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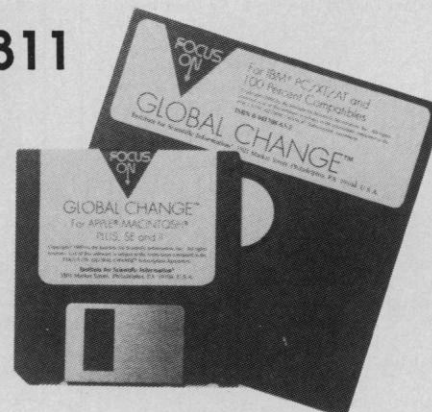
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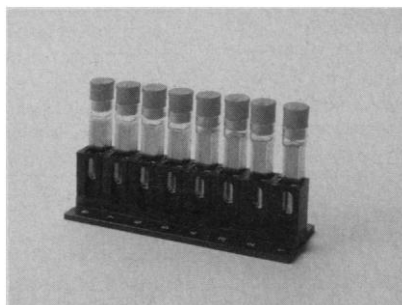
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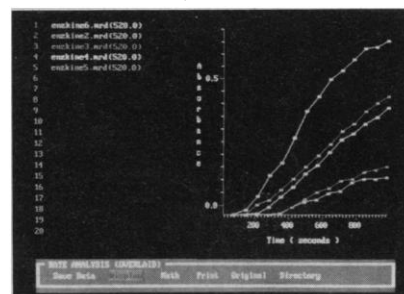
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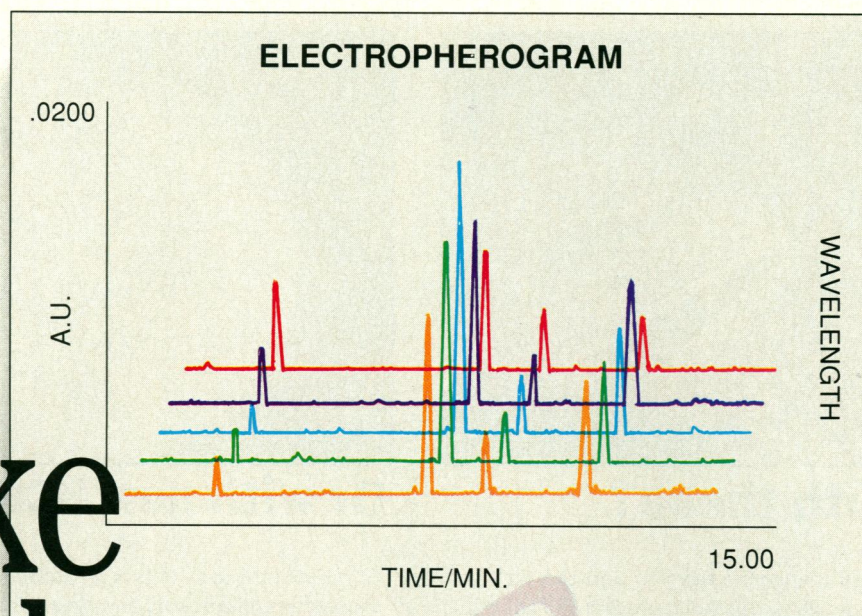
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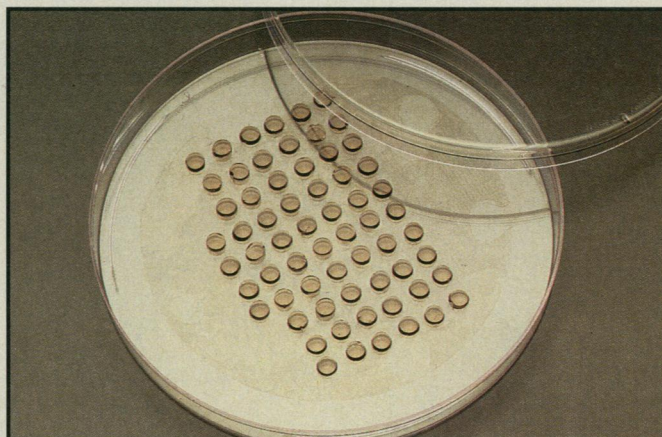
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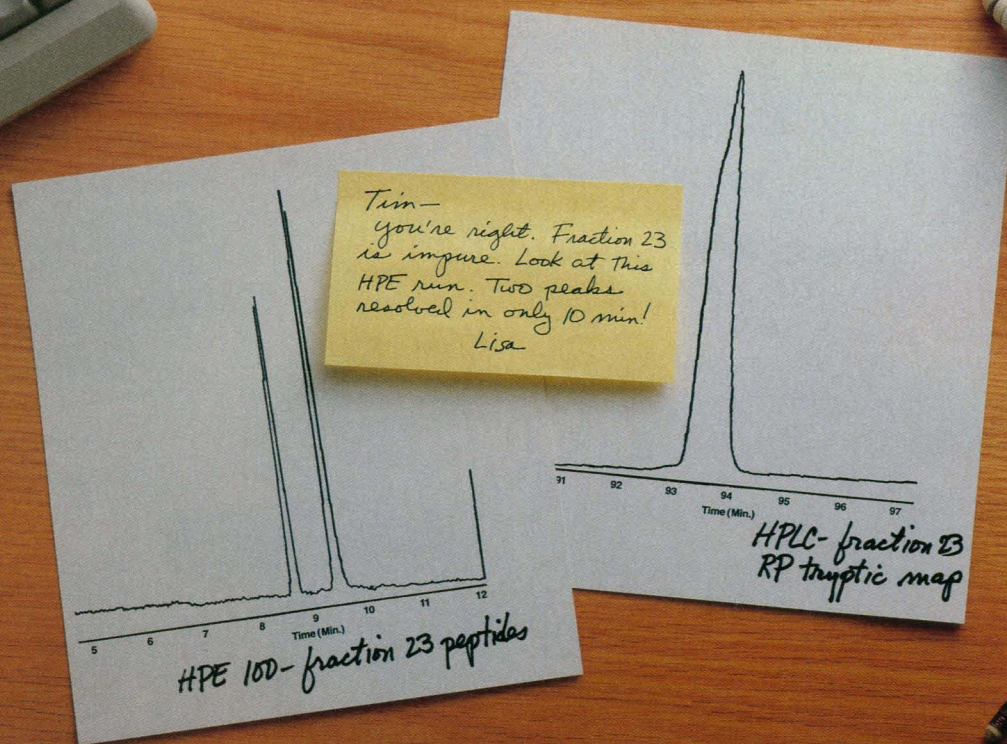
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## ANATOMIST/PHYSIOLOGIST BIOCHEMIST/MICROBIOLOGIST/ PATHOLOGIST/PHARMACOLOGIST

The American University of the Caribbean, School of Medicine, located in Montserrat, British West Indies, seeks to fill teaching positions in the above areas. Excellent salary, benefits, and many recreational opportunities. Send résumé, earliest date available, and salary requirement to: **Medical Education Information Office(s), 2801 Ponce de Leon Boulevard, Suite 800, Coral Gables, FL 33134.**

## ASSISTANT PROFESSOR OF MEDICINAL CHEMISTRY

The Interdepartmental Program in Medicinal Chemistry at the University of Michigan, College of Pharmacy, invites applications for a 4-year appointment as an assistant professor of medicinal chemistry. While a non-tenure-track position, the possibility exists for future consideration for a tenure-track opening. The successful applicant will participate in a team-taught, two-semester, undergraduate sequence in medicinal chemistry and will be expected to pursue independent research in medicinal chemistry. This research effort should complement those of existing faculty. Areas of particular interest include peptide chemistry, conformational analysis, or chemical/physical aspects of drugs of abuse; however, candidates with research interests in related areas will also be considered. Expertise in modern methods of NMR spectroscopy would be highly desirable. Preferred starting date is 1 September 1990, but is negotiable. Please send curriculum vitae, statement of research interests, and three letters of recommendation to: **Professor Henry I. Mosberg, College of Pharmacy, University of Michigan, Ann Arbor, MI 48109-1065.** Preference will be given to those candidates submitting completed applications by 31 May 1990. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

## ASSISTANT PROFESSOR PROKARYOTE MOLECULAR BIOLOGY UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE AT CHICAGO

The Department of Microbiology and Immunology at the University of Illinois College of Medicine at Chicago is seeking to fill a position at the level of assistant professor (tenure track; associate professor candidates will also be considered) in prokaryotic molecular biology, broadly defined. Candidates involved in protein engineering would be particularly welcome. Candidates will be expected to develop a strong independent research program with external funding. Adequate space and start-up funds are available. Participation in teaching and graduate student training is expected.

Applicants should provide the search committee with a curriculum vitae, at least three letters of recommendation, and a brief statement of future research interests and plans. The first series of candidates will be considered after 13 April 1990 and applications will be accepted until the position is filled. Starting date can be September 1990 or thereafter.

Send applications to: **Drs. A. M. Chakrabarty, Philip Matsumura, Simon Silver, and Karl Volz, Prokaryote Molecular Biology Search Committee, Department of Microbiology and Immunology (M/C 790), University of Illinois College of Medicine at Chicago, P.O. Box 6998, Chicago, IL 60680.**

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

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR IN BEHAVIORAL NEUROSCIENCES/ PHYSIOLOGICAL PSYCHOLOGY

The Department of Psychology at Harvard University has an opening in psychobiology at the nontenured level (i.e., assistant or associate professor, depending on qualifications). Candidates should be prepared to teach at the undergraduate and graduate levels and direct student research in any area of psychobiology. They should have a record of research in relevant areas. Acceptable areas include behavioral neurosciences and physiological psychology. Applicants should include curriculum vitae and should ask at least three individuals familiar with their work to write directly to: **Jerome Kagan, Chairman, Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138.** The closing date for the receipt of applications is 31 July 1990.

*Applications from women and members of minority groups are especially welcome.*

### ASSISTANT OR ASSOCIATE PROFESSOR DEPARTMENT OF GEOGRAPHY

Half-teaching, half-research position as assistant or associate professor, Department of Geography, College of Natural Resources, Utah State University. Tenure-track, academic year position; Ph.D. in meteorology or closely related field, established record of scholarship in meso-scale meteorology. Conduct research linking global atmospheric circulation and surface hydrologic and biosphere processes at various scales, collaborate with people working in these areas, help develop a multidisciplinary weather research lab, develop own research program in applied meteorology, and teach two or three specialty courses. Send curriculum vitae and names of four references to: **Ted J. Alsop, Chair, Search Committee, Department of Geography, Utah State University, Logan, UT 84322-5240.** Deadline: 30 April 1990 or until suitable candidate is found. *Utah State University is an Affirmative Action/Equal Opportunity and IRCA Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR IN PHARMACEUTICAL SCIENCES

Applications and nominations are invited for a tenure-track position at the rank of assistant or associate professor. Applicants should have earned a Ph.D. degree in any of the following disciplines: pharmaceuticals, biopharmaceuticals, pharmacokinetics, medicinal chemistry, pharmacology, or toxicology. Candidates are expected to develop an externally funded innovative research program and participate in professional and graduate education. The salary is highly competitive and adequate research space and start-up funds will be provided. The deadline for applications is 1 June 1990. Interested applicants should submit curriculum vitae, three letters of recommendation, and a summary of current and future research interests to: **Pharmaceutical Sciences Search Committee, College of Pharmacy, North Dakota State University (NDSU), Fargo, ND 58105.** *NDSU is an Equal Opportunity Employer.*



**LAWRENCE  
BERKELEY  
LABORATORY**

The Lawrence Berkeley Laboratory (LBL), in cooperation with the University of California, San Francisco, is seeking a candidate for appointment as the life sciences, advanced light source (ALS) **PROFESSOR.** Candidates must be well established in scientific pursuits using experimental approaches in subcellular imaging, structural biology, or biochemistry. The LBL/ALS resource will provide the potential for studies in biological imaging in the submicron region of cellular and subcellular specimens, spatially resolved spectroscopy, time-resolved x-ray scattering, and crystallography. Responsibilities will include conduct of biological and biochemical studies using the ALS as a major investigative tool and teaching duties. Send résumé and names and addresses of three references to: **Thomas F. Budinger, M.D., Ph.D., Division Director, Research Medicine/Radiation Biophysics, c/o Employment Office, #1 Cyclotron Road, M.S. 90/1042, Lawrence Berkeley Laboratory, Berkeley, CA 94720.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### UNIVERSITY OF CAMBRIDGE PROFESSORSHIP OF ANATOMY

Applications are invited for the above chair which is now vacant.

Present pensionable stipend: £29,732.

Further information from: **Secretary General of the Faculties, General Board Office, The Old Schools, Cambridge, CB2 1TT England**, to whom applications (ten copies), marked "confidential," should be sent with names of two referees by 14 May 1990.

*The university follows an Equal Opportunities policy.*

### ASSISTANT/ASSOCIATE PROFESSOR ANATOMY/NEUROBIOLOGY

Applicants are invited for a tenure-track position in the Department of Anatomy and Cell Biology, University of North Dakota School of Medicine. Applicants must have Ph.D., M.D., or equivalent with at least 2 years of postdoctoral training and research experience in developmental neurobiology or related areas. The successful applicant will be expected to carry on a vigorous extramurally funded research program in his/her respective field. Applicants should be willing to accept responsibility for directing or co-directing an interdepartmental neuroscience course for medical students and for making a substantial contribution to the departmental graduate program. Send curriculum vitae, descriptions of research and teaching experience, and three letters of reference by 15 May 1990 to: **Dr. Edward C. Carlson, Chairman, Department of Anatomy and Cell Biology, University of North Dakota School of Medicine, Grand Forks, ND 58202.** *The University of North Dakota is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*

**ASSISTANT PROFESSOR, POPULATION DYNAMICS/BIOCONTROL.** Twelve-month, tenure track, 70% research, 30% extension. Develop innovative research in population dynamics and causal mechanisms in selected pests of vegetables. Work with interdisciplinary teams in artificial intelligence, expert systems, and IPM. Provide leadership for extension to Pennsylvania vegetable industry with support as needed to mushroom programs. Significant start-up funds, personnel, and new building. Ph.D. with strengths in population dynamics and biocontrol. Send résumé, transcripts, statement of research interests, and names of five references to: **J. L. Frazier, Department of Entomology, Box S, 106 Patterson, Pennsylvania State University, University Park, PA 16802.** Closing date: 30 June 1990 or until suitable candidate found. *An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

The Center for Studies of Addiction, University of Pennsylvania, has a position available for a **BEHAVIORAL PHARMACOLOGIST OR NEUROSCIENTIST**. Applicant should have several years of experience directing animal experiments of a bio-behavioral nature with particular emphasis on the study of drugs of abuse and a record of productivity in this area. An animal laboratory equipped for rat, pigeon, and primate research and office space for the applicant and a staff of four are available. Primary appointment in the Department of Psychiatry as well as possible secondary appointment in pharmacology or another basic science department. Salary and benefits are negotiable. Send résumé and letter of interest to: **Charles P. O'Brien, M.D., Ph.D., Director, Center for Studies of Addiction, 3910 Chestnut Street, Philadelphia, PA 19104-6178.** *Affirmative Action/Equal Opportunity Employer.*

**BIOCHEMISTRY AND MOLECULAR BIOLOGY.** Permanent-track **FACULTY POSITION.** Excellent facilities, support, and research environment available for an established or highly promising research investigator. Level of appointment commensurate with qualifications. Preference given to candidate in the area of molecular structure/function relationships with an interest in teaching graduate and medical school biochemistry. Send curriculum vitae, bibliography, and three letters of reference by 31 May 1990 to: **Dr. David O. Toft, Department of Biochemistry and Molecular Biology, Mayo Medical School, Rochester, MN 55905.** *An Affirmative Action/Equal Opportunity Employer.*

## ASSOCIATE DIRECTOR DRUG METABOLISM RESEARCH

The Drug Metabolism Research Unit at The Upjohn Company is seeking a qualified individual to manage the Drug Disposition Section of the unit. This individual would be responsible for the oversight of unit activities related to the absorption, distribution metabolism and excretion of novel pharmaceutical agents which are targeted for the treatment of human diseases. Successful candidates should have demonstrated scientific and leadership experience related to investigating the disposition and metabolism of radiolabeled drugs in both laboratory animals and human volunteers. The candidate should also be familiar with state-of-the-art analytical methodologies and radiochemical techniques. In addition, a proficiency in the area of mechanistic toxicology, pharmacology and pharmacokinetics are required.

