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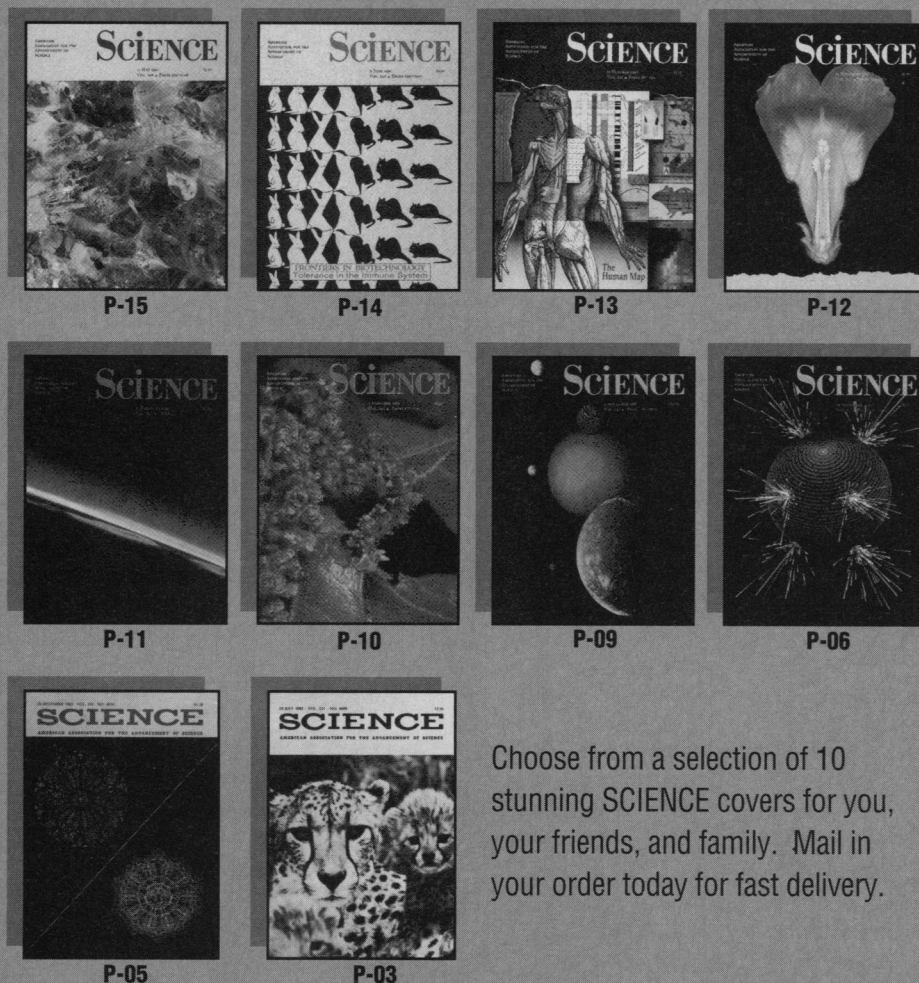
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POSITIONS OPEN

ASSISTANT PROFESSOR, BIOLOGY. Applications are invited for three tenure-track faculty positions beginning August 1991. The positions are: (1) **MICROBIAL PHYSIOLOGIST/GENETICIST**, (2) **PARASITOLOGIST** with emphasis in terrestrial animal parasitology, and (3) **MOLECULAR IMMUNOLOGIST**. Applicants must be bilingual in Spanish and English and have a Ph.D. in their respective area. Postdoctoral experience is desirable. Successful candidates will participate in the teaching program, which includes general biology and undergraduate and graduate courses in their area, and establish and maintain an independent research program. Send curriculum vitae, three letters of reference, and recent publications to: **Dr. Mildred Chaparro, Department of Biology, The University of Puerto Rico (UPR)-Mayaguez, Mayaguez, P.R. 00708.** UPR is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR RESEARCH NEUROLOGY

Cellular immunologist with interest in pathogenesis of viral infections of CNS. Funding available to direct established project in NINDS Program grant on immune aspects of viral-induced demyelination. Part of a molecular-oriented multidisciplinary group of investigators. Opportunities to develop own research interests as well. Application, including curriculum vitae, list of publications, and the names of two referees, should be sent to: **Leslie P. Weiner, M.D., University of Southern California (USC) School of Medicine, 2025 Zonal Avenue, MCH 142, Los Angeles, CA 90033.**

USC is an Affirmative Action/Equal Opportunity Employer, M/F/H, and we encourage applications from minorities.

ASSISTANT PROFESSOR, PHARMACOLOGY AND PHYSIOLOGY. The Department of Pharmacology/Physiology in the School of Dental Medicine of the University of Pittsburgh seeks applicants for a tenure-track position at the level of assistant professor. Preference will be given to candidates with training in molecular pharmacology, signal transduction, or second messenger systems (D.M.D./Ph.D. or Ph.D. with 2 to 3 years of postdoctoral experience). Individuals with expertise in other pharmacologic disciplines will also be considered. Applicants should be capable of developing a funded research program and be committed to teaching of graduate and undergraduate students. To apply, send curriculum vitae and the names of three references to: **Dr. Regis R. Vollmer, Department of Pharmacology/Physiology, School of Dental Medicine, University of Pittsburgh, Pittsburgh, PA 15261.** Deadline for application is 1 July 1991. *The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL MICROBIOLOGIST. Tenure-track ASSISTANT PROFESSORSHIP available in the Department of Biology and Microbiology at South Dakota State University. Ph.D. in microbiology or related area with emphasis in environmental microbiology is required, teaching experience is desirable, postdoctoral experience and experience with anaerobes is preferred. Contact: **Dr. Helen Westfall, Chair, Search Committee, Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007.** Telephone: 605-688-4119 or 5503. Applications accepted until 24 June 1991 or until position is filled. *Women and minorities are encouraged to apply. Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR

Applications invited for position in Department of Pathology and Laboratory Medicine, East Carolina University School of Medicine. Applicants must hold Ph.D. or equivalent plus at least 4 years of related postdoctoral experience. Requirements include extensive experience in analysis of mononuclear phagocyte function and differentiation. Demonstrable expertise in culture of hemopoietic progenitor cells, analysis of eicosanoid synthesis, cell surface markers, and in vivo techniques essential. Graduate level teaching required. Salary commensurate with experience. Please send curriculum vitae and names of at least three references to: **Alvin Volkman, M.D., D.Phil., Department of Pathology and Laboratory Medicine, East Carolina University School of Medicine, Greenville, NC 27858.** Applications should be received by 7 July 1991. *An Equal Opportunity/Affirmative Action University. Applicants must comply with provisions of the immigration reform and control act.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF TOXICOLOGY DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY INDIANA UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for a tenure-track assistant professorship in toxicology available immediately in the Department of Pharmacology and Toxicology at Indiana University School of Medicine. Applicants should possess a Ph.D. in toxicology and have at least 3 years of experience in forensic and clinical toxicology. The successful candidate will report to the director of toxicology and will be expected to oversee the daily management of a clinical and forensic toxicology laboratory, share in the teaching of graduate and medical students, and participate in the development of an extramurally funded research program in environmental toxicology. Salary is commensurate with experience. Send curriculum vitae and three letters of recommendation by 15 June 1991 to: **Dr. Joseph DiMico, Chair, Search and Screen Committee, Department of Pharmacology and Toxicology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120.**

Indiana University is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE PROFESSOR. The Pennington Biomedical Research Center (PBRC), a division of the Louisiana State University (LSU) System in Baton Rouge, Louisiana, is seeking an associate professor to conduct independent research on the genetics of obesity. Must have Ph.D., M.D., or D.V.M. and 4 years of experience in obesity research. Ability to obtain nationally competitive research funding is desired. Submit application letter and curriculum vitae to: **Dr. Donna Ryan, Associate Executive Director, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808.** Target closing date is 19 June 1991. *LSU/PBRC is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR. Optometric research on accommodation, convergence, and young-adult-onset myopia. Advance accommodation and convergence servo modeling by determining the contribution of tonic accommodation and tonic vergence to synergistic interactions of accommodation and vergence. Determine the effect of individual differences on resting tonus, accommodation vergence interactions, and the correlation between the change of ocular optical components and the development of the myopia of longitudinally studying the role of sustained use of the eyes at near in the etiology of environmentally produced myopia. Investigate the role of plasticity of tonic accommodation and vergence. Determine the correlation between individual plasticity and development of myopia. Also teach a graduate course in the areas of refractive anomalies, optics, psychophysics, and accommodation-convergence interactions. Salary: \$42,000 per year, 40-hour work week, no overtime. Requirements: Must have Ph.D. degree in applied physiology, 1 year of experience of research in accommodation and convergence in human vision, published at least three scholarly papers in scientific journals, and knowledge of accommodation and convergence in human vision. Inquire at: **Texas Employment Commission, Houston, Texas. Job Order #5757289.** *Ad paid for by Equal Employment Opportunity Employer.*

MICROBIOLOGY SCIENTIST

An opportunity exists for a Ph.D. scientist with 3 to 5 years of postdoctoral training in the use of molecular biological techniques applied to human bacterial pathogens.

