-year contracts, which are renewable for one additional year. Minimum requirements: Ph.D. in soil microbiology or microbial ecology. Preference will be given to those with experience in any of the following: molecular biology, bioremediation, bioreactor design, studies in contaminated groundwaters or soils, and/or biodegradation of xenobiotics. Candidates must qualify as Oak Ridge Associated Universities postdoctoral fellow, curriculum vitae, reprints, and names, addresses, and telephone numbers of three reference.

Applicant must be able to obtain a U.S. Department of Energy "Q" clearance. *U.S. citizenship required.*

Salary is commensurate with your training and experience. For confidential consideration, please send résumé and salary history to: **Dr. Terry C. Hazen, Environmental Sciences Section, Savannah River Laboratory, Westinghouse Savannah River Company, Aiken, SC 29808-0001.** An Equal Opportunity Employer.

FELLOWSHIPS

THE BLAUSTEIN INTERNATIONAL CENTER FOR DESERT STUDIES

POSTDOCTORAL FELLOWSHIPS are available for basic or applied research in the physical, life, and social sciences in arid zones for the academic year 1990-1991. Deadline for application is 15 April 1990. Send curriculum vitae, letter describing research interests, and have three letters of reference forwarded to: **Professor Joseph Gale, The Jacob Blaustein Institute for Desert Research, Ben-Gurion University of the Negev, Sede Boker Campus, 84990, Israel. FAX: 972-57-555-058. Telex: 5280 DIRBGII.**

SITUATIONS WANTED

BIOCHEMIST. Industrial, Ph.D., 12 years of clinical reagent R&D/process support, seeks Mid-Atlantic biotechnology manufacturing process development or support position. Box 18, SCIENCE.

BIOCHEMIST. Publications, patents. Experience: water displacing coatings, protein-polymer grafts, artificial skin to deliver growth factors. Interested in management position. Box 16, SCIENCE.

ENVIRONMENTAL STUDIES, M.S. Experience in environmental controls. Training in policy, resource management, and analysis. Seeks position in industry or academia. William Bower, 323 East Maplewood Estates, Scott Depot, WV 25560. Telephone: 304-757-7883.

IMMUNOLOGIST, Ph.D. (1983). Cellular/immunochemical techniques, hybridomas, idiotype, DNA/RNA sequencing, PCR. Publications. Seeks research or research/teaching position. Box 20, SCIENCE.

MAMMALOGIST, Ph.D. Community ecology, systematics, conservation biology, statistics, museum curation. Field experience: Southwest; Brazil. Three years university teaching. Grants. Box 17, SCIENCE.

SCIENTIST/ENTREPRENEUR. Senior vice president, Princeton think tank; vice president, R&D, pharmaceuticals; professorship, Ivy medical school. Seeks university administration, corporate, ventures. Box 12, SCIENCE.

Career Opportunities in Japan

The Corporate Research Division of The Procter & Gamble Company has career opportunities for Japanese scientists who have a Ph.D. or postdoctoral training in protein chemistry, molecular biology, cell biology, or a related area. Experience in the use of recombinant DNA techniques and modern methods of protein separation and characterization is critically important.

Applicants must be bilingual (Japanese/English). They will begin their careers in Cincinnati, Ohio at our Miami Valley Laboratories prior to transfer to Japan, where we are building a new technical center on Rokko Island, Kobe. Completion of the center is anticipated in early 1993.

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Fortune magazine. In Japan, we are engaged in the research, development, manufacture, and sale of consumer products in the health and beauty care, paper, and laundry cleaning product categories. The decision to establish a technical center in Kobe recognizes Japan as a major source of product and packaging technology across these varied product categories. This provides an outstanding opportunity for personal and professional growth, combined with a highly competitive salary and benefits package.

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MEETINGS

FOURTH INTERNATIONAL CONFERENCE ON THE CELL AND MOLECULAR BIOLOGY OF *CHLAMYDOMONAS*

7 to 12 April 1990 at Lake Lawn Lodge in Delavan, Wisconsin. Sessions will focus on:

- Genetic transformation
- Chloroplast and mitochondrial molecular biology
- Genetics and regulation of nuclear gene expression
- Cytoskeleton and motility
- Mating and signalling
- Photosynthesis
- Biochemical adaptations and responses to the environment
- Cell cycle organization and circadian rhythms
- Molecular evolution

The registration deadline is 7 March 1990. For further information and registration and abstracted forms, contact: *Chlamydomonas* Meeting Coordinator, 1103 East 57th Street, Chicago, IL 60637. Telephone: 312-702-8917. FAX: 312-702-9270.