This position reports to the Director of Drug Metabolism Research, along with one other Associate Director. Reporting to the position are approximately 35 scientific, associate, technical and office staff.

This position requires a Ph.D. in chemistry, biochemistry, or pharmaceutical chemistry, and demonstrated experience in drug metabolism research related to drug development. Leadership and management skills, good oral and written communication skills and a demonstrated ability to effectively lead a scientific goal-oriented group are required.

Kalamazoo is a medium-sized community in Southwestern Michigan, midway between Chicago and Detroit offering varied cultural events, moderate housing costs, and lakes and woodlands minutes away. Educational opportunities are available at several local universities and colleges.

We offer a stimulating and challenging work environment. Candidates may expect a salary and benefits package commensurate with their experience. For confidential consideration, please submit your resume to: **THE UPJOHN COMPANY, CORPORATE RECRUITING, KALAMAZOO, MI 49001-9988**, or materials may be faxed to 616/329-5525. Please refer to position Number 5674-HB in all your correspondence. The Upjohn Company is an Equal Opportunity Employer M/F.

*Our Commitment to Scientific Excellence Continues...*

**Upjohn**

## Vice President Director of Research

Immunex Research and Development Corporation, a Seattle-based biopharmaceutical company committed to the research and development of immunological therapeutic products, is currently recruiting for a Vice President, Director of Research.

This newly created position will oversee the activities of our Molecular Biology, Immunology, Transgenics and Experimental Hematology departments, and will play a significant role in initiation and supervision of the Company's proprietary research activity. Combined employment in these groups totals over 90 individuals, 32 of whom hold PhD degrees.

We are looking for an internationally renowned research scientist with a proven track record in either Immunology or Hematology. Familiarity with molecular aspects of either discipline is essential. The successful candidate will have demonstrated management experience in a research environment, and the ability to lead multidisciplinary teams in a collaborative approach to research. Research experience in the molecular characterization of immune responses is preferred.

Immunex offers competitive salaries and an excellent benefits package. For consideration, please send C.V., including a current list of publications, to: **Steven Gillis, PhD, President, Immunex Research and Development Corporation, 51 University Street, Seattle, WA 98101.** Equal Opportunity Employer

**IMMUNEX**



# PHARMACEUTICAL- MICROBIOLOGY

SmithKline Beecham is a \$7-billion world leader in pharmaceutical research whose 50,000 employees are committed to creativity and innovation in their approach to discovering new pharmaceutical compounds. Right now we're looking for an experienced Manager who can apply this approach in assuring quality of clinical supplies.

This is a unique opportunity to use your GMP compliance background in a research and development environment. You will manage the environmental monitoring program to assure GMP/GLC compliance. You'll also provide microbiological expertise regarding LAL testing, sterility testing and identification of organisms, as well as assure that methods and equipment are properly validated.

To qualify, you'll need a Ph.D./M.S. in Microbiology or equivalent experience, at least 3 years' experience in a pharmaceutical microbiology laboratory, including experience with microbiological identifications, a thorough knowledge of GMPs as they apply to microbiological testing and a track record of innovation. Experience with D value analyses and a knowledge of USP test methods are preferred.

Located in a state-of-the-art R&D complex in suburban Philadelphia, SmithKline Beecham offers a highly competitive salary, a comprehensive package of benefits, and an atmosphere of creativity and innovation in which to work. To apply, send your resume to: Liz McKendry, E130, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939.

THINK GLOBAL EXCELLENCE

We are an Equal Opportunity Employer, M/F/H/V.

**SB**  
**SmithKline Beecham**  
Pharmaceuticals

# Cell Biologist/ Biochemist

Kraft General Foods is a \$22 billion company, and a world leader in the food industry. We are currently seeking a cell biologist/biochemist with microscopy background to work in our Basic Science Division.

The selected individual will join a Microstructure Group studying the structure/function relationships inherent in diverse food systems which include proteins, carbohydrates and lipids. A team approach is used in conjunction with other physical chemistry disciplines to drive and support product and process development in diverse areas such as cultured and frozen dairy products, viscous and pourable dressings, margarine and spreads among others.

A PhD or equivalent background in cell biology or biochemistry with appropriate experience in microscopy techniques such as electron microscopy, fluorescence microscopy and/or histochemistry is required. Experience in image analysis and computer imaging is favorable.

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**

## Department of Zoology College of Science Kuwait University

Invitations are invited from Ph.D. holders in the following fields:

### Neurophysiology

### Comparative Anatomy of Chordates

### Terrestrial Ecology, Animal Adaptation to Desert Environment (with exception of insects)

### Marine Biology: Fisheries Biologist / Ichthyologist

Applicants must have adequate teaching and research experience and must be capable of initiating research work and supervising graduate students. Applicants who have published in international refereed journals are preferred. The successful candidates will be expected to carry out active research in harmony with the research activity of the Department.

Applications forms and conditions of service may be obtained from:

**Kuwait University Office**  
3500 International Dr. NW  
Washington, DC 20008

Completed applications together with non-returnable copies of representative publications must be received by July 31, 1990 and must be sent directly to:

**Administrative Office**  
Kuwait University  
P.O. Box 5969  
13060 Safat  
KUWAIT



## Director Center for Molecular Biology

### Wayne State University

Applications are invited for the position of Director of the Center for Molecular Biology, an interdisciplinary program composed of primary and participating faculty located in various departments throughout the University. The Director reports to the Vice President for Research and Dean of the Graduate School and will be responsible for the continued growth and development of the Center, which has a \$2,000,000+ annual operating budget. The Center for Molecular Biology is a relatively young enterprise and currently has eight full-time and three half-time faculty members; additional faculty positions are available. The Director should be an independent investigator with a superlative record of scholarly accomplishment in an area of Molecular Biology, possess extramural support and have the capacity for leadership and administration. Experience with promoting economic development through effective technology transfer is highly desirable. Salary is commensurate with qualifications and experience. Applicants should forward a copy of their curriculum vitae to:

Dr. Raymond F. Novak  
Chairman, Search Committee  
Wayne State University  
2727 Second Avenue, Room 4000  
Detroit, MI 48201

Wayne State University is an equal opportunity/affirmative action employer.

## Human Gene Therapy

Somatix is creating cell-based protein delivery systems which may be implanted into patients to produce and deliver therapeutic proteins. The expertise of Somatix is both in genetic augmentation of somatic cells and in advanced drug delivery. Gene transfer into human cells using recombinant retroviral vectors is a technology that was pioneered by the founding scientist of the company, Dr. Richard Mulligan of the Whitehead Institute at MIT.

### RESEARCH SCIENTIST/Cell Transplantation

Somatix is currently seeking a PH.D. level scientist with a minimum of 2 years post doctoral experience in cell biology to develop cell based protein delivery systems for animal and human use. The successful candidate will have had research experience in angiogenesis. A preference will be given to those individuals having a familiarity with biomaterials, microencapsulation or artificial cells.

### RESEARCH ASSOCIATE/Cell Transplantation

Somatix is currently seeking a B.S. and/or M.S. level Scientist to be involved in the development of delivery systems for genetically augmented somatic cells. The successful applicant will have had a minimum of 3 years of academic or industrial experience in the areas of cell biology and/or cell transplantation. Preference will be given to those individuals possessing skills in tissue culture, animal handling, enzymatic assays and/or biomaterials.

Somatix provides excellent career potential in a rapidly growing company and provides a competitive compensation and benefits package. If you are a self-motivated individual interested in being an important and valued member of a multi-disciplinary team, then please forward your applications quoting reference LH 90/19.

# Somatix

1 Kendall Square, Building 650, Cambridge, MA 02139

## POSITION AVAILABLE DIRECTOR, MEDICATIONS DEVELOPMENT DIVISION NATIONAL INSTITUTE ON DRUG ABUSE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

The Alcohol, Drug Abuse, and Mental Health Administration invites nominations and applications for the position of Director, Medications Development Division, National Institute on Drug Abuse.

This is a Senior Executive Service position in the career civil service, with an annual salary range of \$71,200 to \$79,200. Physicians may also be eligible for a Physicians' Comparability Allowance of up to \$20,000 per year. The position is located in Rockville, Maryland.

The Director, Medications Development Division provides programmatic, administrative, and general management of the five branches of the Division: the Biometrics Research Branch, the Clinical Trials Branch, the Regulatory Affairs Branch, the Chemistry and Pharmaceuticals Research Branch, and the Pharmacology and Toxicology Branch. The Director is also responsible for coordinating the activities and medications development requirements of the three ADAMHA Institutes into the scientific and management activities of the Division and maintains close contact with designated medications development staff at the National Institute on Alcoholism and Alcohol Abuse and the National Institute of Mental Health.

The Director is also responsible for maintaining close working relationships with senior staff at the Food and Drug Administration on matters relating to operational and scientific procedures involved in medications development as well as the development of policy affecting ADAMHA's programs. Additionally, the Director provides authoritative advice and consultation to senior agency officials on a wide range of matters pertaining to the treatment of brain and behavior disorders and the pharmacological evaluation of new treatment agents.

Minimum qualifications requirements include a degree of Doctor of Medicine, Doctor of Osteopathy, or a bachelor's degree or higher degree in an academic field related to the health sciences pertinent to the work of the position. Candidates must demonstrate evidence of progressively responsible experience in managing large, complex science/research programs in the biomedical/behavioral areas; supervising or collaborating with senior-level scientists in academia, private industry, or the Federal Government; extensive current knowledge of research methodology in the biomedical, behavioral, pharmacological, or clinical sciences in areas relevant to drug abuse.

Further information about the position and qualifications requirements may be obtained by contacting Ms. Leslie Everheart at (301) 443-5030. An SF 171 (Application for Federal Employment) accompanied by a current curriculum vitae and bibliography should be submitted to Ms. Everheart at the Division of Personnel Management, Alcohol, Drug Abuse, and Mental Health Administration, 5600 Fishers Lane, Room 15C-26, Rockville, Maryland 20857. Complete Application material (including the SF 171) must be postmarked by the closing date of April 30, 1990. *Resumes are not acceptable for entrance into the Senior Executive Service.*

Applications from women and minority group members are encouraged.

THE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION IS AN EQUAL OPPORTUNITY EMPLOYER



## DIRECTOR, DIVISION OF ENDOCRINOLOGY

The Department of Internal Medicine of St. Louis University School of Medicine invites applications and nominations for the position of Director of its Division of Endocrinology. We seek a physician-scientist with a substantial publication record and a history of peer-reviewed grant support. The Director will be responsible for developing a large, academically oriented Division. Generous research space and financial support will be provided.

Please forward nominations and applications to Coy D. Fitch, M.D., Drefs Professor and Chairman, Department of Internal Medicine, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104. Equal Opportunity Employer M/F/H/V.



**St. Louis University  
School of Medicine**

## Endowed Chair

in

Molecular Genetics Applied to Crop Improvement  
University of Minnesota

The Department of Agronomy and Plant Genetics invites nominations and applications for the newly established \$2.5 million endowed chair in Molecular Genetics Applied to Crop Improvement.

The recipient of the chair will hold a tenured faculty appointment in the Department of Agronomy and Plant Genetics at the rank of Associate Professor or Professor, depending on qualifications. Candidates must have a doctoral degree and a background in plant biology with an interest in applications of molecular genetics to crop improvement. A minimum of 4 years experience is necessary with evidence of major contributions, demonstrated excellence, and outstanding future potential in plant molecular genetics.

The holder of the endowed chair position will be expected to provide leadership in research and teaching. Research will emphasize the application of molecular genetics to soybean and cereal grain improvement. Interactions with plant breeders, plant physiologists, geneticists and molecular biologists as well as certain commodity groups are expected. Teaching will be in the area of plant molecular biology and genetics.