The appointment is hospital-based and funded and carries a cross-appointment in the Department of Microbiology and Immunology at the University of Western Ontario at the appropriate level. The candidate is expected to establish an independent research program based on extramural funding as well as to interact with a multidisciplinary team of clinicians and scientists in the study of human sepsis.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applications should be directed to: **Dr. J. J. Gilbert, Vice President Research, Victoria Hospital Corporation, 375 South Street, London, Ontario, Canada N6A 4G5.**

POSITIONS OPEN

MOLECULAR BIOLOGIST PACIFIC NORTHWEST RESEARCH FOUNDATION SEATTLE, WASHINGTON

Applications are invited for a research staff position in a multidisciplinary institution in the category equivalent to the **ASSOCIATE or PROFESSOR** level. Housed in a new 45,000-square-foot facility in Seattle, research programs include immunology and limb transplantation, biochemical oncology, environmental biochemistry, membrane biochemistry, biochemistry, AIDS, feline LV referral clinic and prostate ultrasound imaging. Candidates must have demonstrated exceptional research ability in dynamic areas of molecular biology with an independent research program as well as current peer-reviewed grants. Preference will be given to individuals who have recognized expertise and commitment in the area of molecular biology, more specifically that related to cancer and/or genetic disorders. The Pacific Northwest Research Foundation provides competitive salaries and benefits and does not have an academic affiliation. The Pacific Northwest Research Foundation offers an opportunity for established scientists to pursue independent research. Interested qualified applicants should send complete curriculum vitae, a brief statement of research interests, and the names of three recent references to: **William B. Hutchinson, M.D., Director, Pacific Northwest Research Foundation, 720 Broadway, Seattle, WA 98122. Telephone: 206-726-1210. FAX: 206-726-1217. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH PROFESSOR. Applicants should have a Ph.D. or M.D. and expertise in data management as well as qualitative and quantitative analysis of brain images. Significant experience in research administration with a strong background in organizing, writing, and management of research grants and contracts is required. The successful applicant is expected to assist in the continued development and implementation of our extensive program in arteriovenous malformations and radiosurgery.

Send curriculum vitae and references to:

**John A. Jane, M.D., Ph.D.
David D. Weaver Professor and Chairman
Department of Neurosurgery, Box 212
University of Virginia Health Sciences Center
Charlottesville, VA 22908**

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SAFETY MANAGER

The Hong Kong University of Science and Technology (HKUST), a major new university which will begin classes in October 1991, invites applications for the position of safety manager. This newly established position will have responsibility for developing and implementing a full range of policies, practices, and procedures relating to the environmental health and safety for the university. Candidates must have a degree in environmental health or science, or other closely related discipline and several years of experience in the administration of environmental activities in an academic institution, industry, or government. Salary will be in the range between US\$55,769 and US\$74,915 per annum and will be commensurate with experience. Generous fringe benefits including medical and dental benefits, annual leave, air travel, and children's education allowances are provided. Housing is also provided at a charge of 7.5% of salary. Initial appointment will be on a 3-year contract, which is renewable subject to mutual agreement. A gratuity of an amount 25% of the total basic salary drawn will be payable upon successful completion of contract. Letters of interest and résumés should be submitted to: **HKUST Safety Manager Search, Duke University Medical Center, DUMC Box 3914, Durham, NC 27710.**

MATH/SCIENCE TEACHER/SPECIALISTS. Join a Math/Science Center team to develop and implement a model Project 2061 curriculum for talented secondary students. The Battle Creek Area Math/Science Center is seeking staff with a master's degree in a scientific discipline and knowledgeable of current research techniques. Ideal candidates will be positive and team-oriented with excellent communication skills. Applications due by 14 June 1991. Start date: 22 July 1991. For information, call or send curriculum vitae to: **Dr. Terry E. Parks, 354 North 27th Street, Battle Creek, MI 49015. Telephone: 616-965-9440. The Battle Creek Public Schools is an Equal Opportunity Employer.**

POSITIONS OPEN

CEDAR CREST COLLEGE DIRECTOR GENETIC ENGINEERING PROGRAM

Tenure-track position, assistant professor, starting September 1991. Ph.D. with teaching/research experience in recombinant DNA and cell culture technology. Successful candidate will direct undergraduate program in biotechnology, teach related courses, and supervise undergraduate research. Salary competitive. Applications accepted through 1 July 1991 or until position filled. Submit curriculum vitae, statement of teaching philosophy, experience, and research interests, transcripts, and three letters of reference to: **Dr. Brian S. Misanko, Chair, Department of Biology, Cedar Crest College, 100 College Drive, Allentown, PA 18104-6196. Equal Opportunity Employer.**

DIRECTOR. The Virginia Museum of Natural History (VMNH) is seeking an energetic, creative leader to administer a statewide program of research, collections management, and education and traveling exhibits outreach in the natural sciences. Experience in public relations and private funds development is also required. The VMNH is an agency of the Commonwealth of Virginia, with a biennial budget in excess of \$4.2 million. Salary range: \$52,000 to \$80,700. Applications will be reviewed beginning 29 June 1991 and will be accepted until the position is filled. Mail résumé to: **Chair, Search Committee, Virginia Museum of Natural History, 1001 Douglas Avenue, Martinsville, VA 24112. Equal Employment Opportunity/Affirmative Action.**

DIRECTOR OF PEDIATRIC HEMATOLOGY/ONCOLOGY. The Department of Pediatrics of the University of Texas Medical Branch (UTMB) is seeking a research-oriented specialist to direct its Hematology/Oncology Division that has in place clinical and teaching programs. Applicants should have an active laboratory research program complementing the departmental NIH-funded Child Health Research Center directed by new chairman, Pearay L. Ogra, M.D. Submit letter of interest with curriculum vitae to: **J. Nevin Isenberg, M.D., Ph.D., Search Committee Head, Department of Pediatrics, UTMB, Galveston, TX 77550. UTMB is an Equal Opportunity/M/F/H/V/Affirmative Action Employer. UTMB only hires individuals authorized to work in the United States.**

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RESEARCH ASSOCIATE— FERMENTATION

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The Environmental Protection Agency's research laboratory at Corvallis, Oregon, is seeking applicants for two senior level positions:

• **CHIEF, ECOTOXICOLOGY BRANCH.** The Ecotoxicology Branch conducts a national research program of inhouse and extramural research on the effects of pesticides and genetically engineered organisms on the terrestrial environment, effects of various stressors on wildlife resources, the assessment of hazardous waste and Superfund sites, and ecological restoration.

• **CHIEF, TERRESTRIAL BRANCH.** The Terrestrial Branch conducts a national research program of inhouse and extramural research on the effects of climate change, ozone, air toxics, stratospheric ozone depletion, and other stressors on ecosystems.

Positions are at GM-15 level; salary range is \$61,643 to \$80,138 per annum depending on qualifications. *Candidate must be a U.S. citizen. An Equal Opportunity Employer.* To receive announcement and application form when formally announced, contact: **Pam Taylor, telephone: 503-757-4582, no later than 21 June 1991.**

HEAD, DEPARTMENT OF ENTOMOLOGY COLLEGE OF AGRICULTURE UNIVERSITY OF MINNESOTA

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Appointment, rank, and salary: Twelve-month, tenured faculty position. Initial appointment as department head is for 3 years. Reappointment as head is subject to faculty and administrative review. Salary commensurate with experience and qualifications. Starting date is 1 January 1992 or as soon thereafter as possible.

Qualifications: Must have an earned doctorate in entomology or equivalent; demonstrated achievement in research and teaching or extension, and minimum of 8 years of professional experience beyond doctorate. Desired qualifications include demonstrated success in administration, effective communication skills, evidence of leadership in the entomology profession, demonstrated ability to obtain extramural research funds, and understanding of the land grant system.