INTERNATIONAL CONFERENCE MOLECULAR GENETICS OF SEX DETERMINATION

30 APRIL TO 2 MAY 1990
HOTEL MERIDIEN, 614 CANAL STREET
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Sessions on genetics of *Zfy*, *Sxr*, *Hya*, male and female pseudohermaphroditism, androgen insensitivity, müllerian development and intersexuality, XX male syndrome and true hermaphroditism, gonadal dysgenesis, genetics of the Y chromosome in mouse and human, X-inactivation, etc.

Speakers include M. New, M. Zachmann, L. Pinsky, N. Joso, A. de la Chapelle, J. L. Simpson, C. Bishop, U. Müller, N. Affara, H. S. Chandra, M. Fellous, U. Wolf, A. McLaren, C. Nagamine.

Registration open. Contact: Dr. Stephen Wachtel, CDD SB-10, University of Tennessee, Memphis, 711 Jefferson Avenue, Memphis, TN 38105. Telephone: 901-577-8455.

COURSES AND TRAINING

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NIH-supported predoctoral and postdoctoral training opportunities with an interdepartmental, multidisciplinary orientation. Research areas include: glycoprotein synthesis and role in implantation (Carson), cell-cell interactions and androgen-regulated gene expression (Chung), steroid hormones and carcinogenesis (Jones), neuroendocrine control of gonadal function in primates (Knobil), protein transitions in spermatogenesis and reproductive toxicology (Meistrich), control of placental blood flow and fetal cardiac output (Parisi), molecular mechanisms controlling spermatogenesis and uterine relaxation (Sanborn), cell interactions during fertilization and early development (Shur), Sertoli cell function and regulation of testicular functions (Steinberger), chemistry of glycoprotein hormones and inhibin (Ward). *Limited to U.S. citizens and permanent residents.* Send inquiries to: Dr. B. Sanborn, Director, Training Program in Mammalian Reproduction, Department of Biochemistry and Molecular Biology, University of Texas Medical School at Houston, P.O. Box 20708, Houston, TX 77225.

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The Cancer Research Institute invites suggestions of topics for its ongoing Workshop Series. Proposed subjects should be issues at the cutting edge of laboratory or clinical immunology or cancer immunology.

Cancer Research Institute workshops offer small groups of scientists (20-30 people) the opportunity to spend 2 days exploring emerging findings in immunological research in a highly interactive, informal setting. Past workshops have served to crystallize directions for future research in rapidly developing areas and have led to new collaborations for further study.

The workshops are typically held 3-5 times a year in New York City, and the Institute pays travel and living expenses for invited speakers.

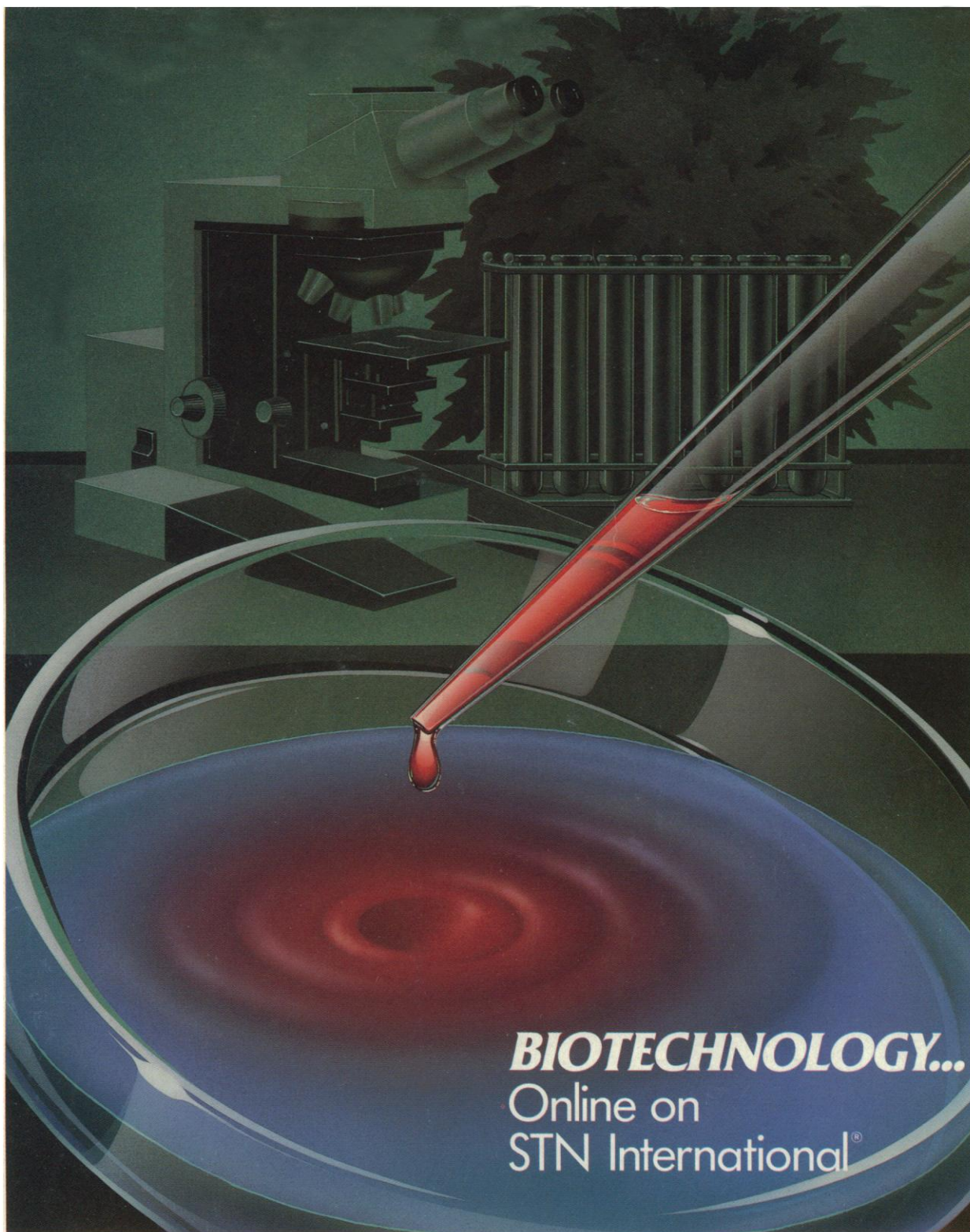
Please submit proposed topics to:

Dr. Jill O'Donnell-Tormey
Cancer Research Institute
133 East 58th Street
New York, New York 10022
212-688-7515 1-800-99CANCER

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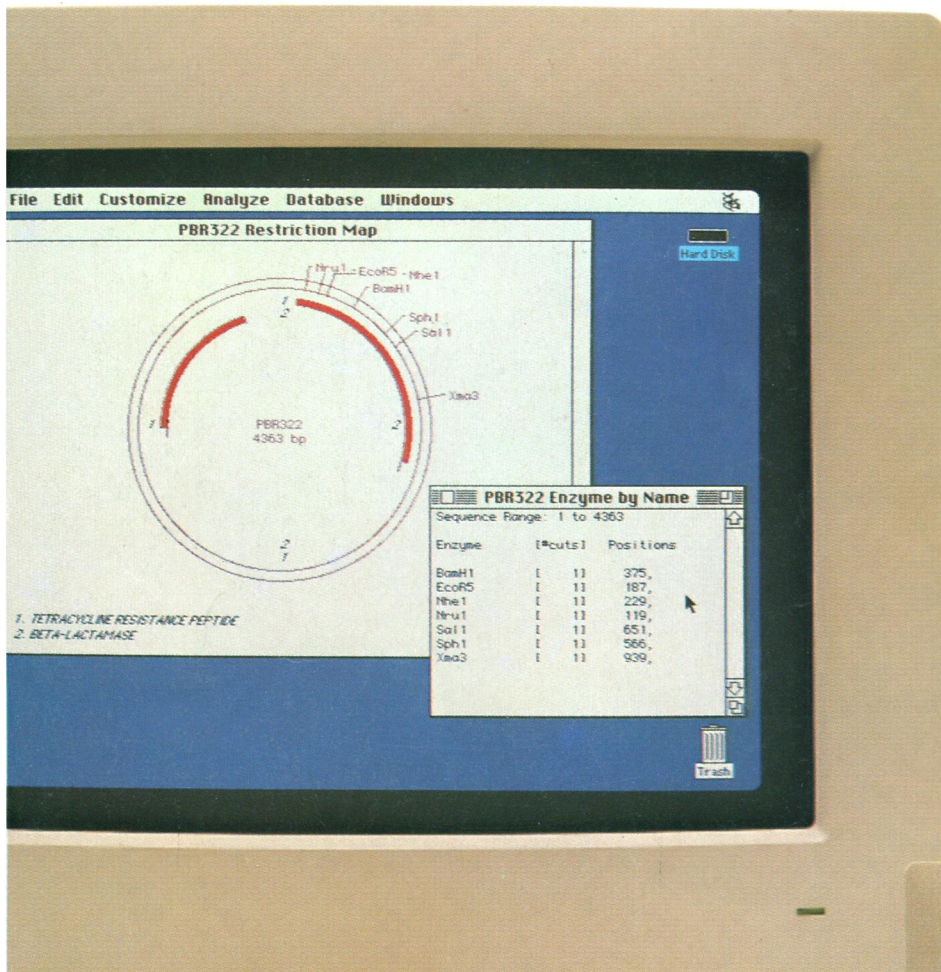
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