Applications (including a complete curriculum vitae, statement of research and teaching interest and the names and addresses of at least 3 references) are to be sent no later than June 1, 1990 to:

**Dr. Ronald L. Phillips  
Chair, Search Committee  
Department of Agronomy and Plant Genetics  
University of Minnesota  
1991 Buford Circle  
St. Paul, MN 55108 USA  
612-625-1213  
FAX 612-625-1268.**

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

## POSITIONS OPEN

**BIOCHEMIST.** To conduct research with medical applications for worldwide clientele, utilizing state-of-the-art instrumentation; develop and perform tests for toxic substances and trace materials in human specimens; test for zinc and copper and lactic acid; perform cold vapor mercury testing; test for D-glucuronic acid; initiate and implement radioimmunoassay testing and recombinant DNA analysis; and perform statistical analysis, modifying software as needed to assess multielement chemical activity in enzymes. Supervise support staff as appropriate to complete above duties. M.S. in biochemistry plus demonstrated ability to perform: high-pressure liquid chromatography, atomic absorption spectrometry, radioimmunoassay procedures, recombinant DNA, and protein purification. Forty hours per week, 8:00 a.m. to 5:00 p.m.; \$28,500 per year. Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Connie M. Evans, #V-IL-9949-E. An employer-paid ad.**

**BIOCHEMIST. STAFF SCIENTIST, ASSOCIATE PROFESSOR** equivalent; position available for research and teaching. Candidates will have Ph.D. in biochemistry, with 15 to 20 years of research and 5 years of teaching experience in environmental neurotoxicology, with particular emphasis on phytochemistry and phytotoxicology. The major responsibility will be in the detection, isolation, and bulk synthesis of potential phytotoxins and their toxicological evaluation using primates, rodents, and chicks, with additional graduate and other teaching assignments. Salary commensurate with qualifications and experience. Submit fully developed application within 30 days of journal publication to: **Dr. P. S. Spencer, Director and Senior Scientist, Center for Research on Occupational and Environmental Toxicology, Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, L474, Portland, OR 97201-3098. Oregon Health Sciences University is an Equal Opportunity/Affirmative Action Employer.**

## BOTANIST PROJECT MANAGER THE JEPSON MANUAL

Effective immediately, the Jepson Herbarium, University of California at Berkeley, invites applications for a 2-year, academic appointment as project manager to oversee completion of *The Jepson Manual: Vascular Plants of California*, a major, multiauthored, plant identification resource now in the 8th year of a 10-year preparation schedule. The primary tasks are to edit a portion of text submitted to *The Jepson Manual*, following existing approaches, concepts, and formats (85%) and, supported by administrative staff, to bear day-to-day administrative authority for the project (15%). Qualifications include substantial professional botanical experience (Ph.D. preferred), broad knowledge of California vascular plants and geography, skill in plant taxonomy and nomenclature, demonstrated ability as a scientific writer and editor, sympathy with orientation of technical material to nontechnical users, word-processing ability, and well-developed interpersonal skills. Salary range: \$36,684 to \$58,308. Position open until filled. Send letter of application, curriculum vitae, and names of three references to: **Professor Lincoln Constance, Search Committee Chairman, Jepson Herbarium, University of California, Berkeley, CA 94720. An Equal Opportunity/Affirmative Action Employer.**

## COORDINATOR, ENVIRONMENTAL HEALTH AND SAFETY UNIVERSITY OF FLORIDA LP# 805250

**BIOSAFETY.** The Division of Environmental Health and Safety at the University of Florida is seeking an individual to coordinate its biosafety program. The position requires a B.A. (biology, biosafety, environmental engineering) plus 2 years of experience, M.S. or Ph.D. preferred. Training and experience in molecular biology is required. Salary is negotiable to \$45,000 per year, and a liberal benefits package is included. Please submit a résumé, referencing #805250, the names of three references, and a salary history in confidence by 4 May 1990 to: **Joseph J. Wnuk, Jr., Recruitment Coordinator, University of Florida, 446 Stadium West, Gainesville, FL 32611.**

All searches are conducted in accordance with Florida's open meeting and records laws. We hire only U.S. citizens and lawfully authorized alien workers. Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**CELL BIOLOGIST.** The Seattle Biomedical Research Institute (SBRI) invites applications for a **STAFF SCIENTIST** (assistant professor level) position. Senior candidates may be considered for a **SENIOR SCIENTIST** (associate or full professor level) position. SBRI is a nonprofit basic biomedical research institute with a cooperative, scientist-oriented environment. Current programs focus on basic molecular biology, immunology, and molecular and immunological parasitology. The successful candidates should have an externally funded, independent research program that employs molecular, biochemical, and/or immunological approaches to the study of gene expression or cellular regulatory processes. Please send curriculum vitae, a statement of proposed research, and names of three references by 15 May 1990 to: **Search Committee, Seattle Biomedical Research Institute, 4 Nickerson Street, Seattle, WA 98109-1651. FAX: 206-284-0313. Equal Opportunity Employer.**

**CHAIRPERSON, DEPARTMENT OF BIOCHEMISTRY.** Tulane University School of Medicine invites applications and nominations for the position of chairperson of the Department of Biochemistry. Candidates should be well-established and funded investigators with a fundamental commitment to teaching medical and graduate students. Focus will be on cellular and molecular biology both within and between departments. Applicants should send curriculum vitae, names and addresses of three references, and a statement about professional goals, interests, and experience to: **Dr. Cyril Y. Bowers, Department of Medicine, Tulane Medical School, 1430 Tulane Avenue, New Orleans, LA 70112.** Applications will be accepted until 30 April 1990. *Tulane Medical School is an Equal Opportunity/Affirmative Action Employer.*

Fairchild Tropical Garden seeks applications for the position of **DIRECTOR**. The garden occupies 83 acres, and maintains some 5000 taxa of documented living plants, herbarium, and library. There are 48 employees including four Ph.D's. Qualifications: a Ph.D. or the equivalent, a record of leadership and managerial skills, plus a knowledge of care and management of botanical collections. The job will be available beginning 1 September 1990; the deadline for applications is 1 June 1990. Send application to: **Search Committee, Fairchild Tropical Garden, 10901 Old Cutler Road, Miami, FL 33156.** Applications should include curriculum vitae and the names and addresses of at least three references.

## DIRECTOR CENTER FOR PHARMACEUTICAL AND IMAGING RESEARCH

The Massachusetts General Hospital and Harvard Medical School are searching for a radiologist to serve as professor of radiology and director of the newly established Center for Pharmaceutical and Imaging Research. The Massachusetts General Hospital, Department of Radiology, is building a multifaceted research program in diagnostic pharmaceuticals. Candidates should have an outstanding record of achievement in diagnostic pharmaceutical research and proven ability in the administration of research programs. Interested candidates should send curriculum vitae and letter of inquiry to: **Professor James H. Thrall, M.D., Department of Radiology, Massachusetts General Hospital, Fruit Street, Boston, MA 02114. Harvard Medical School and Massachusetts General Hospital are Affirmative Action/Equal Opportunity Employers.**

**NMR FACILITY MANAGER.** NMR spectroscopist wanted to maintain and operate two high-field NMR instruments in a new facility in the Department of Biochemistry and Molecular Biophysics at Washington University School of Medicine. A Ph.D. in chemistry or physics is preferred, although candidates with a bachelor's or master's degree and at least 3 years of experience in NMR spectroscopy will be considered. Good communication and interpersonal skills, a background in electronics, and experience in 2D NMR methods are highly desirable. Salary is negotiable and commensurate with experience. Send résumé and three letters of recommendation to: **Gary K. Ackers, Wittcoff Professor and Chairman, Department of Biochemistry and Molecular Biophysics, Washington University School of Medicine, 660 South Euclid Avenue, Box 8231, St. Louis, MO 63110. Washington University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### UNIVERSITY OF HONG KONG CHAIR OF PHYSIOLOGY

Applications are invited for the chair of physiology in the Department of Physiology, tenable from 1 September 1990. The university would prefer to make a permanent appointment, but consideration may also be given to applications for appointment on fixed or secondment terms of preferably not less than three academic years.

The university reserves the right not to fill the chair or to fill the chair by invitation or to make an appointment at a lower level.

Annual salary (superannuable) will be within the professorial range, of which the minimum is HK\$518,520 and the average is HK\$641,400 (approximately US\$1 = HK\$7.80 as of 12 March 1990). At current rates, salaries tax will not exceed 15% of gross income. Housing at a charge of 7.5% of salary, children's education allowances, leave, and medical benefits are provided.

Further particulars and application forms may be obtained from: **Appointments (37676), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, U.K.**, or from: **Appointments Unit, Registry, University of Hong Kong, Hong Kong, FAX: 852-8582549.** Closes 1 June 1990.

**STAFF SCIENTISTS.** Department of Biology, San Diego State University (SDSU). Applications are invited for two permanent Ph.D. level positions to begin 1 June 1990. Opportunity exists for independent research and participation in graduate and undergraduate teaching. Both positions involve supervision of technical staff and graduate assistants, user training, collaborative research with faculty, and preparation of grant proposals for shared major equipment.

**DIRECTOR, ELECTRON MICROSCOPY FACILITY.** Should be proficient in some area of quantitative microscopy and use of computers in analyzing images. The EM facility now contains equipment for TEM, SEM, fluorescence, EDS, image processing, freeze-fracture, cryosectioning, and low dose/cryoelectron microscopy.

**DIRECTOR, CELL BIOLOGY FACILITIES.** Initially to include a radioisotope facility and a tissue culture area (eventually supporting production of primary cell cultures, hybridomas, monoclonal antibodies); other resources and major instruments will be acquired for shared use.

Postdoctoral research experience highly desirable. Salary range for junior and associate staff scientist is from \$32,000 to \$48,000 (\$61,000 for senior level), depending upon qualifications. Applicants should send curriculum vitae, statement of research interests, copies of recent publications, and names and addresses of three references to: **Staff Scientist Search Committee, Personnel Services, San Diego State University, San Diego, CA 92182.** SDSU is an Affirmative Action/Equal Opportunity/Title IX Employer.

**HEAD.** Department of Molecular and Cell Biology, The University of Connecticut. The University of Connecticut invites nominations and applications for the anticipated position of head of the Department of Molecular and Cell Biology. The department has 41 faculty, over 100 graduate students, and external research funding of over \$2.0 million per year. The university is located in a scenic rural community closely linked to several major urban centers. The department seeks a distinguished scientist to provide dynamic and innovative leadership. Applicants must be committed to excellence in research and teaching, and display the enthusiasm, dedication, wisdom, and managerial skills required to foster the continued development of molecular and cell biology at the university. Research areas of the faculty include biochemistry, biophysics, biotechnology, molecular and cell biology, developmental biology, genetics, and microbiology. University resources include a Biotechnology Center that provides core facilities in analytical ultracentrifugation, animal and plant cell culture, fermentation and separation, image processing and analysis, and macromolecular characterization. Nominations and applications, including a résumé and addresses of at least three references, should be sent to: **Dr. Timothy J. Killeen, Dean's Office, U-98, College of Liberal Arts and Sciences, The University of Connecticut, Storrs, CT 06269.** Plans are to fill this position by September 1991. Screening will begin 1 July 1990. The University of Connecticut is an Affirmative Action/Equal Opportunity Employer (Search #OA172).

# IDEXX

**I**DEXX Corp.,

*an innovative,*

*rapidly growing*

*biotechnology*

*company is*

*seeking several*

*highly-motivated*

*individuals to join*

*our Research and*

*Development*

*Group:*

## SCIENTIST

### ADVANCED BIODETECTION TECHNOLOGY DEPT.

**A** Ph.D.-level position that involves participation in the development of novel, innovative biodetection technologies. The successful candidate will have a strong background in physics or physical chemistry and recent experience in protein or nucleic acid chemistry and immobilization.

## SCIENTIST

### INFECTIOUS DISEASE DIAGNOSTICS

**S**everal positions are available for scientists with Ph.D. and post-doctoral training in Microbiology, Immunology, Cell Biology and/or Biochemistry. In these positions, you will be involved in assay optimization and development. Previous industry assay development experience is desired but not mandatory.

## BIOCHEMICAL ENGINEER

**A** unique opportunity to formally begin a new function in our organization. Qualified candidates will have an advanced degree in Biochemical Engineering (either an M.S. or Ph.D.) and a strong background in HPLC, filtration, protein purification and other biotech-related processes.

Responsibilities include: improvement of present processes (both technically and productivity-wise), scale-up of new processes and internal consulting to both R&D and Manufacturing.

*All of the above positions offer you the chance to bring your scientific expertise to an organization that has proven both its product and profitability leadership in the competitive world of Biotechnology.*

*IDEXX offers a terrific location in scenic Portland, Maine and an outstanding compensation, benefits and relocation package.*

*Interested applicants should forward their resume and salary requirements to: Jay Hotchkiss, Director of Human Resources, IDEXX Corporation, 100 Fore Street, Portland, ME 04101.*

## Nucleic Acid Chemist, Molecular Biologist Ph.D.

Genetic Designs, Inc., a rapidly growing biotechnology company specializing in synthetic DNA products and services, is seeking a nucleic acid chemist with molecular biology experience to coordinate the Nucleic Acid Chemistry division. Expertise in both the synthesis and applications of DNA is essential. Responsibilities will include the direction of DNA manufacture, purification and quality control, establishment of new protocols for chemically modified and nonradioactively labeled DNA, and active development and participation in technical support.

We are seeking a highly organized, self-motivated, innovative scientist who would enjoy working in a stimulating environment of team spirit and technology development. Our new location in the Research Forest of The Woodlands, Texas, provides an exciting setting for career advancement, intellectual fulfillment and high quality of life. If you are interested in becoming a part of our dynamic organization, send a resume and letter of application to:



An Equal Opportunity Employer

Personnel Department  
Genetic Designs, Inc.  
7505 S. Main St., Suite 270  
Houston, TX 77030

## Senior Research Investigator/ Drug Metabolism

Searle, a leader in pharmaceutical research development and marketing, has an excellent opportunity for a Senior Research Investigator in the Drug Metabolism Section.

The candidate we select will use his/her skills to design and conduct metabolism and pharmacokinetic studies in animals and man. This position is also responsible for preparing reports that interpret data for internal use as well as for submission to regulatory agencies. As a member of project teams, the Senior Research Investigator will integrate his/her research with that of his/her colleagues in Product Discovery, Clinical and other

departments within Research and Development.

The qualified applicant will have a PhD in Pharmacology or related field and 2-5 years of experience in drug metabolism/pharmacokinetics.

Investigate the opportunities Searle has for you. Send your resume, in strict confidence to:

Searle, Human Resources, Dept. PB1, 4901 Searle Parkway, Skokie, IL 60077.

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## PEPTIDE CHEMISTS

MAGAININ SCIENCES INC. is a rapidly developing Pharmaceutical company. We are seeking scientists at all levels to expand our drug research and development efforts in one of our core technologies:

### PEPTIDE CHEMISTRY

Opportunities are at the B.S., M.S., postdoctoral training and Ph.D. staff levels. Candidates should have interest and experience in:

- (•) structure activity studies and/or
- (•) isolation, purification and characterizations of natural peptides.

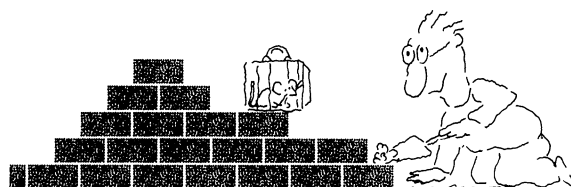
Candidates with good organic/medicinal chemistry background will also be considered. If interested, please submit curriculum vitae, description of research interests and salary requirements to:

**Dr. W. Lee Maloy**  
Director of Peptide Chemistry  
Magainin Sciences Inc.  
5110 Campus Drive  
Plymouth Meeting, PA 19462

Magainin Sciences Inc. is located in new state-of-the-art facilities in suburban Philadelphia. We offer excellent salaries, benefits and the opportunity to change the future of therapeutics.

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## CHAIRMAN DEPARTMENT OF BIOMATHEMATICAL SCIENCES

The Mount Sinai School of Medicine invites applications or nominations for the position of Chairman of the Department of Biomathematical Sciences. We are seeking an energetic, innovative scientist to develop new strengths and establish the Department as a leading center in modern Biomathematics. Candidates must have an active research program, a successful record in graduate teaching, administrative experience, and demonstrated leadership abilities.