Application: Send letter of application, résumé, a separate one-page statement of career goals within the context of the position, and the names and addresses of five references to: **Dr. Frank Busta, Search Committee Chairman, University of Minnesota, Department of Food Science and Nutrition, 225 Food Science and Nutrition Building, 1334 Eckles Avenue, St. Paul, MN 55108-9999. Telephone: 612-624-1290.**

Application deadline: 30 September 1991.

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

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National Institute On Mental Health

This group, headed by Dr. David Jacobowitz, Chief of the Section of Histopharmacology, is studying a newly isolated brain specific calcium binding protein (Calretinin) which may be involved in buffering excess calcium and thereby provide neuroprotection from overexposure to excitatory amino acids. Experience in neuronal cell culture and a strong interest in brain neurobiology and experience with excitatory amino acids is desirable. Several projects are available utilizing immunocytochemistry, in situ hybridization, RIA,

two dimensional gel electrophoresis, and protein phosphorylation. Contact Dr. David Jacobowitz at 301-496-1956.

Interinstitute Medical Genetics Program

This program, accredited by the American Board of Medical Genetics, offers training in the areas of clinical and biochemical genetics and cytogenetics. This program is seeking individuals with an MD or MD/PhD who have completed at least two years of postgraduate training. This fellowship is 70% research, 30% clinical. A wide variety of exceptional research training opportunities exist in the institutes' many laboratories. Research topics include the epidemiology of cancer and other diseases, lysosomal storage diseases, the Fragile X Syndrome, gyrate atrophy and cystinosis research, the molecular biology of osteogenesis imperfecta, and DNA replication and recombination. Contact Dilys Parry, PhD at 301-496-4947.

For more information on these positions and others within NIH, call Dr. Michael Fordis, Director of the Office of Education at 301-496-2427. The future is coming. You can play a part in it.



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George L. Adams, M.D.
Chair, Ob-Gyn Search Committee
University of Minnesota Medical School
Box 396 UMHC
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Enzymologist

Candidates should have extensive laboratory experience in the isolation and purification of enzymes and be knowledgeable in enzyme kinetics and optimization of enzymatic activity. Responsibilities will include performing complex biochemical experiments directed at improved methods of enzymatic synthesis; conducting computer searches to locate technical solutions to assigned problems; and growth, screening, and harvesting of enzymes from bacterial clones. Position requires excellent communication skills and the ability to teach new laboratory methods to technical staff as well as keeping up-to-date on new developments in biochemical methodology through reading literature, attending lectures and national meetings and consulting other scientists. Must be experienced in use of and proper handling of radiochemicals. Requires a Ph.D in Enzymology (0 to 5 years' postdoctoral experience) with several publications in enzyme isolation, purification and characterization. Excellent bench skills also required.

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Candidates may submit resume to Janice Bubbers, Du Pont, 549 Albany St., Boston, MA 02118. An Equal Opportunity Employer.



TRANSPLANTATION IMMUNOLOGIST

We are seeking a Senior Research Scientist to develop a research program in cell and organ transplantation in the Applied Sciences Group at Baxter Healthcare Corporation.

Requirements for the position include a Ph.D. or M.D. with experience in the allogeneic/xenogeneic transplantation and/or immunologic tolerance. This individual should also have demonstrated skills in managing a research laboratory and technical staff. A background in Cellular and/or Molecular Immunology and experience with small animal models is desirable. This individual would be part of a group of 110 biochemists, immunologists, molecular biologists, virologists and materials scientists. The emphasis of research will be on mechanisms of graft rejection as it applies to the areas of kidney, pancreas, or bone marrow transplantation.

Salary will be in accordance with past experience. Experience should be equivalent to an Associate Professor level in an academic setting. The research facility is located in a rural setting in Round Lake, Illinois with reasonable access to Chicago. For consideration, send your resume and salary requirements to: **Baxter Healthcare Corporation, Attn: Human Resources, Route 120 and Wilson Road, WG1-1N, Round Lake, IL 60073.** Equal Opportunity Employer.

Baxter

DIRECTOR of PARASITOLOGY

The Basic Animal Science Research department at Merck and Co., Inc. in Rahway, New Jersey is seeking an experienced parasitologist for the position of Director of Parasitology.

The successful candidate will have a minimum of a Ph.D. degree in Parasitology or Entomology with a particular expertise in ectoparasitology. A working knowledge of helminthology and protozoology is also a prerequisite. An additional doctoral degree in veterinary medicine is desirable but not essential. He/she should have excellent verbal and written communication skills with a strong publication record. A good background in the management of a multidisciplinary approach to discovery of new active compounds for companion animal and food animal parasitocides would be very beneficial.

He/she will supervise directly 5 individuals in a team of some 20 scientists and support personnel and work in cooperation with several other scientists in human and animal health on a worldwide basis.

Salary and benefits are excellent and commensurate with experience. Interested applicants should submit a curriculum vitae to: **Susan R. Jenkins, R80-A3, Merck & Co., Inc., P.O. Box 2000, AD #79, Rahway, NJ 07065.**

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Merck & Co., Inc.

MOLECULAR BIOLOGIST

INTERESTED IN GENE EXPRESSION IN
MAMMALIAN CELLS

The Surgery Branch of the National Cancer Institute has an immediate opening for a Senior Investigator to join its studies of the gene therapy of human cancer. This position involves a responsibility for studies of the introduction of genes into human lymphocytes and tumor cells using retroviral mediated gene transduction. The position involves responsibility for conducting independent research programs in this area and the supervision of junior scientists. Prior postdoctoral experience in molecular biology is required. Interested candidates should send a Curriculum Vitae and two letters of reference. For further information and application procedures, please contact:

Steven A. Rosenberg, M.D., Ph.D.
Chief, Surgery Branch
National Cancer Institute
National Institutes of Health
Public Health Service
Building 10, Room 2B42
9000 Rockville Pike
Bethesda, Maryland 20892
(301) 496-4164



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Bristol-Myers Squibb Pharmaceutical Research Institute

Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our extensive research efforts in the areas of cardiovascular, infectious and metabolic diseases. This expansion has created exceptional opportunities for the following positions:

PH.D.-SENIOR SCIENTIST - Microbial Molecular Biology

This position will join the yeast Molecular Genetics Group in the Department of Microbial Molecular Biology. The particular emphasis will be on the expression of mammalian genes in the yeast, with the goal of developing natural products screens for discovery of novel therapeutic agents. A Ph.D. and 0-2 years of experience are required. A knowledge of recombinant DNA technology and yeast molecular biology is essential. Preference will be given to candidates with experience in the area of gene expression in *Schizosaccharomyces pombe*. **Dept. 219A.**

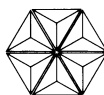
POST DOCTORAL - Cell Adhesion Molecules

This position exists within the Department of Metabolic Diseases and will participate in a vascular wall biology project. We are seeking a Ph.D. molecular/cellular biologist with research experience in cell adhesion molecules and the mechanisms of inflammation with an emphasis on leukocyte/endothelial cell interactions. Previous experience in plasmid construction and recombinant expression systems is also helpful. A Ph.D. in cellular or molecular biology, biochemistry or immunology is required. **Dept. 219B.**

BS/MS - Metabolic Diseases

Join a group studying the interactions of leukocytes with the blood vessel wall. This position requires experience in cell adhesion molecules and inflammation. Laboratory expertise in cloning and expression of eukaryotic genes in mammalian cells or in hybridoma construction and screening is also beneficial. A B.S. or M.S. in biology, immunology or biochemistry and 2 or more years of laboratory experience are required. **Dept. 219C.**

We offer a competitive salary and benefits package. For consideration, please forward your resume (including dept. code #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Department, P.O. Box 4000, Princeton, NJ 08543-4000.** An Equal Opportunity Employer.



Bristol-Myers Squibb Company

Opportunities with Monsanto Company

Explore this opportunity to join Monsanto Company,

a recognized world leader in plant science biotechnology. Our laboratories in Chesterfield, a suburb of St. Louis, provide state-of-the-art facilities for conducting research in plant biochemistry and molecular biology.

Monsanto is actively applying this research toward improving crop productivity, crop processing and food quality. We are expanding this effort and are hiring bright, innovative scientists with experience in the following areas:

FOOD SCIENCE

Our specific areas of interest include carbohydrates, lipids, proteins and fruit/vegetable ripening. You must have a Ph.D. or a M.S. degree in Food Sciences, a proven track record (at least three to five years of independent research) of high quality research in food chemistry/biochemistry and an interest in multi-disciplinary team research leading to commercialization of innovative food products.