The Chairman is expected to strengthen the research efforts of the Department, enhance grant support, develop and maintain doctoral and postdoctoral educational programs, and foster collaborations within the Institution.

Send curriculum vitae, names of 3 references, a statement of research interests and goals for the Department to:

**Chairman, Biomathematical Sciences  
Search Committee, Box 1102, Mount Sinai  
School of Medicine, One Gustave L. Levy  
Place, New York, NY 10029.**

*An Affirmative Action/ Equal Opportunity  
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**Donald J. and Dorothy Jaffar Professor  
Chairman of the Department of Urology  
Wayne State University School of Medicine,  
Urologist-in-Chief,  
The Detroit Medical Center Hospitals  
Harper-Grace Hospitals,  
Hutzel Hospital,  
Huron Valley Hospital  
Chief of Urologic Oncology  
The Detroit Medical Center Institute**

Wayne State University School of Medicine and Harper-Grace Hospitals, Detroit Receiving Hospital, Hutzel Hospital and Huron Valley Hospital, all member institutions of The Detroit Medical Center, are seeking an outstanding clinician and administrator to serve as the Donald J. and Dorothy Jaffar Professor and Chairman of the Department of Urology at the Wayne State University School of Medicine, and Urologist-in-Chief of the Detroit Medical Center. The individual we seek is expected to plan, manage, and implement academic and clinical programs that 1) enhance the professional and scholarly growth of a multi-institutional department, 2) provide leadership to the faculty and attending staff at the various hospitals and 3) continue and expand upon the system hospitals' commitment to the community. Applicants should have attained national and international stature in the field of Urology, and demonstrate a record of excellence in scholarship, clinical service, and academic administration, and have had at least five years' experience working in an academic medical center setting in a position of senior responsibility. Significant clinical and research accomplishments in cancer of the urinary tract will be required for this appointment as Chief of Urologic Oncology in The Detroit Medical Center Cancer Institute. A strong basic science background is desirable. The incumbent will have overall responsibility for medical students, and post-graduate education in Urology at the Wayne State University School of Medicine, be expected to promote the development of research programs of appropriate breadth and depth for a university department of national and international stature and to organize the Urologic resources of the system hospitals toward a broadly based academic and clinical unit.

Interested applicants should forward a letter of application and updated curriculum vitae by May 4, 1990, to:

**Robert E. Mack, M.D., Professor of Medicine and Assistant Dean  
Wayne State University School of Medicine  
University Health Center  
4201 St. Antoine, Detroit, Michigan 48201**

*The Detroit Medical Center Hospitals and Wayne State University are  
equal opportunity employers.*



Wayne State University



The University  
of  
British Columbia

## HEAD

### Department of Microbiology

Applications and nominations are invited for the position of **HEAD OF THE DEPARTMENT OF MICROBIOLOGY** at the University of British Columbia. The Microbiology Department which has a long record of excellence in microbiology, immunology and molecular biology research, consists of 16 faculty members and 56 graduate students. The Department is responsible for teaching and administering an undergraduate program which graduates 55-60 students per year. The Department is involved in collaborative teaching and research ventures with the Biotechnology Laboratory, Departments of Zoology, Botany and Oceanography and Faculties of Medicine, Dentistry and Pharmaceutical Science.

Research facilities include well equipped laboratories, a large scale fermentation unit and a modern animal unit. Automated DNA sequencing, DNA synthesis and protein sequencing facilities are available.

Candidates should have a Ph.D. degree in a relevant discipline, a record of outstanding, well funded research in microbiology or immunology and the ability to work with scientists representing diverse areas.

Inquiries, nominations and applications should be directed to the **Search Committee Chairman, Dr. Barry C. McBride, Faculty of Science, 6270 University Boulevard, Vancouver, B.C. CANADA V6T 1W5.** Closing date for applications is **June 30, 1990.** Salary will be commensurate with qualifications and experience. In accordance with Canadian Immigration requirements priority will be given to Canadian citizens and permanent residents of Canada. The University of British Columbia is committed to the Federal Government's employment equity program and encourages applications from all qualified individuals.

## BIOTECHNOLOGY



### REAGENTS MARKETING MANAGER

Cetus Corporation, a leader in biotechnology, has an opening in our PCR Division for a Reagents Marketing Manager.

This individual will be responsible for the development and implementation of marketing plans for existing and new reagents for the Perkin-Elmer Cetus Instruments joint venture. You will assist with strategic planning, and identification and evaluation of new product opportunities through market research, design and analysis.

Candidates must have a BS/MS (+) in Molecular Biology and strong experience in tactical marketing and strategic planning in the reagents business or related business.

Cetus offers an excellent benefits package along with a collaborative environment that encourages career and personal growth. For consideration, please send your resume to: Cetus Corporation, Box 90062/SR, 1400 Fifty-Third Street, Emeryville, CA 94608. We are an Equal Opportunity Employer.

## Patent Examiners



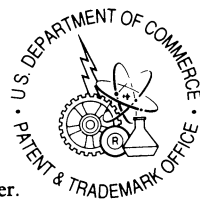
You could play a vital role in the advancement of microbiology as a Patent Examiner at the U.S. Patent and Trademark Office. You'll continue a 200-year old tradition of fostering American innovation by evaluating patent applications involving recombinant DNA, molecular and cellular immunology, molecular genetics, microorganisms, cell biology, cell culture, fermentation, enzymology and clinical chemistry.

This challenge requires a minimum of a four-year degree in Molecular Biology, Biochemistry, Immunology, Enzymology, Embryology, Protein Chemistry, Microbiology or Cell Biology.

A PhD or MS degree with relevant research experience preferred. A BS degree with significant research experience will be considered. These research areas would be beneficial: DNA cloning, protein chemis-

try, gene expression, sequencing techniques, muteins, hybridoma technologies, monoclonal antibody applications, mammalian or plant cell lines, cell culture, immunossays, hybridization techniques, fermentation, enzymatic reaction, diagnostics, and automation of clinical analysis.

We offer a salary commensurate with experience, complete benefits and an excellent location in Arlington, VA. Contact the Patent & Trademark Office, Office of Personnel, One Crystal Park, Suite 700, Washington, D.C. 20231. Or call toll-free: 800-368-3064 or (703) 557-3631 in the Washington, D.C. area. An equal opportunity employer.



## PROTEIN/PEPTIDE CHEMISTRY

### BECOME A VITAL LINK IN AN INNOVATIVE DEVELOPMENT PIPELINE

#### Associate Senior Investigator

SmithKline Beecham Animal Health, a research-driven organization distinguished by the calibre of its people and the complexity of its projects, seeks an individual capable of contributing new ideas within a creative R&D group. You'll develop analytical technologies for characterization of proteins and peptides as well as develop chemical syntheses and methods for the same.

The qualified candidate is an articulate Ph.D. Protein/Peptide Biochemist or Chemist, or has the equivalent experience, and is familiar with the characterization of recombinant and natural proteins. Background in classical protein micro-sequencing techniques, protein isolation, HPLC, and electrophoresis is required. An understanding of mass spectrometry and gas liquid chromatography as well as organic chemistry would be desirable.

Our compensation and benefits package, including our relocation package, are among the best in the industry. For consideration, send a resume with salary requirement in confidence to: Jim Beyea, SmithKline Beecham Animal

Health, 1600 Paoli Pike, West Chester, PA 19380. We are an equal opportunity employer. M/F/H/V. Our site is a Clean Air Zone

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Animal Health

## POSITIONS OPEN

### CHAIRMAN, DEPARTMENT OF GENETICS CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE

Applications and nominations are being requested for the Henry Payne Willson Chair of the Department of Genetics. Substantial funding is available to significantly expand the school's commitment to molecular, developmental, and human genetics. The present department includes a core of seven faculty, transgenic mouse, *Drosophila* genetics and flow cytometry facilities, as well as instrumentation for protein sequencing and DNA and peptide synthesis. The department maintains a close affiliation with the Division of Medical Genetics in Pediatrics. Graduate students and postdoctoral fellows are funded from several interdepartmental NIH training grants, an NIH-funded M.D./Ph.D. program, as well as other sources.

Applications or nominations should be submitted to: Dr. Richard W. Hanson, Genetics Search Committee, Department of Biochemistry, Case Western Reserve University School of Medicine, 2040 Adelbert Road, Cleveland, OH 44106.

*Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*

### CHAIRPERSON DEPARTMENT OF ANATOMY

Applications and nominations are currently being accepted for this position. Candidates must have an earned doctorate, proven effectiveness in teaching (preferably with medical students), a record of scholarly productivity, and demonstrated managerial skills. They should have the ability to provide leadership in both teaching and research. They should have knowledge of, and interest in, the development of a problem-solving based, clinically oriented anatomy course. Fluency in Spanish is desirable, but not required.

The Ponce School of Medicine (PSM) is an LCME accredited, privately funded, U.S. Medical School located on the south coast of Puerto Rico. The Anatomy Department is currently teaching gross anatomy, histology, and embryology and a multidisciplinary course in neurosciences. PSM also has a developing graduate (Ph.D.) program in basic medical sciences. Curriculum vitae, names of at least three references, and a statement of teaching philosophy should be submitted to: Dr. Adalberto Mendoza, Chairperson of Pathology, Ponce School of Medicine, P.O. Box 7004, Ponce, PR 00732.

*PSM is an Equal Opportunity Employer and encourages applications from women and minorities.*

### UNIVERSITY OF HONG KONG LECTURESHIP IN CLINICAL PSYCHOLOGY

Applications are invited for a lectureship in clinical psychology in the Department of Psychology. The appointee should possess a doctoral degree and must have relevant clinical training and experience. Special knowledge and interest in the following would be an advantage: Chinese society, especially Hong Kong; psychological assessment and psychodiagnosis; neuropsychology; and research methods in clinical psychology. The appointee will be required to participate in the teaching and supervision of graduate students; some undergraduate teaching will also be required.

Annual salary (superannuable) (under review) is on an 11-point scale: HK\$233,700 to HK\$390,600 (approximately US\$1 = HK\$7.80 as of 7 March 1990). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 15% of gross income. Children's education allowances, leave, and medical benefits are provided; housing or tenancy allowances are also provided in most cases at a charge of 7.5% of salary.

Further particulars and application forms may be obtained from: Appointments (37683), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, U.K., or from: Secretary, Faculty of Social Sciences, University of Hong Kong, Hong Kong. Applicants are additionally requested to provide, in respect of their major research area, a short descriptive title, a brief summary of the work they have undertaken, and the direction in which their work is proceeding. Closes 1 June 1990.

## POSITIONS OPEN

### DIRECTOR OF CYTOGENETICS

The Department of Pathology and Laboratory Medicine at the Medical University of South Carolina is seeking a director of the cytogenetics laboratory. The candidate should be Board-eligible or -certified by the American Board of Medical Genetics. In addition to directing the full service clinical cytogenetics laboratory, the candidate will be expected to develop an independent research program and to participate in the teaching of medical and graduate students. Faculty rank and salary will be commensurate with experience. Send curriculum vitae with names of three references to: **A. Julian Garvin, M.D., Ph.D., Professor and Chairman, Department of Pathology and Laboratory Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

*An Equal Opportunity/Affirmative Action Employer.*

### ENVIRONMENTAL SCIENTIST/ SYSTEMS ECOLOGIST

ASCI Corporation seeks an environmental scientist/systems ecologist to be located Athens, Georgia, to provide technical support at the U.S. Environmental Protection Agency (USEPA) Environmental Research Laboratory. The position responsibilities will include providing technical assistance to the USEPA in the areas of human and ecological risk assessment, assisting in program development, and in providing training to federal and state personnel. Advanced degree(s) and/or experience is required in environmental science, systems ecology, or a closely allied field. Contact: **Dr. James L. Martin, P.E., ASCI Corporation, c/o USEPA, College Station Road, Athens, GA 30613. Telephone: 404-546-3180.**

### FACULTY POSITION

A faculty position is available in the Anesthesiology Division at Boston City Hospital. Qualifications required include Board certification, 1 to 2 years of research, extensive experience (5 to 7 years) in obstetrics, pediatrics, and ENT anesthesia. Ability and desire to teach at all levels of anesthesia training. Diverse background in internal medicine and pathology desirable. Please contact immediately: **Dr. Dean Crocker, telephone: 617-534-4107. An Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.**

**FACULTY POSITION.** The Cornell University Medical College, Department of Psychiatry, has an immediate opening for a tenure-track clinical psychologist. The position will involve broad teaching responsibilities and research-related activities. A wide knowledge of assessment techniques, including a thorough understanding of neuropsychological tests, is essential. Applicants with teaching experience at the graduate level (Ph.D.'s/M.D.'s) and demonstrated research interests will be given preference. Salary is competitive. Correspondence should be directed to: **David Clayson, Ph.D., Department of Psychiatry/Psychology, The New York Hospital-Payne Whitney Psychiatric Clinic, 525 East 68th Street, New York, NY 10021. The Cornell University Medical College is an Equal Opportunity Employer.**

### UNIVERSITY OF DURHAM DEPARTMENT OF PHYSICS

Applications are invited for two posts: first, for a **LECTURESHIP IN PHYSICS**, and second, for a **TEMPORARY LECTURESHIP IN PHYSICS** (who will be primarily concerned with research).

Candidates for both posts should have research interests and experience in one or more of the following fields: astronomy, astrophysics, atomic theory, cosmology, elementary particle theory, or solid-state physics.

Salary for the lectureship will be on the Lecturer Grade A scale (£10,458 to £15,372 per annum) but may exceptionally be on the bottom half of the Lecturer Grade B scale (£16,014 to £17,328 per annum). The temporary lectureship will be for a fixed period of 3 years and the salary will be on the Lecturer Grade A scale (£10,458 to £15,372 per annum).

Further particulars may be obtained from: **Personnel Officer, Old Shire Hall, Durham, DH1 3HP England, telephone: 091-374-4687**, to whom applications (three copies, including a full curriculum vitae and the names of three referees) should be sent not later than 30 April 1990.

Please quote **reference 511** for lectureship and/or **512** for temporary lectureship.

## Osteoporosis Research



Pfizer Central Research is seeking an innovative scientist with expertise in developing *in vivo* models of bone metabolism to join its osteoporosis research group. The osteoporosis group at Pfizer consists of molecular biologists, pharmacologists and medicinal chemists. We view osteoporosis as an important research area for the company.

You must have a minimum of 3 years post-doctoral experience studying bone metabolism in industrial or academic laboratories. Individuals with industrial and/or project coordination experience are particularly encouraged to apply.

Pfizer Central Research offers an excellent opportunity for professional recognition and advancement in a stimulating research environment. We also offer a competitive salary/benefits package and an opportunity to live in an attractive Connecticut shore community.

If you would like to be considered for this position as part of a project team of eminent scientists, please send your resume to: **Dr. Jerry K. Larson, Assistant Director, Employee Resources, Pfizer Central Research, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.**

## Director of Business Development Biotechnology

Worldwide pharmaceutical/health care company seeks a PhD Scientist with excellent academic credentials and a strong track record in directing biotechnology research. This is a unique opportunity to apply your scientific acumen and make a significant impact on the success and future growth of this world-class, \$3-billion, research-based organization.

Key responsibilities involve identifying and evaluating opportunities for acquisition and strategic alliances that are global in scope, as well as developing collaborative arrangements within the academic research community. Success in this position requires self-direction, imagination, and critical thinking skills.

We offer an excellent salary, quality benefits and an attractive suburban location in the Northeast. For consideration in strict confidence, send resume and salary history to our advertising agency: **Deutsch, Shea & Evans, Inc., 485 Fifth Avenue, Box 822, New York, NY 10017. We are an equal opportunity employer.**



# **T**HROUGH THE STRENGTH OF ITS PEOPLE,

Genetics Institute has advanced the science of biotechnology with significant breakthroughs. In EPO, we have developed a pure product for treating anemias. GM-CSF stimulates the growth of blood cells aiding the fight against infection, cancer and AIDS. Factor VIII holds the promise of a safer clotting product for the hemophiliac community. The development of these complex products, a high degree of innovation, and an international reputation for excellence have brought Genetics Institute to the forefront of biopharmaceutical research, development and commercial manufacturing.

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## **Scientist Cellular Immunology**

We are currently seeking a scientist to contribute to our research involving cytotoxic t-lymphocytes. This individual will collaborate on creative research examining the immune response of cytotoxic cells. A Ph.D. degree and related experience in cellular immunology, the purification of cytokines or experience in cellular biology is required.

## **Scientist Vascular Biology**

We are seeking applicants who will be expected to contribute substantially in the cell biology of cell surface membrane molecules involved in adhesion and extravasation. The ideal candidate will have a Ph.D. and several years of experience in cell biology, recombinant DNA methodologies, or receptor purification. In addition, we are seeking applicants whose primary responsibility will be to evaluate the interaction between blood cells and vascular endothelium using *in vivo* myocardial infarction models. This will include having broad interaction with an interdisciplinary group of scientists. A Ph.D. in Physiology, Pharmacology, or a related discipline, along with relevant experience is required.

## **Scientist - Immunology**

We seek a scientist (Ph.D.) with established experience in the area of Immune Response and either Molecular Biology or Immunochemistry to join our Immunology Laboratory. This highly interactive and visible position will interface with scientists from many disciplines within the company, and will participate in projects/publications on a wide variety of topics.

## **Scientists Research Pharmacology**

Several opportunities are available for scientists (Ph.D.) to play an integral role in our growing Clinical Development group. Candidates should have a solid background in *in vivo* pharmacology, biochemistry, morphology, and/or physiology. Experience with vascular biology/assessment of models in arteriosclerosis or experience with assessment of bone/cartilage models would be a plus.

## **Scientist Protein Biochemistry**

We currently have an opening for a protein biochemist to work with our microbiology group at our research facility in Cambridge, Massachusetts. The job entails providing protein purification and characterization support to the research group for the development of new protein pharmaceuticals. The ideal candidate will have a minimum of two years of postdoctoral or industrial experience in protein purification and characterization, with a working knowledge of basic molecular biological techniques.

## **Scientist Developmental Biology**

A position currently exists for a recent Ph.D. to study protein regulatory factors and cellular mechanisms affecting determination and fate in early development. Experience in experimental manipulation and biology of either Mammalian or Amphibian embryology required. Experience with Molecular Biological techniques preferred. This position allows the opportunity to apply biotechnology to classical developmental biology problems.

For the previous positions, please forward your resume to Sheri Rist, Genetics Institute, 87 CambridgePark Drive, Cambridge, MA 02140.

*A number of positions are available immediately in the Mammalian Cell Culture Group within the Product Development Department at Genetics Institute. This is a multifaceted group currently consisting of six laboratories: four Cell Biology, one Biochemical Engineering and one Molecular Biology, where the goal is to create and characterize recombinant mammalian cell lines and develop cell culture processes suitable for large scale production of heterologous proteins.*

## **Lab Head Molecular Biology**

A position is available immediately for an individual with a Ph.D. in Molecular Biology or a related discipline plus several years of relevant post-doctoral experience. Applicants are invited to establish a Molecular Biology Laboratory where activities will focus on development and characterization of recombinant mammalian cell lines and expression vectors suitable for large scale applications. The ideal candidate would have experience in molecular cloning, expression vector construction, techniques for extraction, purification and analysis of RNA and DNA and analytical techniques to monitor the biosynthesis of heterologous proteins.

## **Scientist Molecular Biology**

A position is available immediately for an individual with a Ph.D. in Molecular Biology or a related discipline. Applicants are invited to join a laboratory where activities will focus on the development of innovative approaches by which to characterize a number of different recombinant mammalian cell lines. The ideal candidate will have experience in molecular genetic techniques such as genomic library construction, PCR amplification, cDNA cloning, DNA sequencing, site directed mutagenesis, in situ hybridization and pulse field gel electrophoresis.

*Positions are also available in our Analytical Development, Process Engineering and Pharmaceutical Development Laboratories.*

## **Scientist Analytical Development**

Several positions are available in our Analytical Development group for individuals with BS/MS/Ph.D. degrees in chemistry, biochemistry, biology or biophysics. The group is responsible for the development and/or validations of methods for trace contaminants, as well as bioanalytical, bio and immunological assays. Experience with GC/MS, and techniques used in protein chemistry, electrochemistry, or carbohydrate chemistry is preferable for some of the positions.

## **Scientist Pharmaceutical Development**

An opportunity exists for a scientist with experience in protein structure, function or stabilization to take responsibility for the dosage form development of therapeutic proteins such as lymphokines, bone-growth proteins, and monoclonal antibodies. Candidates with Ph.D. degree and a strong background in biochemistry, physical biochemistry or pharmacy, as well as excellent communication skills and a strong publication record are encouraged to apply.

## **Scientist Cell Biology**

A position is available immediately for an experienced mammalian cell biologist, within a group whose mission is to provide investigative and process development support for the manufacture of human therapeutic proteins. The incumbent will join a laboratory where the focus is directed towards cell culture medium development, cell line characterization, and investigation of cell growth and recombinant product expression. The ideal candidate will have an MS or Ph.D. in Cell Biology or a related discipline and five years of relevant experience in a research or an industrial setting. Expertise in areas of cell metabolism, growth factors, and/or flow cytometry would be very helpful.

## **Scientist Cell Biology**

A position is available immediately for an individual with an MS or Ph.D. in Cell Biology/Biochemistry or a related discipline plus several years of relevant laboratory experience. Applicants are invited to join a laboratory involved in an active applied research program directed towards the development of cell lines and cell culture processes suitable for the large scale production of homologous and heterologous proteins. The ideal candidate should have experience in the development of mammalian cell lines expressing monoclonal antibodies and a general interest in the effect of physiological and environmental conditions on the expression of secreted proteins by mammalian cells.

## **Lab Head Process Engineering**

This individual would coordinate the function of the Process Technology laboratory in three areas; validating the present processes in development or manufacturing; providing assistance to Process Engineering on Manufacturing problems and scale up; exploring possible alternative purification methods in conjunction with Process Engineering. These would include alternative resins and purification equipment, and purification monitoring and control. Ph.D./MS Chemical Engineering or Biochemistry and 4+ years' experience in chromatography with large scale experience.

## **Research Associate Pharmaceutical Development**

We are seeking several highly motivated BS/MS level Research Associates for our Pharmaceutical Development Lab. Candidates will have a background in protein biochemistry and a working knowledge of techniques used in studying protein structure and function, such as HPLC, ELISA, IEFs, and SDS-PAGE.

**For the previous positions, please forward your resume to Peter Lasky, Genetics Institute, One Burt Road, Andover, MA 01801-5901.** An equal opportunity employer

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# **Genetics Institute**

## IMMUNOLOGISTS

The Food and Drug Administration's Center for Drug Evaluation and Research is actively seeking physicians with specialty training and experience in immunology to serve as medical reviewers in the drug development and approval process for new drug products in the Division of Anti-Viral Drug Products at FDA's headquarters location in Rockville, Maryland.

Desirable qualifications include: 1) training in immunology, specifically T cell, macrophage, NK cell, cytokine biology and immune regulation; and, 2) experience with interpretation of assays of HIV infection on immune function and regulation would be particularly helpful. Candidates must be U.S. citizens or resident aliens eligible for U.S. citizenship within four years. Graduates of foreign medical schools must have ECFMG certification.

Starting salary for civil service positions ranges from \$58,149 to \$80,113 plus a physicians comparability allowance of \$4,000 to \$20,000 and an excellent benefits package. U.S. Public Health Service Commissioned Corps positions are also available. Opportunities for professional development include further training, research and/or clinical activities. Interested candidates should send a detailed curriculum vitae with bibliography and selected publications (if available) to: Physician Recruitment Manager, FDA/DHRM, 5600 Fishers Lane, Room 4B-17.0, Rockville, MD 20857

FDA IS AN EQUAL OPPORTUNITY EMPLOYER

## GENETICIST

Roswell Park Cancer Institute seeks applicants who have demonstrated excellence in human molecular genetics. This tenure-track position requires establishing a vigorous, independent, grant-supported research program; directing graduate research; and participating in teaching graduate courses in the faculty member's area of interest. Preference will be given to those interested in molecular characterization of human inherited disease, including cancer, and in the development of technology for mapping the human genome. Active participation in an Institute-wide genetics research program on Human Genome Mapping and Function will be encouraged. Academic appointment will be in the Roswell Park Division of the State University of New York at Buffalo. Rank, salary, start-up funds and space will be commensurate with qualifications. Superb core facilities are available. Please send curriculum vitae, a research summary, and the names of three references to:

Thomas B. Shows, Ph.D.  
Chairman, Department of Human Genetics  
Roswell Park Cancer Institute  
Elm and Carlton Streets, Buffalo, New York 14263

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PARK**  
CANCER INSTITUTE

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## POSITIONS OPEN

### UNIVERSITY OF HONG KONG READER/SENIOR LECTURER/ LECTURER IN PHYSIOLOGY

Applications are invited for a readership/senior lecture-ship/lectureship in physiology. Applicants should have higher degrees in physiology or medical or dental degrees. Those applying for readership/senior lecture-ship should have considerable teaching and administrative experience together with significant research contributions in basic medical science. The appointee will be required to participate in teaching physiology to medical, dental, and speech and hearing sciences students.

Annual salaries (superannuable) are on the scales: Reader, HK\$378,960 to HK\$503,520 (9 points); senior lecturer, HK\$363,300 to HK\$488,040 (9 points); lecturer, HK\$233,700 to HK\$390,600 (11 points). (Approximately US\$1.00 = HK\$7.80 as at 12 March 1990.) Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 15% of gross income. Children's education allowances, leave, and medical benefits are provided in most cases at a charge of 7.5% of salary; housing is also provided.

Further particulars and application forms may be obtained from: **Appointments (37667), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, U.K.**, or from: **Appointments Unit, Registry, University of Hong Kong, Hong Kong. FAX: 852-8582549. Closes 18 May 1990.**

### FACULTY POSITION MATERNAL/FETAL MEDICINE

The Department of Obstetrics and Gynecology at the University of Tennessee College of Medicine is actively recruiting a full-time **PERINATOLOGIST** for its Division of Maternal/Fetal Medicine. The teaching hospital serves as the Tertiary Care Center for 80 counties in West Tennessee, East Arkansas, North Mississippi, Southern Missouri, and a part of Kentucky; an area with approximately 40,000 deliveries per year. About 50% of the pregnancies delivered at the center are high risk pregnancies. Perinatal services each year include over 20,000 outpatient visits, 7,800 deliveries, and over 1,400 patients seen in Reproductive Genetics. Excellent opportunity to participate in teaching in a Board-approved fellowship program and collaborate in ongoing research in clinical perinatology, critical care in obstetrics, and ultrasound and prenatal diagnosis. Board-eligibility/certification in maternal/fetal medicine is required. Interested candidates should send curriculum vitae to: **Baha M. Sibai, M.D., Division of Maternal/Fetal Medicine, University of Tennessee, Memphis, 853 Jefferson Avenue, Room E-102, Memphis, TN 38103. Telephone: 901-528-5660. The University of Tennessee, Memphis, is an Equal Employment Opportunity/Affirmative Action/Title IX/Section 504 Employer.**

**HEMATOPATHOLOGIST.** AP/CP hematopathology-certified to pursue research in hematologic malignancies, teach medical and graduate students and residents, and share responsibilities in laboratory management. Full-time, tenure-track faculty position as **ASSOCIATE DIRECTOR, Hematology Division, Department of Pathology.** Requirements: at least 2 years of hematology fellowship and/or experience in morphology, cytochemistry, and immunophenotyping of leukemias and lymphomas. Annual salary is \$68,000 or commensurate with rank and experience. Send curriculum vitae with three references to: **Robert Harrison, M.D., Department of Pathology, The University of Texas Medical Branch (UTMB), Galveston, TX 77550. UTMB is an Equal Opportunity M/F/V/H Affirmative Action Employer. UTMB hires only individuals authorized to work in the United States.**

**MICROBIOLOGIST.** A position is available for conducting original research on the molecular biology of pentachlorophenol (PCP)-degradation by a *Flavobacterium* sp. Detailed duties include developing procedures to assay the enzymes involved in PCP-degradation, purifying the proteins, and isolating and characterizing the related genes. The position requires a Ph.D. in microbiology plus 1 year of postdoctoral experience in using molecular biology as an approach to the study of biodegradation of xenobiotics. Experience with protein purification and recombinant DNA techniques is required. A good publication record is desired to prove the ability to conduct original research. The job location is at Moscow, Idaho, and salary is \$26,000 per year. Send résumé to: **Job # ID 1265460, 317 Main Street, Boise ID 83735.**

## POSITIONS OPEN

### MARINE SCIENCE

Possible 1-year sabbatical replacement in a strong, six-person Marine Science Program may be available for September 1990 at the **ASSISTANT PROFESSOR** or **INSTRUCTOR** level. Teaching load of 12 hours per week will include survey of ocean life, marine plants, and a general education course of one's own choosing. Ph.D. required for assistant professorship. Master's degree required for instructorship. Starting salary range of \$22,619 to \$31,620 may be higher depending on qualifications, experience, and increases in the New Jersey Higher Education Compensation Plan. Stockton is a public, 4-year, liberal arts college with 4000 FTE students located in coastal, rural South Jersey. The Marine Science Program maintains a 33-foot research vessel and a fleet of small boats at its marine science station located 15 miles away on Brigantine Island. Screening will begin on 15 May 1990. Send letter of application, résumé, and three letters of reference to: **Dr. Donald Plank, Dean, Faculty of Natural Sciences and Mathematics, Stockton State College, Pomona, NJ 08240. Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. R003508.**

### MOLECULAR/CELLULAR BIOLOGY OREGON STATE UNIVERSITY (OSU)

A tenure-track position is available in the Department of Zoology in the broad area of molecular cell biology. Although the appointment is likely to be at the **ASSISTANT PROFESSOR** level, more senior individuals will also be considered. We particularly encourage applications from individuals in the areas of molecular evolution, neurobiology, development, and genetics who will complement current faculty strength. Responsibilities include instruction of an undergraduate cell biology course and the development of a graduate course in the appointee's area. The appointee will also be expected to conduct a vigorous program of externally funded research and to participate in the department's graduate program. Please send your curriculum vitae, a statement of research accomplishments and goals, selected reprints, and three letters of recommendation to: **Dr. Paul Roberts, Department of Zoology, 3029 Cordley Hall, Oregon State University, Corvallis, OR 97331-2914. Applications review will start on 1 May 1990 and will continue until the position is filled.**

Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of dual-career couples.