MONOCOT TRANSFORMATION

Positions are available in the Crop Transformation group. You must have a B.S., M.S. or Ph.D. degree in plant physiology/botany/biochemistry, a proven track record (at least three to five years of experience with tissue culture and transformation of corn, wheat or other cereal crops) and an interest to be part of a multi-disciplinary team producing genetically improved cereal crops with novel traits.

Permanent staff and postdoctoral positions are available in both these areas. We offer a highly competitive salary and benefits/relocation package. Monsanto is an equal opportunity employer. Please send curriculum vitae, names of three references and a statement of your career and/or research interests to:

Mr. Alan Rowold
Director, Human Resources
Monsanto Company
St. Louis, MO 63167

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POSITIONS OPEN

PUBLIC INFORMATION COORDINATOR. For cancer research association in Philadelphia. Challenging position in public education and relations for professional with excellent writing and communications skills. Responsibilities include liaison with government officials, scientists, lay persons, and the media. Relevant experience in congressional activities, media operations, public relations, or fund-raising preferred. Knowledge of biomedical science helpful. Send résumé, writing sample, and desired salary range to: **Post Office Box 54335, Philadelphia, PA 19105.**

FACULTY POSITION. At Scripps Institution of Oceanography, Institute of Geophysics and Planetary Physics (IGPP).

Applications are invited for a tenure-track or tenured professorial appointment(s) in fluid dynamics (analytical, computational, experimental, or observational) applied to the Earth's atmosphere, oceans, or core. This appointment, as are all other faculty positions at IGPP, will be made jointly with the teaching department of Scripps or another department at the University of California (UC), San Diego.

Qualifications include a Ph.D. in one of the sciences (including engineering), demonstrated competence in original research (presumably through publication in refereed journals), and in teaching at both the undergraduate and graduate levels, which includes an appropriate command of both spoken and written English. Qualified applicants at all levels will be considered.

Salary will be commensurate with the individual's qualifications and UC pay scales. Please send applicants and nominations by 2 September 1991 to:

**Director
Institute of Geophysics and Planetary Physics, 0225
9500 Gilman Drive
Scripps Institution of Oceanography
La Jolla, CA 92093-0225**

Scripps Institution of Oceanography is an Equal Opportunity/Affirmative Action Employer.

**JOINT FACULTY POSITION
DEPARTMENTS OF OPHTHALMOLOGY
AND VISUAL SCIENCES
AND BIOCHEMISTRY
UNIVERSITY OF LOUISVILLE
SCHOOL OF MEDICINE**

Highly qualified persons are invited to apply for a joint tenure-track position in the Department of Ophthalmology and Visual Sciences and the Department of Biochemistry. The appointment will be at the **ASSOCIATE OR ASSISTANT PROFESSOR** level, depending on the qualifications of the appointee. Candidates must hold the Ph.D. or equivalent degree, have two or more years of postdoctoral training, and exhibit superior research productivity. We seek persons who are applying biochemical and molecular biological approaches to the eye. Areas of particular interest include: visual transduction/G proteins, growth factors/wound healing, extracellular matrix biosynthesis and regulation, molecular pharmacology of ocular receptors, or ocular membrane structure and function. The successful candidate is expected to develop and maintain an extramurally funded research program and to participate in Ph.D. programs in both departments. Curriculum vitae, statement of research goals, and addresses of four persons familiar with the applicant's research and teaching expertise should be submitted to: **Search Committee, Department of Biochemistry, University of Louisville, Louisville, KY 40292.** Applications will be accepted until 1 July 1991 or until a suitable candidate is identified. *The University of Louisville is an Affirmative Action/Equal Opportunity Employer.*

JUNIOR PATHOLOGIST-CLINICAL CHEMIST (CHEMICAL PATHOLOGIST). Apply knowledge of medicine and clinical chemistry in clinical pathology laboratory; measure enzymes for diagnostic purposes. Drug monitoring including high-pressure chromatography and liquid chromatography. Requirements: M.D. or equivalent; recent American Board certification in anatomic and clinical pathology; 4 years of residency in pathology including clinical chemistry with extensive background knowledge of theoretical and clinical enzymology, RIA, therapeutic drug monitoring, toxicology, high-pressure chromatography, and gas liquid chromatography. Endocrinology-serumgastrin analysis. Salary commensurate with background. Résumés to: **Box 5, SCIENCE Classified Advertising, 1333 H Street, N.W., Room 940, Washington, DC 20005.**

POSITIONS OPEN

The School of Public Affairs at the University of Maryland seeks a **FACULTY PERSON** with expertise concerning **ENVIRONMENTAL POLICY**. Rank open. One-year visitor, renewal as tenure/track possible. Preference given to persons with background in environmental science/ecology. Interested persons should send résumé to: **Drs. Peter G. Brown/Steve Fetter, School of Public Affairs, University of Maryland, College Park, MD 20742. Telephone: 301-405-6351. The University of Maryland is an Affirmative Action/Equal Opportunity Employer.**

UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE. Academic opportunity for obstetrics/gynecology specialist with a strong background in **MATERNAL/FETAL MEDICINE** and an interest in diabetic pregnancy. Experience with euglycemic clamp techniques and placental perfusion required. Send applications to: **Department of Obstetrics/Gynecology, Attention: S. Green, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267-0526. An Equal Opportunity/Affirmative Action Employer.**

PHYSIOLOGY. One-year position (1991 to 1992) with possibility of extension. Two courses per semester, human physiology for majors, anatomy and physiology for nonmajors, participation in general biology, advanced course in area of specialty, supervision of undergraduate and M.S. level research. Send résumé, transcripts, three references, and statement of teaching and research interests to: **Dr. Lee Christianson, Chair, Department of Biological Sciences, University of the Pacific, Stockton, CA 95211. Women and minority candidates are strongly encouraged to apply.**

POSTDOCTORAL POSITIONS (2). To study the mechanism and energetics of enzymatic catalysis employing novel transient-state kinetics [*J. Biol. Chem.* **263**, 11704 (1988)] and biophysical approaches [*Adv. in Enzymol.* **61**, 1 (1988)]. Experience or interest in the areas of enzyme-structure-function relationships desired. Send curriculum vitae to or call: **Dr. Harvey F. Fisher, University of Kansas at VA Medical Center, 4801 Linwood Boulevard, Kansas City, MO 64128. Telephone: 816-861-4700, ext. 3455. An Equal Opportunity/Affirmative Action Employer.**

TWO POSTDOCTORAL POSITIONS. Available 1 July 1991 to study genes and receptors involved in mosquito vitellogenesis. Experience in biochemistry and/or molecular biology required. Send curriculum vitae, reprints, and three letters of recommendations to: **Dr. Alexander S. Raikhel, Program in Genetics and Department of Entomology, S-134 Plant Biology Building, Michigan State University, East Lansing, MI 48824-1115. Telephone: 517-353-7144. FAX: 517-353-5598.**

**POSTDOCTORAL POSITION
MOLECULAR MEDICINE
UNIVERSITY OF PITTSBURGH**

A postdoctoral position is available to study molecular mechanisms governing progression of human malignant melanoma. Areas of interest include the regulation of growth factor receptors and analysis of genes expressed in primary and metastatic melanomas. Experience in molecular biology is preferred. Please send curriculum vitae including names of three references to:

**John M. Kirkwood, M.D.
Department of Medicine
Division of Medical Oncology
University of Pittsburgh
Biomedical Science Tower, E1057
Pittsburgh, PA 15261**

ASSOCIATE/POSTDOCTORAL POSITION

Applications are invited for a postdoctoral position in the laboratory of Dr. Charles A. Janeway, Jr. The primary area of study will be signal transduction T-cells with emphasis on tyrosine kinases and phosphatases. Qualified candidates should possess an M.D. or Ph.D. in a relevant discipline and have strong interest in some aspect of T-cell antigen recognition, activation, development, and autoimmunity. Experience in signal transduction required. Please forward your curriculum vitae and three letters of recommendation to: **Dr. Charles A. Janeway, Jr., Yale University Medical School, 310 Cedar Street FMB 410, New Haven, CT 06510. An Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION IN THEORETICAL CHEMISTRY. To study nonlinear dynamics of inelastic and reactive collisions of atoms and diatoms. Ph.D. required. Send curriculum vitae and letters of reference to: **Dr. Charles Jaffé, Department of Chemistry, West Virginia University, Morgantown, WV 26505.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Harvard Medical School: Pre- and posttranslational control of voltage-gated K^+ channels. Available immediately for Ph.D. in molecular biology/protein biochemistry: (i) to analyze factors that control expression of voltage-gated K^+ channels and (ii) to study posttranslational modifications of K^+ channels. Send curriculum vitae and three reference letters to: **Dr. Gideon Koren, Division of Cardiology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.** FAX: 617-732-5132.