### MOLECULAR NEUROBIOLOGY POSITIONS FOR SENIOR, STAFF, AND FOREIGN FELLOWS NATIONAL INSTITUTE FOR DRUG ABUSE

The Laboratory of Molecular Neurobiology, National Institute for Drug Abuse (NIDA)/Addiction Research Center (ARC) wishes to enhance efforts in: (i) cloning drug and neurotransmitter receptors, (ii) characterizing neurotransmitter gene expression to transgenic mice, and (iii) understanding mechanisms of neurotransmitter gene regulation in brain. Approaches include: *Xenopus* oocyte expression and sib selection of cDNAs, transgenic mice, protein purification and antibody production, and liquid binding. Salary and benefits are competitive. Applicants with expertise and interests in molecular biology, molecular neurobiology, *Xenopus* expression systems, and behavioral, biochemical, and genetic characterization transgenic animals are encouraged to apply to:

**George R. Uhl, M.D., Ph.D.**

**Laboratory of Molecular Neurobiology**

**Box 5180**

**Baltimore, MD 21224**

The ARC is an Equal Opportunity/Affirmative Action Employer, M/F/H/V. ADAMHA is smoke free.

**PHARMACOLOGY. ASSISTANT, ASSOCIATE, or FULL PROFESSOR.** St. George's University School of Medicine in Grenada is dedicated to quality medical education and has an opening for a person with experience teaching medical students. Rank and salary commensurate with qualifications. Recently retired persons will be considered. Send letter of application, curriculum vitae, and names and addresses of three references to: **Dr. D. L. Brown, P.O. Box 7, St. George's, Grenada, West Indies; or, preferably, FAX above information to: 809-444-4823.**



## POSITIONS OPEN

### MOLECULAR GENETICIST/ PSYCHOPHARMACOLOGIST

Mayo Clinic/Mayo Medical School invites applicants for a **FACULTY POSITION** in the Department of Psychiatry and Psychology, in close collaboration with members in the Department of Pharmacology and/or the Department of Biochemistry and Molecular Biology. Candidates should have primary interests in major psychiatric disorders and be pursuing these interests with the methods of molecular genetics and/or molecular pharmacology. M.D. and clinical training in psychiatry are desirable but not required. Mayo will provide generous space and start-up funds in addition to an attractive package of salary and benefits. Academic rank will be determined by qualifications; established investigators are also encouraged to apply. Submit curriculum vitae with names and addresses of three or more references to: **Toshihiko Maruta, M.D., Chairperson of Search Committee, Department of Psychiatry and Psychology, Mayo Medical School, Rochester, MN 55905.** An Equal Opportunity/Affirmative Action Employer.

**PHYSICAL OCEANOGRAPHER.** The National Ocean Service has a vacancy in a GS 7/9/11/12 career ladder. Duties include: conducting field measurements, data analysis, applying circulation models to estuaries, and preparing information products. Quality ranking factors include: sound knowledge of physical oceanography, familiarity with oceanographic data collection techniques, ability to apply advanced mathematics to data, working knowledge of automatic data processing, and ability to manage complex data sets. Submit SF171 to arrive no later than 30 April 1990 to: **NOAA/NCASC Personnel Division, 11420 Rockville Pike, Rockville, MD 20852.** For a copy of Vacancy Announcement NC/N-90-100-NJH, telephone: 301-443-8105. Additional technical information can be obtained from: **Dr. Henry R. Frey, telephone: 301-443-8510.**

**PHYSICIST.** Research and development of semiconductor and metallic materials focused on TEM investigations; develop semiconductor manufacturing process to reduce defect formation; analyze materials to determine influence of radiation on materials; provide input of mechanical testing and structural characteristics to NDE technology. Ph.D. in material science plus minimum of 2 years of experience in job offered or 2 years of experience in TEM, optical microscopy, SEM, x-ray diffraction, microelectronic device processing techniques (oxidation, CVD, ion-implantation, etching, diffusion, annealing); mechanical testing required. Must also know semiconductor device physics, thin-film technology, diffraction physics, crystallography, dislocation theory, thermodynamics of solids, diffusion in solids, solid-state phase transformations, and mechanical behavior of materials. Salary: \$3900 per month. Job site/interview: Sunnyvale, California. Send ad with résumé to: **Job #WS 14142, P.O. Box 9560, Sacramento, CA 95823-0560,** no later than 30 April 1990.

### PSYCHIATRIST COCAINE TREATMENT UNIT

The Department of Psychiatry, Duke University Medical Center, seeks a psychiatrist for expansion of the Alcoholism and Addictions Program, to develop a cocaine treatment unit. Excellent training in stimulant drug abuse management and active research interests with evidence of ability to obtain external funding are expected. Rank and salary will be based on experience. Contact in writing: **Bernard J. Carroll, M.D., Box 3950, Duke University Medical Center, Durham, NC 27710.** Duke University is an Equal Opportunity Employer.

Minneapolis: **PSYCHIATRIST.** The Psychiatry Service at the Minneapolis Department of Veterans Affairs Medical Center is seeking Board-certified or Board-eligible psychiatrists in a variety of positions including acute inpatient psychiatry and outpatient care, etc. In addition to clinical competence, demonstrated academic orientation (teaching, research, and publications) is desired. Salary range: \$77,000 to \$95,000 per year commensurate with training and experience. All staff psychiatrists at the Minneapolis Veterans Affairs have faculty appointments in the University of Minnesota Medical School, Department of Psychiatry. Responses to: **Office of the Chief of Psychiatry (116A), Department of Veterans Affairs Medical Center, One Veterans Drive, Minneapolis, MN 55417.** Telephone: 612-725-2037.

## RESEARCH SCIENTIST CELL BIOLOGY

**Amgen** has emerged as an industry leader in the discovery and development of human therapeutic products through the application of biotechnology. Our continued growth has created an opportunity for a Ph.D. level scientist to develop programs for the functional analysis of growth factors and receptors. The successful candidate will also participate in collaborative research efforts for the isolation and expression of novel factors with therapeutic potential.

Candidates for this position must have a Ph.D. in mammalian cellular physiology or somatic cell genetics and a minimum of 2 years' post-doctoral experience in cellular regulation by extracellular/intracellular factors and transmembrane signaling mechanisms. Familiarity with cloning, cell sorting and isolation of metabolic and drug resistant mutants in various cell lines is essential. Experience in developing ligand-receptor assays is desirable.

**Amgen** is committed to maintaining an environment that encourages scientific excellence and creativity. We offer an excellent compensation and benefits package, including equity opportunities. If you share our dedication to the future of biotechnology and would like to be a part of a company that places a high priority on its human resources, please send a C.V., in confidence, to:

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### VACANCY NOTICE

The **International Council for Research in Agroforestry (ICRAF)** is an autonomous, non-profit international research council governed by an international board of trustees with equal representation from developed and developing countries. The Council derives its operational funds from voluntary contributions from various bilateral, multilateral and private donor organizations. The objectives of the Council are to initiate, stimulate and support research leading to more sustainable and productive land use in developing countries through the integration or better management of trees in land-use systems. The Council has outreach programmes in several countries in Africa and ICRAF scientists from different nationalities work in partnership with national agricultural research systems.

The Council is now seeking to fill a new senior position to be based at its Headquarters in Nairobi:

### EDITOR/WRITER

The successful candidate will be responsible for creating and developing article ideas; writing self-generated articles; editing scientist-written articles; as well as writing, editing and supervising all aspects of the production and distribution of the quarterly ICRAF magazine, the Annual Report, news releases, and features services; edit technical copy for monographs, conference proceedings, and other ICRAF publications. Additional responsibilities will include participation in and occasionally organizing public affairs activities.

### Qualifications

The candidate must have a Master's degree in journalism or communications, preferably in agricultural or scientific writing/editing, with at least 8 years relevant experience (or a Bachelor's degree with at least 10 years experience) including sound knowledge of magazine/book production (preferably with "desk-top" software). Degrees in agriculture, forestry or environmental science plus proven excellent writing/editing ability will also be considered. Ability to function in cross-cultural and multi-disciplinary environments and an excellent command of English is essential. Working knowledge of French is desirable.

### CONDITIONS OF EMPLOYMENT

This is an international staff position and initial appointment will be for a period of two years, beginning, if possible, in May/June 1990. The salary and benefits are competitive and include cost of living allowance, housing and security allowance, personal car, children's education allowances, annual home leave travel and a comprehensive retirement and health package.

Applicants for the above position are invited to send their curriculum vitae and complete salary history, with names and addresses of three referees (including telephone and telex/fax numbers, if available) to:



**ICRAF**

**Director General**  
**ICRAF**  
**P.O. Box 30677**  
**NAIROBI, KENYA**  
**FAX No. (254-2) 521001**

so as to reach him not later than 27 April 1990.

Only candidates under serious consideration will be contacted.

## THE POPULATION COUNCIL CENTER FOR BIOMEDICAL RESEARCH

Applications are invited for two positions at the **STAFF SCIENTIST, SCIENTIST OR SENIOR SCIENTIST** level. Eligible applicants should have a strong record of research accomplishments in the fields of molecular biology, cell biology, protein biology, protein chemistry or biochemical endocrinology. Research areas of interest in the laboratories of the Center for Biomedical Research include, but are not limited to, (i) structure and function of hormone receptors; (ii) regulation of gene expression; (iii) mechanisms of signal transduction; (iv) autocrine and paracrine regulation of testicular cell function; (v) mechanisms of fertilization; and (vi) immunobiology of gametes.

While we are particularly interested in individuals working in the areas of reproductive physiology and molecular endocrinology, quality of research and ability to complement the current scientific staff are of primary interest.

Starting funds for equipment, personnel support and supplies are available. Successful candidates are expected to develop independently funded and active research programs that will contribute to the overall scientific efforts of the Center for Biomedical Research. Rank and salary will be based on academic and research record. Excellent benefits. Minimum requirements include Ph.D. or M.D. degree (or equivalent) and at least three years of relevant postdoctoral training. Review of applications will begin immediately and continue until the position is filled.

Forward curriculum vitae, statement of research interests and plans, representative publications, and names and addresses of at least three references to: **Dr. C. Wayne Bardin, Vice President and Director, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.**

*The Population Council is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

## National Institutes of Health NEUROCHEMISTRY FELLOWSHIP

National Institutes of Health, Public Health Service, Fellowship in Neurochemistry of Alzheimer's disease and Down syndrome. The Laboratory of Neurosciences at the National Institute on Aging, NIH, invites application for a Fellowship position to study the neurochemistry of Alzheimer's disease, Down syndrome and experimental models for these disorders. Postmortem brain tissue, as well as animal brain tissue, are examined. Cerebrospinal fluid is examined for peptides, neurotransmitters and their metabolites, and other biological substances, including hexoses, polyols and amino acids. Brain tissue is examined for these substances, as well as for the distribution and local concentration of appropriate receptors. The applicant should be experienced in appropriate analytical techniques, e.g., HPLC, GC-MS, enzymatic assays, RIA, as applied to human or animal biological fluids and tissue, and should have a strong background in biochemistry. Position is located in Bethesda, MD and salary is commensurate with qualifications. Send Curriculum Vitae and 2 letters of reference to:

**Dr. Stanley I. Rapoport, Chief  
Laboratory of Neurosciences  
National Institutes of Health  
Building 10, Room 6C-103  
9000 Rockville Pike  
Bethesda, MD 20892**



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## Cell and Molecular Biology POSTDOCTORAL POSITIONS

Postdoctoral positions are available at the Worcester Foundation for Experimental Biology to study cellular and molecular aspects of development. These positions are supported by an NIH Training Grant and individual investigator awards. The faculty and their research interests are:

**Earl Baril:** Enzymology of eukaryotic DNA replication.

**William Crain:** Gene expression in sea urchin and mouse embryos.

**Grant Fairbanks:** Biochemistry of red cell membrane shape determination; mechanism of sperm surface maturation.

**John Goodchild:** Properties and therapeutic applications of synthetic RNA enzymes (ribozymes).

**F. Rob Jackson:** Molecular genetic studies of behavior and the nervous system in *Drosophila* including studies of biological rhythms and neurotransmitter systems.

**Daniel Kilpatrick:** Developmental regulation of neuropeptide gene transcription and function in spermatogenic and somatic cells.

**Elizabeth Luna:** Structure and regulation of cytoskeleton-membrane attachment during cell motility, adhesion and phagocytosis.

**Clare O'Connor:** Regulation of protein stability during gametogenesis.

**Thoru Pederson:** Gene transcription and RNA processing.

**Joel Richter:** Gene expression during early *Xenopus* development.

**Alonzo Ross:** Nerve growth factor receptor, structure and function roles in normal and transformed cells.

**Greenfield Sluder:** Timing and molecular control of mitotic events during early development.

**Richard Vallee:** Biochemical, immunological and molecular biological analysis of microtubule motors and MAPS.

**Samuel Wadsworth:** Structure and function of *Drosophila* oncogenes, growth factors and receptors.

**Yu-li Wang:** Assembly and dynamics of actin and myosin in living cells.

**George Witman:** Molecular basis for flagellar movement; control of sperm maturation and capacitation.

**David Wolf:** Diffusion and control of membrane regionalization; sperm maturation and capacitation.

**Paul Zamecnik:** Synthesis of modified oligonucleotides for chemotherapy.

**Carol Ziomek:** Membrane structure and cell polarity in early mouse development.

**Send curriculum vitae and names of references to the faculty member(s) of interest, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. USA**



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# DRUG DISCOVERY/ CELLULAR AND MOLECULAR IMMUNOLOGY

SmithKline Beecham, a worldwide leader in pharmaceutical research, is seeking an Associate Director to head our Immunology Group within the Department of Cell Sciences. The successful candidate will be responsible for: directing a research group of 15-20 immunologists whose efforts are focused on the pharmacological manipulation of immune function, with emphasis on autoimmunity, transplantation, and leukocyte adhesion molecules; initiating and managing new drug discovery efforts directed at molecular targets associated with immune disorders; and providing core immunological expertise to existing drug discovery programs, to other departments with overlapping interests, and to compounds undergoing preclinical and clinical evaluation.