POSTDOCTORAL POSITION. Available immediately to study a prohormone processing protease. Experience with protease purification and characterization is required. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Simon Kwok, Department of Biochemistry and Molecular Biology, University of Kansas Medical Center, Kansas City, KS 66103.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Available immediately to investigate the neurogenic activity in regulation of molluscan metamorphosis. Background in neurophysiology, using extracellular and intracellular techniques, required. Research targets small larvae (~200 μ m) and dissociated chemoreceptive cells. Send résumé and names and telephone numbers of three references to: **Dr. M. G. Hadfield, Kewalo Marine Laboratory, University of Hawaii, Honolulu, HI 96813.** Telephone: 808-539-7319; FAX: 808-599-4817. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Available immediately to study regulation of gene expression by cAMP [MCB 10, 3357 (1990)]. Applicant should be experienced in recombinant DNA techniques and/or protein chemistry. Send curriculum vitae, description of research interests, and three letters of reference to: **Patrick G. Quinn, Ph.D., Department of Cellular and Molecular Physiology, The Pennsylvania State University, College of Medicine, P.O. Box 850, Hershey, PA 17033.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Applications are invited for a postdoctoral scientist to join in the isolation and cloning of genes from *Heliothis* midguts which bind *Bacillus thuringiensis* insecticidal proteins. Insect midgut proteins are critical to the specificity and action of these toxins. The candidate will receive training in the isolation and purification of proteins as well as cDNA cloning of mRNA. The preferred candidate will have some experience in molecular biology. Please submit curriculum vitae, statement of research interest, and FAX numbers and addresses of three references to: **Dr. Mike Adang, University of Georgia, Department of Entomology, Athens, GA 30602.**

POSTDOCTORAL POSITION. Available to study intracellular signaling in B lymphocytes, focusing on relationships between the activity of protein kinases, the function of sequence-specific DNA binding proteins (NF-B, Jun/Fos, CREB), and the expression of immediate-early growth response genes. Background in biochemistry or molecular biology preferred. Send curriculum vitae and the names of three references to: **Thomas L. Rothstein, M.D., Ph.D., Room E-501, University Hospital, 75 East Newton Street, Boston, MA 02118.** Telephone: 617-638-7002; FAX: 617-638-7065. *An Equal Opportunity Employer.*

TRANSMEMBRANE SIGNALING

POSTDOCTORAL POSITION. Available fall 1991 to study receptor regulation of ion exchangers using molecular, pharmacological and physiological approaches. Project entails characterization of signaling mechanisms by structure-function analysis of mutant and chimeric receptors, biochemical identity of putative GTP-binding proteins, and kinetic analysis of receptor-regulated ion transport properties. Send curriculum vitae, description of research interests, and three letters of reference to: **Diane L. Barber, Ph.D., HSW 604, University of California, San Francisco, CA 94143-0512.**

BIOTECH UPDATE

Developments in immunological manipulation foster significant career opportunities.

American Cyanamid Company has a longstanding and highly successful commitment to the discovery and development of new products through innovative scientific research. Expansion of our research facilities in Princeton, NJ has created opportunities within the Immunology Group. We are seeking creative and highly motivated individuals to establish research programs in their respective fields, as well as integrate with established programs.

The successful individuals will join a productive group utilizing modern techniques in immunology to elucidate the host's response to pathogens, and immunological manipulation of the host's neuroendocrine system. An interest in integrating research projects with established programs in recombinant cytokines, cytokine receptors, and novel immunomodulators is desired.

RESEARCH IMMUNOLOGISTS (PhD)

PhDs in Immunology, Cell Biology or Molecular Immunology with 2-4 years' post-doctoral experience are sought. A productive scientific career as evidenced by a good publication record, quality references and a documented ability to implement independent scientific programs is required.

T Cell Epitopes and Antigen Presentation

You will establish an independent research program in the general area of T cell epitopes; and/or antigen presentation and processing. Familiarity with T cell hybridomas, antigen presentation, macrophage activation and vaccine design is required.

Cytokine Biology

You will establish an independent research program in cytokine biology, receptor transducing signals, or structure/function relationships of cytokines and receptors. Experience with molecular techniques, cytokine bioassays, and flow cytometry is desired.

RESEARCH ASSISTANT (BS/MS)

The successful candidate will assist senior scientists in various phases of research in the general field of antigen presentation and processing, cytokine biology, and/or T cell epitopes. A willingness to develop an independent research project and work in a team environment is necessary. A BS or MS in Immunology, Microbiology, Biology, Biochemistry or Chemistry as well as 2-4 years' experience with modern techniques in molecular biology, tissue culture, hybridomas, biochemistry and immunology are required.

Individuals with a desire to broaden their career opportunities and be recognized for a diversity of scientific achievements are encouraged to apply to: American Cyanamid Company, Personnel Department - MJD, Immunology Group, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer M/F/H/V.



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From our breakthrough work with erythromycin to our present HIV research, Abbott Laboratories has consistently developed innovative products to improve the quality of human life. Today, we continue to support our scientists with significant R&D funding, and a commitment to global success.

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Neuroscience Discovery

At Abbott's Neuroscience Research Division, we're increasing our efforts in identifying new drug candidates. As a result, we're now seeking scientists to join our multi-disciplinary project team focusing on therapeutic approaches.

Parkinson's Disease Research. We are seeking Research Assistants with a Bachelor's degree and up to 3 years experience in Pharmacology, Biology, Psychology or related disciplines, and Research Scientists with a PhD and at least 4 years postdoctoral experience in the same areas as above. Previous experience in behavioral testing, small animal surgery, histology and animal models of motor disorders would be advantageous. Reply to Job #7551A.

Appetite Suppression Research. We are seeking Research Assistants with a Bachelor's degree and up to 3 years experience in the study of ingestive behavior in rodents and other species. Previous experience with animals, stereotaxic and/or GI surgery and data management would be a plus as would a background in psychology. Reply to Job #7551B.

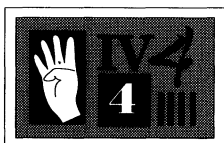
Alzheimer's Disease Research. We are seeking Research Assistants with a Bachelor's degree and up to 3 years experience in molecular biology, biochemistry, protein purification and cell biology. We are also seeking Research Scientists/Senior Research Scientists with a PhD and at least 2-4 years postdoctoral experience in the same areas as above. These positions will be involved in studying novel therapeutic approaches to the neurodegenerative process. A strong background in neurobiology is preferred. Reply to Job #7551C.

As a \$6 billion leader in the health care industry, Abbott offers an excellent salary and benefits package, including profit sharing and a stock retirement plan. We are located in an attractive suburban area approximately 30 miles north of Chicago. For consideration, please send a resume indicating appropriate Job # to: Patricia Handy, Corporate Placement, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064. Abbott is an Affirmative Action Employer.

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ASSOCIATE DIRECTOR IMMUNOLOGY

We are currently seeking an innovative scientist with a clear vision of future drug discovery opportunities in Immunology. Build upon our success with rapamycin to develop and manage new research efforts in immunosuppression, autoimmunity and osteoarthritis. Collaborate with other scientists within the Inflammation/Bone Metabolism Division as well as with external investigators.

Qualifications include a Ph.D. in Immunology, Pharmacology or other related medical science plus a minimum of 8 years of experience. The ideal candidate will have demonstrated success in the management of research groups and projects. Well-developed interpersonal and verbal communication skills and an attention to detail are required.

We offer an excellent compensation and benefits package. Our modern research laboratory is just minutes away from Princeton University and convenient to many other cultural, educational and leisure activities. Forward resume and salary requirements to: Wyeth-Ayerst Research, Personnel Manager, Position #370, CN 8000, Princeton, NJ 08543-8000. An Equal Opportunity Employer, M/F/H/V. Principals Only.



MIT

COMPARATIVE PATHOLOGIST DIVISION OF COMPARATIVE MEDICINE

To develop and take a leadership role in independent and/or collaborative research projects that will lead to external funding. Will provide diagnostic pathology support for the laboratory animal program at MIT and other Boston biomedical facilities and pathology support for research projects within the Division. Will also participate in the teaching and training of postdoctoral and graduate students in comparative medicine, pathology and toxicology.