We are interested in hearing from scientists with:

- Ph.D. and/or M.D. with 5-8 years postdoctoral experience in Cellular/Molecular Immunology
- Industrial experience in drug discovery (highly desirable)
- Established track record in scientific excellence as evidenced by publications and/or patents
- Managerial experience and excellent communications skills

Located in a state-of-the-art facility in suburban Philadelphia near Valley Forge, PA, we offer a challenging and stimulating environment in which to excel. For confidential consideration, please submit your C.V. to Nancy Hasson, H0133, SmithKline Beecham Pharmaceuticals, P.O.

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We're a growing \$3-billion pharmaceuticals innovator recognized worldwide for our dedication to discovery. Outstanding opportunities exist in our Genetic Technology Development group to work on challenging projects involving lymphokine factors, regulation of secondary metabolites, and molecular evaluation of enzymes in biotransformations.

Positions require a BS/MS in Microbiology/Biochemistry or Molecular Biology, and 0-2 years' experience in an academic or industrial research setting. Must be familiar with modern Molecular Biology/ Biochemical procedures necessary to conduct research in gene cloning and enzyme analysis. Good understanding of microbial physiology essential.

We offer a generous salary and benefits package and a corporate culture that fosters professional growth and satisfaction. For prompt, confidential consideration, send your resume to: Mr. M. Urdanick, Schering-Plough Corporation, 1011 Morris Avenue, Union, NJ 07083. An equal opportunity employer.

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We are a \$3-billion pacesetter in the health care industry. Our strengths in pharmaceutical research to prolong human life extends to our equal concern with animal health. To qualify for this position, based in Lafayette, NJ, you must have a doctorate in Chemistry, Analytical Chemistry or Biochemistry together with 0-3 years in the design and execution of residue, bioequivalence and animal metabolism studies. A strong background in analytical biochemistry and expertise in analytical methods development and instrumentation are essential.

We offer an excellent salary and benefits, and the recognition to stimulate your growth. For prompt consideration, please send your resume to: Mr. R. Blackburn, Schering-Plough Research, P.O. Box TX-89-15, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

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## ELECTROPHYSIOLOGIST - PhD

For the Cardiovascular Drug Discovery Group involved with new ethical pharmaceuticals, we seek a PhD with post-doctoral experience in electrophysiology in-vitro. Knowledge of single-cell recording and patch clamp techniques would be highly desirable.

## INFORMATION SCIENTIST

To facilitate our ongoing R&D, we seek an Information Scientist who can implement competitive intelligence systems and conduct detailed biomedical/chemical literature and patent searches using several systems (Dialog, CAS on-line, etc.). We would prefer candidates with an advanced degree in a Biological or Physical Science and Library/Information Science, coupled with at least 3 years related technical information background. The ability to evaluate new software will be a plus.

Bring us your capabilities, self-motivation and expertise. We'll provide the career advantages of a Fortune 50 organization. Norwich, NY is located in a scenic area approximately one hour from 3 major cities, and offers many outdoor activities and cultural advantages. Qualified professionals are invited to submit resume WITH POSITION OF INTENT INDICATED to: Mr. Terry M. Stark - ES, Norwich Eaton Pharmaceuticals, Inc., 17 Eaton Avenue, Norwich, NY 13815.

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## POSITIONS OPEN

### PLANT MOLECULAR BIOLOGIST

The Competitive Research Grants Office of the U.S. Department of Agriculture (USDA) seeks a qualified scientist to serve as **ASSOCIATE PROGRAM MANAGER** for grants administration in the areas of plant genetics, plant molecular biology, and plant growth/development. Candidates must have a B.S. or higher degree with major study in botany, plant physiology, or a closely related discipline and must have had at least ten semester hours of plant physiology. In addition the candidate must have a Ph.D. or equivalent experience directly related to molecular biology.

Closing date is 14 May 1990. For information on the position, contact: Dr. Anne Datko, Competitive Research Grants Office, CSRS/USDA, Room 323 Aerospace Building, Washington, DC 20250-2200. Telephone: 202-475-4871. For information on application procedures/forms, contact: Ms. Kathy Asmussen, personnel staff specialist, telephone: 202-475-4811. USDA is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** Available in reproductive neuroendocrinology for studies on prolactin regulation. Research encompasses gene expression regulation to in vivo control mechanisms. Experience in biochemistry desired. Send résumé and names of three references to: Dr. James Voogt, Department of Physiology, Kansas University Medical Center, 39th and Rainbow, Kansas City, KS 66103. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** To collaborate in the detailed immunological and molecular biological analysis of malarial antigens in the host cell cytoplasm. Experience in standard recombinant DNA techniques such as gene cloning, hybridizations, and sequencing is necessary. Experience with expression systems is useful. The 3-year position is available immediately. Send curriculum vitae and addresses of two references to: Dr. Harold Stanley, Agouron Institute, 505 Coast Boulevard South, La Jolla, CA 92037.

**POSTDOCTORAL POSITION.** In tumor immunology to study the mechanisms of regulation of tumor cell immunogenicity and sensitivity to the natural cell-mediated cytotoxicity. Study includes investigation of the effect of UV irradiation on the immunobiological properties of tumor cells, DNA, gene expression, free oxygen radical protective mechanisms. Experience in molecular biology and biochemistry is essential. Send curriculum vitae and two letters of reference to: Dr. Elieser Gorelik, Pittsburgh Cancer Institute, 3343 Forbes Avenue, Pittsburgh, PA 15213. An Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** A 2-year position is available immediately to isolate and characterize liver stem cells as targets for gene therapy using rodent and human model systems. Candidates must have Ph.D. with background in embryology, developmental biology, or pathology. Experience in immunochemistry and tissue culture preferred. Salary: to \$30,000. Send letter of interest, names of two references, and curriculum vitae to: Dr. Ron Faris, Rhode Island Hospital-Brown University, Medical Oncology, 593 Eddy Street, Providence, RI 02902. An Affirmative Action/Equal Opportunity Employer.

### NMR SPECTROSCOPY 2D BIOLOGICAL STUDIES

A **POSTDOCTORAL POSITION** is available involving the design and analysis by 2D NMR of peptide models for studying protein folding and macromolecular recognition. Position involves management of a new Bruker 500-MHz AMX system. Applicants should have experience with two-dimensional or solid-state NMR. The projects involve a multidisciplinary group using peptide synthesis, molecular modeling, mutagenesis, and crystallographic approaches. Excellent facilities are available. Applicants should send curriculum vitae and letters of reference to:

Dr. Peter S. Kim  
Whitehead Institute and Department of Biology  
Massachusetts Institute of Technology  
Nine Cambridge Center  
Cambridge, MA 02142



## POSITIONS OPEN

**POSTDOCTORAL POSITIONS, BACTERIAL PATHOGENESIS.** Available 1 July 1990 to study molecular genetics of cholera toxin, heat-labile enterotoxins or Shiga-like toxins of *E. coli*, or diphtheria toxin. Projects emphasize analysis of toxin structure and function, regulation of toxinogenesis, molecular epidemiology, and vaccine development. Methods include DNA cloning/sequencing, transcriptional analysis, site-directed mutagenesis, protein engineering, and immunochemistry. Recent Ph.D. graduates with strong backgrounds in genetics, molecular biology, microbiology, or biochemistry are encouraged to apply. Send curriculum vitae and names of three references to: **Dr. Randall K. Holmes, Department of Microbiology, c/o Civilian Personnel Office, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION TOXICOLOGY RESEARCH

A unique postdoctoral position is available in basic/applied toxicology research. The Toxicology Research Laboratory conducts applied research projects for government and industry which include a variety of animal species and methodologies. Basic research opportunities include, but are not limited to organophosphate insecticide toxicity, metabolism and stress-toxicity interactions. The successful candidate will evenly divide his/her time between basic and applied research. Salary range is mid-\$20,000's to low \$30,000's depending on experience. Send curriculum vitae and three references with telephone numbers to: **Dr. Barry S. Levine, Director, Toxicology Research Laboratory, Department of Pharmacology (M/C 868), University of Illinois at Chicago, Box 6998, Chicago, IL 60680.** Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITIONS NEUROPSYCHOBIOLOGY

Two challenging postdoctoral positions are available to study in vivo neurotransmitter mechanisms relating to cocaine reward and craving. Ideal candidates will have extensive experience with in vivo voltammetry or in vivo brain microdialysis, HPLC, and behavioral methodologies. We seek motivated individuals who can work independently, yet interact well with a large group of scientists studying the neurobiology of drug abuse. Salary is commensurate with NIH guidelines and level of experience. Funding is available for 3 years, subject to satisfactory performance. The positions are available now, but delayed starts are possible for outstanding candidates. Send curriculum vitae and names of three references to: **Dr. Eliot L. Gardner, Program in Brain and Behavior, Department of Psychiatry, Forchheimer Building G-49, Albert Einstein College of Medicine, 1300 Morris Park Avenue, New York, NY 10461.** Affirmative Action/Equal Opportunity Employer.

### CELLULAR AND MOLECULAR PHYSIOLOGY THE UNIVERSITY OF IOWA COLLEGE OF MEDICINE

Two **POSTDOCTORAL POSITIONS** are immediately available. The first position is to study the structure-function interactions of insulin and IGF-1 receptor subunits in mediating ligand-dependent activation of the receptor tyrosine-specific protein kinase [*J. Biol. Chem.* 264, 21450 (1989)]. Candidates interested in biochemistry, cell biology, and/or molecular biology are encouraged to apply. A second position to examine the insulin-dependent regulation of glucose transporter expression is available. Specific projects include molecular analysis of transcriptional and post-transcriptional control, as well as developmental regulation in transgenic mice [*Nature* 340, 72 (1989)]. Experience in molecular and/or cell biology is preferred. Please send curriculum vitae, statement of research interests, and three letters of recommendation to:

**Dr. Jeffrey Pessin  
Department of Physiology  
6-532 BSB**

**The University of Iowa College of Medicine  
Iowa City, IA 52242**

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

13 APRIL 1990

# BIOMEDICAL RESEARCH

The staff of Program Resources, Inc. (PRI) make important biomedical breakthroughs at the National Cancer Institute's Frederick Cancer Research Facility (NCI-FCRF) every day. Currently, we are developing new research efforts in **HUMAN GENE MAPPING AND AIDS IN VITRO DRUG SCREENING** and are seeking individuals with expertise as:

**SCIENTIST/POSTDOCTORAL FELLOW:** M.D./Ph.D. in biochemistry/chemistry; experience in *insitu* hybridization desirable; will prepare human genetic and physical maps.

**POSTDOCTORAL FELLOW:** Ph.D. in virology/molecular biology; will investigate mechanisms of antiviral drug interactions with HIV.

**TECHNICIANS:** M.S./H.S. in biological sciences of chemistry; computer skills & lab experience

required; will prepare human genetic maps.

You'll work in a campus-like setting in Frederick, MD near Baltimore and Washington, D.C. Plus, PRI will reward your expertise with a salary commensurate with your credentials and an interactive fringe benefits program, including insurances, relocation assistance and a 401(K) savings plan. For consideration, please forward your CV in confidence to: **Barbara Norton-Gill, Technical Recruiter, Program Resources, Inc., NCI FCRF, P.O. Box B, Frederick MD 21701.**



**PROGRAM  
RESOURCES,  
INC.**

EOE M/F

## POPULATION DYNAMICS RESEARCH SCIENTIST/SENIOR RESEARCH SCIENTIST

The Division of Fisheries employs about 170 scientists and support staff investigating the biology, ocean productivity, population dynamics of commercial and potentially commercial fish, crustaceans and molluscs. The Division also provides information for the development of management strategies for Australian marine fisheries. Major laboratories are located in Hobart, Perth, Brisbane and Jervis Bay and the Division owns a well equipped 66m fishery research vessel.

**THE PROGRAM:** The appointee will join an established program conducting research into the population dynamics, assessment and management of major Australian fisheries. The program currently includes projects directed towards the global southern bluefin tuna fishery, the tropical multispecies fishery off Australia's Northwest Shelf, and the trawl fishery on the continental shelf and slope off Southeast Australia. A unifying theme across projects is the development of length-based assessment methods and the evaluation of alternative fishery management strategies. The appointee will be an active participant in this research.

**THE POSITION:** The successful applicant will lead a team investigating the population dynamics, assessment and management of southern bluefin tuna. Assessments of the status of the stock and its likely future trends made within this research project are a primary source of scientific advice for the international and domestic management of southern bluefin tuna. The appointee will play a major role in scientific and management discussions.

**QUALIFICATIONS:** Applicants should hold a PhD or equivalent qualifications in quantitative zoology, applied mathematics or a related field. They should have a strong background and demonstrated experience in the mathematical and computer modelling of natural resource or biological systems, and a superior record of research achievement. Post-doctoral experience in the population dynamics, assessment and management of exploited fish stocks would be a considerable advantage. An ability to communicate research findings effectively to a wide variety of audiences is essential.

**Salary range Aus \$32,471 per annum to Aus \$47,070 per annum.**

Appointment will be indefinite (tenured) with Australian Government Superannuation and will be located at the Marine Laboratories Headquarters in Hobart. CSIRO provides assistance with relocation costs.

Further information including job description and selection criteria can be obtained from Dr G.P. Kirkwood by Fax Australia (002) 24 0530, telephone Australia (002) 20 6222 or telex AA57182.

Applications are to be framed against the selection criteria, stating relevant particulars, including details of qualifications and experience and nominating at least two professional referees, quoting reference No. FC90/4 and addressed to:

The Chief  
Division of Fisheries  
CSIRO Marine Laboratories  
G P O Box 1538  
HOBART TASMANIA 7001  
AUSTRALIA

by 11 May 1990

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER



## POSITIONS OPEN

**POSTDOCTORAL ASSOCIATE.** Positions for cell/developmental biologists interested in the role of extracellular matrix functions in mesenchyme morphogenesis, utilizing sea urchin primary mesenchyme or craniofacial, limb, or precardiac mesenchyme as model systems. Send résumé and three letters of reference to: **Dr. Michael Solursh, Department of Biology, University of Iowa, Iowa City, IA 52242.** The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL ASSOCIATE.** Ph.D. with expertise in molecular biology to study in vitro assembly of bacteriophage  $\phi 29$  of *Bacillus subtilis*. Appropriate backgrounds include phage biology, virology, protein chemistry, DNA or RNA studies, x-ray crystallography, and electron microscopy. Salary: \$20,000 per year for 2 years; available immediately. Send curriculum vitae and three letters of reference to: **Dwight Anderson, Microbiology and Oral Science, University of Minnesota, Minneapolis, MN 55455,** or call: 612-624-7989. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

**POSTDOCTORAL POSITION, MOLECULAR BIOLOGY.** Challenging position available immediately at the U.S. Department of Agriculture, Agricultural Research Service, to develop a transformation system for inserting genes into spiroplasmas (wall-less prokaryotes) associated with insects. Background in bacterial molecular biology is desired. Salary: \$29,890. Send application, curriculum vitae, and letters of reference to: **Dr. Kevin Hackett, IPL, Building 011A, Room 214, Beltsville, MD 20705.** For details, call: 301-344-4325. An Equal Opportunity Employment Employer.