Requirements: DVM with 2-4 years in a pathology training program or graduate school, and ACVP board certification or eligibility. Must possess demonstrated research ability with 2-4 years' experience in experimental pathology, and ability to generate research funding to provide a percentage of salary support.

Send 2 copies of curriculum vitae, referencing Job No. C91-006 to: Dr. James G. Fox, MIT, Division of Comparative Medicine, 37 Vassar St., Bldg. 45, Cambridge, MA 02139-4307.

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Massachusetts Institute of Technology

Scientist

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ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION U.S. PUBLIC HEALTH SERVICE

AIDS COORDINATOR

The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) has an immediate opening for a senior staff specialist who will serve as the Agency-level focal point for issues requiring extensive intra-agency coordination and negotiation between the various components comprising ADAMHA with regard to the AIDS program. Develops and implements ADAMHA program plans in this area, collaborating with other PHS, national, and local groups and offices, to promote a wide range of activities designed to contain the spread of HIV/AIDS disease and to contribute to the scientific base supporting HIV/AIDS health policy making and program management activities.

This position will be filled at the GS-15 level, with an annual salary range of \$61,643 to \$84,248. Physicians may be eligible for an additional Physicians' Comparability Allowance of from \$8,000 to \$20,000 annually. The position may also be filled through appointment in the PHS Commissioned Corps. Knowledge, skills, and abilities sought include: knowledge of issues, principles, and methodology associated with AIDS sufficient to plan, manage, and direct the program; knowledge of research methodology utilized to address the interrelationship of alcohol, drug abuse, and mental health issues and AIDS; knowledge of administrative practices and funding mechanisms; ability to plan, evaluate, and develop policy, program/project goals, and cooperative efforts; ability to establish effective working relationships with officials at all levels within and outside the Federal Government; and ability to develop and review written material which addresses scientific and policy issues. A Ph.D. or M.D. or graduate degree in a field/discipline related to mental health, substance abuse, or public health is desired.

This position is located in Rockville, Maryland and offers full Federal benefits. Relocation expenses may also be paid. U.S. Citizenship is required. Send Application for Federal Employment (SF-171)/resumes to: Mrs. Sue Rector, ADAMHA Personnel Office, Room 15C12, 5600 Fishers Lane, Rockville, MD 20857. Telephone inquiries may be made at (301) 443-5407. Applications must be postmarked by July 15, 1991.

ADAMHA IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN



UNIVERSITY OF MARYLAND
AT BALTIMORE
SCHOOL OF MEDICINE

POSTDOCTORAL POSITION CARDIAC PHYSIOLOGY

A postdoctoral position is available immediately for research in electrophysiology and excitation-contraction coupling of cardiac muscle. The research will involve the use of fluorescent ion-indicators, including imaging, and flash photolysis of caged compounds in single, voltage-clamped cardiac cells. Applicants should have a Ph.D. or M.D. and experience in electrophysiology. Interested individuals should send curriculum vitae and names of three references to: **Dr. W. Gil Wier or Dr. C. William Balke, Department of Physiology, University of Maryland at Baltimore, 660 West Redwood Street, Baltimore, MD 21201.**

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POSTDOCTORAL POSITIONS IN NEUROPHYSIOLOGY. Two positions available to study the in vivo and in vitro electrophysiology of rat midbrain dopaminergic neurons. Areas of research include the effects of CCK, dopamine receptor agonists, sigma/PCP ligands, and afferent inputs on these neurons. In vivo studies involve extracellular recording in conjunction with antidromic activation and drug administration. Intracellular and patch-clamp studies are performed in vitro. Qualifications include a recent Ph.D. in a neuroscience-related field, familiarity with electrophysiological methods and equipment, and experience with computer-based data acquisition and analysis. Send curriculum vitae and letters of reference to: **Drs. L. A. Chiodo and A. S. Freeman, Laboratory of Neurophysiology, Center for Cell Biology, Sinai Hospital, 6767 West Outer Drive, Detroit, MI 48235.**

POSTDOCTORAL POSITION PROTEIN CRYSTALLOGRAPHY

A postdoctoral position is available to study structure/function relationships in various lipolytic and glycosidic enzymes. The crystallographic laboratories of the MRC Group in Protein Structure and Function (University of Alberta) are superbly equipped (4-circle diffractometer, area detectors, Evans and Sutherland graphics system, Silicon Graphics 4D/340S server, and graphics workstations) and offer an excellent and challenging environment. Send and/or FAX detailed curriculum vitae and request three letters of reference to be directed to:

Dr. Z. S. Derewenda
Department of Biochemistry
University of Alberta
Edmonton, Alberta T6G 2H7, Canada
FAX: 403-492-0886

The University of Alberta is committed to the principle of Equity in Employment. The university encourages applications from aboriginal persons, disabled persons, members of visible minorities, and women.

POSTDOCTORAL RESEARCH FELLOWSHIPS AND ASSOCIATESHIPS. Applications are invited from molecular immunologists with expertise in molecular biology or protein chemistry. Depending on previous research productivity, the appointee(s) will conduct independent research or work on ongoing projects in relation to: (i) allergens and their epitopes, (ii) chemistry and biology of Fc receptors for IgE, (iii) modifications of antigens of immunotherapeutic tolerogens, (iv) molecular definition and mode of action of suppressor T cell factors.

The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal people, and persons with disabilities. Priority consideration will be given to Canadian citizens and permanent residents.

Please airmail or FAX full application, giving also names and addresses of two to three scientific referees, to: **Professor A. Schon, Director, MRC Group for Allergy Research, Department of Immunology, The University of Manitoba, 730 William Avenue, Winnipeg, Manitoba, R3E 0W3 Canada. FAX: 204-772-7924; telephone: 204-788-6518.** Potential European candidates may be interviewed in London on 7 and 8 July 1991.

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POSITIONS OPEN

TULANE MEDICAL CENTER
TULANE REGIONAL PRIMATE
RESEARCH CENTER
DEPARTMENT OF PARASITOLOGY

POSTDOCTORAL ASSOCIATE is sought to join a multidisciplinary group working on Lyme disease. The task is to develop molecular (PCR) and immunologic procedures to detect early *Borrelia burgdorferi* infections in a primate animal model to be established for this purpose. Please send curriculum vitae and names of three references by 30 June 1991 to: **Dr. Marlo T. Philipp, Head, Department of Parasitology, Tulane Primate Research Center, Covington, LA 70433.** *Tulane is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL or RESEARCH ASSOCIATE. The Department of Pathology at the University of Tennessee Medical Center has positions available which would be responsible for research-funded studies on the early events in signaling through the interferon- α receptor. Research goals include: (i) regulation of interferon- α stimulated gene expression; (ii) characterization, identification and purification of interferon- α receptor subunits; and (iii) role of protein kinase C in interferon- α signal transduction. Experience in molecular biology would be an asset. Very competitive salary and fringe benefits. Send curriculum vitae, research summary of interests, and three letters of reference to: **Dr. Lawrence Pfeffer, The University of Tennessee, College of Medicine, Department of Pathology, 800 Madison Avenue, Memphis, TN 38163.** *The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

MARINE SCIENCES RESEARCH ASSOCIATES. Multiyear positions, Ph.D. in a marine sciences-related discipline required. Research opportunities in biomineralization (coral reefs, coccolithophorids, brittle stars: proteins and nucleic acids), protein and peptide sequencing and synthesis, peptide antifreezes, predator-prey and seagrass ecology, chemical defenses and near-shore production, nutrient dynamics in coastal ecosystems. Stipends around \$28,000 annually. Send résumé, statement of interests, and names, addresses, and telephone numbers of three references to: **Chair, Department of Marine Sciences, LSCB 25, University of South Alabama, Mobile, AL 36688. Telephone: 205-460-7136. FAX: 205-460-7357.** Positions to be filled in fall/winter; applications accepted until positions filled. *The University of South Alabama is an Affirmative Action/Equal Opportunity Employer.*

PREDOCTORAL FELLOWSHIPS: MARINE SCIENCES. Multiyear fellowships, marine sciences Ph.D. program. Stipend: \$12,000 annually plus remission of tuition and out-of-state fees. Examples of research opportunities: biomineralization, seagrass/wetlands, protein structure and function, peptide antifreezes, fish populations, shelf processes, chemical defenses, nutrient dynamics. For more information, contact: **Chair, Department of Marine Sciences, LSCB 25, University of South Alabama, Mobile, AL 36688. Telephone: 205-460-7136. FAX: 205-460-7357.** *The University of South Alabama is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS, PLANT MOLECULAR VIROLOGY/BIOCHEMISTRY. Two positions are now open for the study of plus sense RNA plant viruses. Position A: This project will involve the isolation and characterization of a viral replicase complex from muskmelon plants infected with different strains of cucumber mosaic virus. The successful applicant will be expected to be familiar with standard cloning and molecular techniques with experience in biochemistry and enzymology being desirable. Requirements: A Ph.D. in biochemistry, molecular biology, or related field. Starting date: 1 September 1991. Position B: Projects include the cloning and characterization of potyviruses and their application toward coat protein-mediated cross protection in transgenic plants and basic research concerning tobacco mosaic virus replication and gene expression. Open until a suitable applicant is found. Funding is available for 3 years for each position. To apply, submit curriculum vitae, statement of research interests, and names of three references to: Position (A) **Dr. Marilyn Roossinck** or (B) **Dr. Brandt Cassidy, Samuel Roberts Noble Foundation, Plant Biology Division, P.O. Box 2180, Ardmore, OK 73402. Telephone: 405-223-5810; FAX: 405-221-7362.**

PROTEIN X-RAY CRYSTALLOGRAPHY

National Institute of Allergy
and Infectious Diseases

National Institutes of Health

A protein crystallography laboratory is being established with intramural AIDS funding to conduct an original research program and to interact with other scientists within the NIH intramural program. Applicants for director of the crystallography lab are being sought. Ph.D. or M.D. applicants should have a record of achievement in solving protein structures by X-ray crystallography. Salary and research resources will be commensurate with credentials and research experience.

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

John E. Coligan, Ph.D.
Chairman, Search Committee
BRB, NIAID, NIH
Building 4, Room 413
9000 Rockville Pike
Bethesda, MD 20892
Telephone: 301-496-8247
Facsimile: 301-402-0284

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KAROLINSKA INSTITUTE

POSTDOCTORAL RESEARCH ASSISTANT (THREE POSITIONS)

The Department of Medical Nutrition is a university department within the Karolinska Institute School of Medicine with a staff of some 100 persons (scientists, students, technical and administrative staff). The main research areas include: steroid hormone receptors (structure, regulation and gene expression), dioxin receptor (structure, function and gene expression), chemical hepatocarcinogenesis, molecular mechanism of growth hormone regulation, cytochrome P-450 in the central nervous system and environmental factors in the etiology of human cancer. The three postdoc positions relate to growth hormone mechanism of action, P-450 in the CNS and endocrine regulation of chemical hepatocarcinogenesis.

The position as postdoctoral research assistant is initially for two years with possibilities for extension up to four years. Preference is given to applicants with experience in molecular biology. Adequate laboratory resources will be provided.

Applications should be sent to Professor Jan-Åke Gustafsson, Dept. of Medical Nutrition, Karolinska Institute, Huddinge University Hospital, NOVUM, S-141 86 Huddinge, Sweden, together with CV, relevant publications and names of two referees.

Optical Microscopy and Imaging in the Biomedical Sciences

October 18-24, 1991



For 22 research scientists, physicians, postdoctoral trainees, and advanced graduate students in animal, plant, and medical sciences, with an understanding of the basic principles of optics.

This one-week course covers the fundamental theory and practical use of modern optical microscopy. Special attention will be given to different optical techniques and the newest photographic and video methods used in biological and biomedical research. A combination of lectures, laboratory exercises, demonstrations, and discussions will enable the participant to obtain and interpret microscope images of high quality, to perform quantitative optical measurements, and to produce photographic and video records for documentation and analysis of the optical images.

Application of the optical methods to live cells will be emphasized, and students are encouraged to bring their own specimens and to discuss individual research problems with the faculty.

Directors: Colin S. Izzard, State University of New York at Albany; and Nina Strömberg Allen, Wake Forest University.

Faculty: Kenneth A. Jacobson, University of North Carolina, Chapel Hill; John M. Murray, University of Pennsylvania; John Sedat, University of California School of Medicine; Stephen Smith, Stanford University School of Medicine; Kenneth R. Spring, National Institutes of Health; and others.

Guest Lecturers: Shinya Inoué, Marine Biological Laboratory; Ernst Keller, Carl Zeiss, Inc., NY; and others.

Tuition: \$1600, includes room and board.

■ Application deadline: **AUG. 1, 1991**

For further information and application forms, contact:
Florence Dwane, Admissions Coordinator,
Marine Biological Laboratory, Woods Hole, MA 02543, USA
(508) 548-3705, ext. 216.

Marine Biological Laboratory

UCAR Visitor Research Programs

The University Corporation for Atmospheric Research (UCAR) announces the continuation of its Visitor Research Programs at the National Meteorological Center (NMC) and at the Naval Oceanographic and Atmospheric Research Laboratory (NOARL) Atmospheric Directorate.

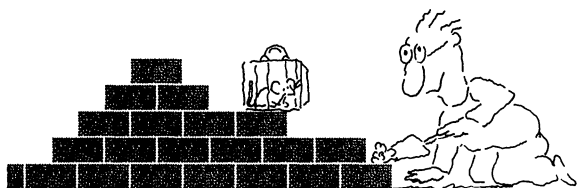
The program offers visiting research appointments in the atmospheric and related sciences at two of the premier R&D centers devoted to operational weather prediction in the United States. Openings in the UCAR program include positions for senior and postdoctoral scientists. Remuneration is commensurate with the experience of the scientists and local living costs, and is competitive with analogous university and government appointments. Appointments are for up to two years.

There is no application form. Send a resume along with a statement of how your research interests and experience relate to the areas of scientific interest at the host institution. Appointments are made twice per year from applications submitted by January 15 and August 1. Send the required information to Meg Austin, UCAR Projects Office, PO Box 3000, Boulder, CO 80307. For a flyer describing the program in detail contact her at (303) 497-8630 or via e-mail at m.austin@omnet.



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POST-GRADUATE COURSE FOR TRAINING IN REPRODUCTIVE MEDICINE AND REPRODUCTIVE BIOLOGY

The Clinic of Infertility and Gynecologic Endocrinology, Faculty of Medicine, University of Geneva is accepting applications for a post-graduate training course in Reproductive Medicine and Reproductive Biology. The purpose of this course is to provide post-graduate training in reproductive health, to educate graduates in current research on Family Planning and Infertility and to make trainees acquainted with the most recent advances in the technology of these areas of research.

The programme of the course provides for a broad international orientation including neuroendocrinology, analytical cytology and morphometry, andrology, various clinical aspects of contraception and infertility, psychosociologic factors and epidemiology of reproduction. The course, comprising lectures and practical work, will be given by the teaching staff of the Departments of the Faculty of Medicine of the University of Geneva. Invited lectures will also be given by advisors and staff members of the WHO Special Programme of Research, Development and Research Training in Human Reproduction.

The post-graduate course will lead to a **diploma** in reproductive medicine (alt. reproductive biology) or a **certificate** in reproductive medicine and reproductive biology. The **certificate** can be obtained after 2 months' intensive course followed by written examination. This intensive course is compulsory for all students accepted for the post-graduate training. A limited number of students having been awarded a certificate will be accepted for the **diploma** course. The duration of the **diploma** course will be 22 months.

The post-graduate course will be bi-lingual with seminars in French and English. Both French and English are accepted as working languages.

ELIGIBILITY

Students who want to undertake research training in the field of reproductive health must have fulfilled the conditions for being admitted to the University of Geneva and have relevant university degree in either medicine or biology in his/her home country.

For details and application forms, please send a postcard or letter with your name and home address to:

Prof. E. Johannisson, M.D., Ph.D.
Clinique de stérilité et d'endocrinologie gynécologique
Département de gynécologie et d'obstétrique
Hôpital cantonal universitaire
Boulevard de la Cluse 32
1205 Geneva
Switzerland

Deadline for receipt of Applications: July 1, 1991.

The Department of Animal Drug Evaluation, Merck, Sharp & Dohme Research Laboratories, Merck & Co., Inc. is requesting applications for the positions of Research Fellow, Companion Animal Medicine, and Research Fellow, Food Animal Medicine.

Research Fellow Companion Animal Medicine

The successful candidate will plan and implement programs to evaluate new compounds for potential application in companion animal medicine. Areas of current research interest within the Department include inflammation, dermatitis, reproduction, and immune enhancement. He/she will work with the chemist, molecular biologist and biochemist to explore relationships of chemical structure and desired activities.

Research Fellow Food Animal Medicine

The successful candidate will plan and implement programs to evaluate new compounds for potential application in food animal medicine. Areas of current research interest within the Department include growth and development, productivity enhancement, and treatment/prevention of infectious diseases. He/she will work with the chemist, molecular biologist and biochemist to explore relationships of chemical structure and desired activities.

Both Research Fellows will provide scientific and clinical advice to management on current needs in companion animal/food animal medicine and assist in the review of product candidates.

Qualified candidates must have a DVM or equivalent, and a Ph.D. in Physiology, Pharmacology or Immunology. Clinical experience in companion animal/food animal medicine and/or postdoctoral experience is desirable. Good verbal and written communication skills, training in biostatistics and a strong background in experimental design are essential.

Salary and benefits are excellent and commensurate with experience. Interested applicants should submit a curriculum vitae to: **Susan R. Jenkins, R80-A3, Merck & Co., Inc. P.O. Box 2000, AD #80, Rahway, NJ 07065.**

We are an equal opportunity affirmative action employer m/f/v/h



Merck & Co., Inc.

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY. Available immediately to develop program to humanize and modify murine monoclonal antibodies. Experience in cloning, sequencing, and mammalian cell expression required; working knowledge of immunogenetics desirable. Send curriculum vitae to: **Dr. Roberto Ceriani, John Muir Cancer and Aging Research Institute, 2055 North Broadway, Walnut Creek, CA 94596. An Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE

We are a scientific research center located in northeast Philadelphia with a position available for a Ph.D. to assist in cancer research. Training and experience in biochemistry and/or molecular biology and regulation of cells in culture required. Interested candidates please send curriculum vitae and summary of research interests to: **SS, c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE. Position available for recent Ph.D. to study the mutation, function, and regulation of thymidylate synthase in human cancer cells, to determine events that influence programmed cell death, and the influence of interferons in these processes. Techniques include molecular biology, protein purification, enzyme kinetics, HPLC, and cell culture. A strong background in molecular biology, biochemistry, or molecular pharmacology is required. Send curriculum vitae and three letters of reference to: **Dr. J. A. Houghton, Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH SCIENTIST POSITIONS

Applicants are invited to apply for a senior research scientist and research scientist position in the Institute of Nuclear and Particle Physics. Candidates must have a Ph.D. in physics. The senior position requires over 10 years of experience and proven competence in quantum group field theory as applied to quasi-elastic electron-nucleus scattering nucleon modification in nuclei, the evolution of the spin structure of the nucleon, and meson photo-production. The research scientist position requires over 5 years of experience in theoretical nuclear and particle physics with proven competence in pion-nucleus reactions, relativistic theories for nuclei, electroproduction of hypernuclei, and meson exchange effects. Send curriculum vitae and three letters of reference by 30 June 1991 to: **James S. McCarthy, Department of Physics, University of Virginia, Charlottesville, VA 22901. Equal Opportunity Employer.**

RESEARCH SCIENTISTS BIOTECHNOLOGY RESEARCH AND PROCESS DEVELOPMENT

Environmental BioScience Corporation (EBC) is a privately held biotechnology company located in Cambridge, Massachusetts, involved in solving problems related to energy and the environment. We are seeking experienced microbiologists and bioengineers to participate in the development of a microbial process for the desulfurization of fossil fuels. Positions involve working with a diverse group of academic and industrial scientists and engineers in supervising and conducting bench-scale experiments leading to pilot plant trials. Requires a Ph.D. in microbiology, biochemistry, or bioengineering and some experience in fermentation and process parameter optimization.

EBC offers a competitive compensation and benefits package, including stock options. Please send your résumé (in confidence) and three references to:

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POSITIONS OPEN

STAFF SCIENTIST ENERGY ANALYSIS PROGRAM

Lawrence Berkeley Laboratory, a multi-disciplinary national laboratory run by the University of California for the Department of Energy, is involved in significant programs of energy and environmental analysis.

In this career position, you'll participate in studies of the urban heat island phenomenon as it affects building energy use and air quality.

You'll need experience in the design of monitoring experiments, analysis of measured data, use of urban boundary layer models, and simulation of building energy use with advanced hourly programs. A Ph.D. in engineering, architecture, or environmental disciplines is preferred.

To apply for this challenging opportunity, please send your résumé to: **Lawrence Berkeley Laboratory, Employment Office, Job #B/6452, 90/1042, One Cyclotron Road, Berkeley, CA 94720. An Equal Opportunity Employer. Women and minorities are encouraged to apply.**



**LAWRENCE
BERKELEY
LABORATORY**

RESEARCH ASSOCIATE

A postdoctoral fellowship in experimental pathology/molecular biology of retroviral infections and AIDS at the Armed Forces Institute of Pathology (AFIP) is immediately available. Project areas include quantitative PCR and combined PCR/in situ hybridization for the detection of retroviruses in tissue sections. Salary ranges from \$35,000 to \$44,000 depending on experience and qualifications plus excellent fringe benefits. Duration: 2 to 3 years. Send curriculum vitae to: **Dr. Allen Burke, Cardiovascular Pathology, AFIP, Washington, DC 20306-6000.**

ASSISTANT RESEARCH BIOLOGIST (NEUROANATOMIST)

Applications are invited for an assistant research biologist position in the biology department at the University of California San Diego, to head a sub-group within a multidisciplinary neurobiology group. The position will involve the investigation of trophic and other factor effects on adult rat in vivo models of CNS and PNS degeneration and regeneration. Applicant must have a Ph.D. in biology or neurosciences and have at least 3 years of research experience with: stereotactic surgery on adult rat brain, PNS and CNS tissue transplantation, neuro-immunohistochemistry, histochemistry, morphometry, intraventricular and intraparenchymal trophic factor administration, and CNS cholinergic systems. Applicant must also have a strong educational background in clinical medicine. Salary will be commensurate with experience and based on published University of California salary scale. Send curriculum vitae, reprints, and the name of three references by 30 June 1991 to: **Dr. Silvio Varon, Department of Biology 0601, University of California San Diego, La Jolla, CA 92093. The University of California is an Equal Opportunity Employer. If noncitizen, state immigration status.**

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INTERNATIONAL HUMAN FRONTIER SCIENCE PROGRAM

REQUEST FOR APPLICATIONS

Research Grants/Fellowships/Workshops
for awards in 1992

The Human Frontier Science Program (HFSP) aims to promote through international collaboration, basic research to elucidate the complex mechanisms of living organisms, including man. Applications are invited for the support of research grants, fellowships and workshops for research aimed at the elucidation of biological functions at the molecular level and brain functions. The program distributed about \$ 12 m on new awards this year and aims to spend a similar amount in 1992.

Research Areas of the HFSP

(A) Basic research for the elucidation of brain functions

1. Perception and Cognition
2. Movement and Behaviour
3. Memory and Learning
4. Language and Thinking

(B) Basic research for the elucidation of biological functions through molecular level approaches

1. Expression of Genetic Information
2. Morphogenesis
3. Molecular Recognition and Responses
4. Energy Conversion

Research grants : Grants for basic research carried out *jointly by research teams in different countries*. The principal applicant must be from one of the eligible countries*

Long-term (3 months-2 years) and short-term fellowships (up to 3 months) : Fellowships for researchers from the eligible countries who wish to do research in foreign countries, or for researchers outside the eligible countries who wish to do research in one of the eligible countries.

Workshops : Subsidies for international workshops organized by researchers from the eligible countries.

* The eligible countries for the current year are **Canada, France, Germany, Italy, Japan, Switzerland U.K., U.S.A and non-summit EC member countries** . (Details in the guidebook)

Application Deadline : September 30, 1991

For research grants and long-term fellowships , the awards will be announced in April 1992. *Applications for short-term fellowships and workshops can be submitted throughout the year.*

Guidebooks and Application Forms may be obtained upon **written** request from the address given below. Please indicate which program activity (Research Grant/Long-Term Fellowship/Short-Term Fellowship/Workshop) you are interested in.

No guidebooks and Application Forms for Research Grants and Long-Term Fellowships will be available after September 1, 1991

**International Human Frontier
Science Program Organization
(HFSP)
Tour Europe
20 place des Halles
67000 STRASBOURG - FRANCE
TEL : (France 33) -88-32-88-33
FAX : (France 33) -88-32-88-97**



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