**POSTDOCTORAL POSITIONS.** In cellular neurobiology available immediately in a training program involving 18 faculty members from the Departments of Physiology, Anatomy, Biological Chemistry, Biology, Ophthalmology, and Pharmacology. Emphasis is on biophysical, biochemical, molecular, and ultrastructural approaches to membrane function, and on the development, function, and plasticity of synapses. Send curriculum vitae and names of three references to: **Dr. Alan D. Grinnell, Ahmanson Laboratory of Neurobiology, Brain Research Institute, University of California, Los Angeles, Los Angeles, CA 90024.** An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOW

Postdoctoral position beginning 1 September 1990 for M.D./Ph.D. or Ph.D. in a laboratory studying mechanisms of receptor clustering and molecules that influence postsynaptic structures. Send curriculum vitae and three letters of reference to: **Donald Payan, Howard Hughes Medical Institute, U-426, University of California, San Francisco, San Francisco, CA 94143.**

### POSTDOCTORAL FELLOWSHIPS IN NEUROBIOLOGY

The Department of Anatomy at Boston University has postdoctoral positions available, beginning July 1990 or later, for scientists interested in training in structural aspects of neurobiology. All participating faculty have funded research programs involving methods such as electron microscopy, histochemistry, receptor binding, neuropharmacology, electrophysiology, cell culture, and behavioral testing in a variety of neuronal systems. For further information, contact: **Dr. Alan Peters, Chairman, Department of Anatomy, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.** Equal Opportunity Employer.

The Animal Reproduction and Biotechnology Laboratory at Colorado State University has openings for **POSTDOCTORAL FELLOWS.** Successful applicants will conduct research in the areas of signal transduction in reproductive tissues of males and/or females; regulation of reproductive hormone gene expression; oocyte maturation, sperm capacitation, and in vitro fertilization; gamete and zygote experimental models will be used to address specific research problems. Send curriculum vitae and three letters of recommendation to: **Dr. Gordon D. Niswender, Department of Physiology, Colorado State University, Fort Collins, CO 80523.** Positions will be filled by 1 September 1990. Colorado State University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**POSTDOCTORAL FELLOW.** Available immediately to study entry/killing pathways of bacterial toxins and tumor necrosis factor. Experience in protein-membrane research, molecular biology, or biophysics/biochemistry. Send résumé and three references directly to: **Dr. B. J. Wisniewski, Department of Microbiology and the Molecular Biology Institute, University of California, Los Angeles, CA 90024.** See *Science* 246, 1165 (1989).

**POSTDOCTORAL FELLOWSHIP.** Molecular neurobiology position available in the Laboratory of Molecular Psychiatry at Yale University to study the transcriptional regulation of neuronal gene expression by psychotropic drugs. Candidates for this 2- to 3-year position should have an M.D. and/or Ph.D. and experience in molecular biological techniques. Position available fall of 1990. Send résumé to: **Drs. Ronald S. Duman and Eric J. Nestler, Laboratory of Molecular Psychiatry, Yale University School of Medicine, 34 Park Street, New Haven, CT 06508.**

### POSTDOCTORAL FELLOW

Postdoctoral position in molecular biology of extracellular matrix available immediately to study structure and regulation of cartilage-specific genes. Recombinant DNA skills are required and experience with eukaryotic expression vectors and transfection methodology is desirable. The laboratory is modern and well equipped and opportunities exist in the department for interdisciplinary studies involving protein sequencing, monoclonal antibody production, electron microscopy, and biophysical measurements. Salary is competitive. Send curriculum vitae with names, addresses, and telephone numbers of three references to:

**Kurt Doege, Ph.D.  
Research Unit, Shriners Hospital  
for Crippled Children and  
Department of Biochemistry and Molecular Biology  
Oregon Health Sciences University  
3101 S.W. Sam Jackson Park Road  
Portland, OR 97201**

**POSTDOCTORAL FELLOWSHIP** in systems and behavioral neuroscience, Brown University. The Graduate Program in Neural Science at Brown University announces an opening for a postdoctoral fellow in systems and behavioral neuroscience, funded by an NIMH training grant. The graduate program is strongly interdisciplinary, and the research of the 16 training faculty integrates anatomical, physiological, pharmacological, behavioral, and theoretical approaches to understanding the nervous system. Applicants should be U.S. citizens and have earned the Ph.D. in neuroscience, psychology, biology, or related field, or an advanced medical degree (M.D., D.O., or D.V.M.). Salary is consistent with NIH guidelines. The position is available 1 July 1990 and the closing date for applications is 31 May 1990. Send curriculum vitae, statement of research interests, and three letters of recommendation to: **Professor James A. Simmons, Director, Graduate Program in Neural Science, Department of Psychology, Brown University, Box 1853, Providence RI 02912.** Brown University is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE

Two positions will be available 1 July 1990 for individuals who wish to participate in team research in the study of hypoxic, anoxic, and toxic injury. These studies involve the use of digitized video and confocal microscopy to measure alterations in cytosolic ion status, membrane lipid order and topography, and enzyme activities in single intact living cells during the injury process. Ph.D. with background in biology, biophysics, computer science, astronomy, or mathematics required. Practical experience in computer software (UNIX, Fortran, FORTRAN) and mathematical modeling helpful. Salary will be commensurate with experience. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Brian Herman, Department of Cell Biology and Anatomy, School of Medicine, University of North Carolina at Chapel Hill, CB# 7090—108 Taylor Hall, Chapel Hill, NC 27599—7090.** An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

## POSITIONS OPEN

**POSTDOCTORAL FELLOW.** Research on immunologic and molecular genetic aspects of human lymphoproliferative disorders and lymphoma in a novel model system utilizing immunodeficient (SCID) mice engrafted with human lymphoid cells. M.D. or Ph.D. is required, with experience in molecular biology, cellular immunology, or basic lymphoma/leukemia research. Send curriculum vitae and three letters of reference to: **Dr. Neil R. Cooper or Dr. Martin J. Cannon, Immunology Department (IMM19), Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.** Telephone: 619-554-8162.

**CELLULAR IMAGING, POSTDOCTORAL FELLOWSHIP.** A postdoctoral position is available 1 July 1990 in cellular imaging using UV and visible confocal microscopy. Optical tweezers will be used in conjunction with confocal microscopy to control and image intracellular organelles or probes. Candidates should feel comfortable with optics and computers. Competitive salary. Please send letter of interest, curriculum vitae, and names of three references to: **Dr. David Clapham, Department of Pharmacology, Mayo Foundation, Rochester, MN 55905.** An Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE RESEARCH ASSOCIATE

Rensselaer Fresh Water Institute, a research center of Rensselaer Polytechnic Institute, seeks qualified Ph.D. level researchers for limnological studies at the postdoctoral and research associate levels. Filling of these positions is contingent on availability of research funding. Specific areas include aquatic botany, aquatic macroinvertebrates, microbial ecology, and aquatic chemistry. Send curriculum vitae and names of three references to:

**Dr. Charles W. Boylen, Director  
Rensselaer Fresh Water Institute  
Rensselaer Polytechnic Institute  
Troy, NY 12180-3590  
Telephone: 518-276-6757**

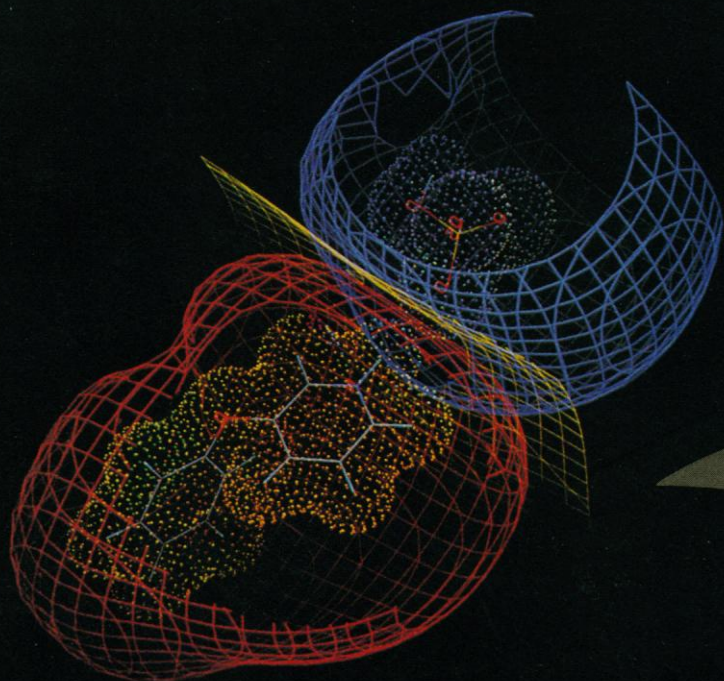
An Affirmative Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE, \$18,000 per year, 8 a.m. to 5 p.m., 40 hours per week.** Master's degree in physics/optical instruments engineering or equivalent with curricular emphasis in ultrashort pulse laser technology. Will design and use mode-locked dye lasers, Q-switched and mode-locked solid lasers, fast electronics, and autocorrelators. Will conduct research using ultrashort pulse lasers, such as femtosecond dye-lasers and solid-state lasers. Will construct short pulse dye-lasers and amplifier systems for short pulses. Must have 2 years of experience in the job offered. Submit résumés to: **New Mexico Department of Labor, 501 Mountain, N.E., Albuquerque, NM 87102. CC #1001. Job Order #276218.**

**RESEARCH ASSOCIATE.** For university in central Ohio. Design and prototyping of an electronic system which will be able to reject unwanted data on-line, that is, data obtained during their acquisition phase of the e-P collider called HERA; assembly and test of the barrel calorimeter; develops computer software for data analysis and interprets the physics results and publishes them in professional journals. No experience required in job described but applicants will qualify with the following: Ph.D. physics and a minimum of 2½ years of research experience in experimental high energy physics; at least 1 year of the 2½ years of research experience working with radial drift chambers and time projections chambers. Forty hours per week, 8 a.m. to 5 p.m., Monday to Friday; \$26,100 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (no calls) to: **C. Bussard, JO#1219061, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

**ASSOCIATE RESEARCH SCIENTIST.** Position immediately available. A Ph.D. in protein chemistry with experience in peptide and protein purification; HPLC, Western and Southern blotting, raising antibodies, and gel electrophoresis is sought. Salary commensurate with experience. Apply to: **Graeme L. Hammond, M.D., Department of Surgery, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510.** Affirmative Action/Equal Opportunity Employer.





## We're putting a lot of thought into development.

The quest for memory-improving drugs is one of the most critical areas of medical research today. And Parke-Davis is once again in the forefront. At our pharmaceutical research laboratories in Ann Arbor, Michigan and Morris Plains, New Jersey, we're spending millions of dollars on research to help conquer today's fourth leading killer, Alzheimer's Disease.

But that's not all we're doing. Our \$200 million annual commitment to large-scale drug discovery is stronger than ever and spans 11 major therapeutic areas that include: anticancer agents, cardiovascular and respiratory diseases, and disorders of the central nervous system.

As dynamic world leaders in preclinical and clinical R&D, we're concentrating on speeding up the drug delivery process by applying the most sophisticated computerized technology and working hard to advance the state-of-the-art in CADD. Within our ultra-modern research environment, we encourage independent research, stimulate self-development and reward responsible risk-taking. Parke-Davis is where you can put your best ideas to work and make memorable contributions to the art of research.

### Clinical Scientist

contributes to protocol design, budget negotiation and the identification of potential field investigators as well as in the monitoring of ongoing trials within the region for investigational drugs in all therapeutic categories. Successful candidates should possess the equivalent of graduate-level training (MS, PhD, Pharm D, etc.) in life sciences with a sound understanding of several therapeutic areas. Prior pharmaceutical industry experience, particularly in clinical research is highly desirable. Outstanding oral and written communication skills are essential.

### Neuroscientist

the successful applicant will join an experienced multidisciplinary team of dedicated scientists working on novel treatments for human neurodegenerative diseases including Alzheimer's Disease. Candidates will possess a PhD in a neuroscience related field. Experience in assessment of the biological and molecular changes accompanying neuronal death and degeneration, excellent written and oral communication skills, and ability to work as part of a team are required. Preference will be given to candidates experienced with aberrant processing of neuronal proteins in the central nervous system.

### Associate Scientist

responsible for the development and characterization of "in vivo" animal models of arthritis. The position requires a BS/MS degree with five years of post-college laboratory experience in the areas of bone/cartilage/connective tissue. Experience with histopathological and radiological techniques for the assessment of joint damage is essential. Surgical skills and experience working with small animals are desirable.

### Biostatistician

involves working with physicians, designing experiments, analyzing data from clinical trials and preparing comprehensive statistical reports of the results. Candidates will possess a recent PhD or equivalent in statistics. Strong consulting and communication skills, and good working knowledge of a scientific computer language and/or the statistical package SAS are required.

To explore your future on the frontier of medical research, send your resume or curriculum vitae, in confidence, to: Mr. Robert Gaskin, Parke-Davis, 2800 Plymouth Road, Ann Arbor, MI 48105. An equal opportunity employer.

**PARKE-DAVIS**  
Pharmaceutical Research Division Warner-Lambert Company

**WARNER  
LAMBERT**



## RESEARCH ASSOCIATE OPPORTUNITIES

**Amgen** has emerged as an innovative leader in the discovery, development, and marketing of human therapeutics through applied biotechnology. We recognize that our future success depends upon continued commitment to scientific excellence. As a result of this commitment and our rapid growth, we have several opportunities for BS and MS level scientists who wish to share **Amgen's** commitment to scientific excellence. Those opportunities currently being recruited for are listed below.

### BIOCHEMISTRY Dept. #507

Contributions will be made to on-going research efforts in the identification of novel hematopoietic growth factors as well as comparing and characterizing recombinant and natural proteins. Candidates must have a BS or MS in Cell Biology, Biochemistry, or a related discipline and a minimum of two years' experience in mammalian cell culture and general biochemical techniques. Familiarity with immunological and biological assays for the quantification of biological activity is essential.

### MOLECULAR BIOLOGY Dept. #509

Our Molecular Biology and Immunology Groups have several opportunities available with responsibilities including assay development, cDNA cloning, and general molecular biology as they relate to a number of on-going research projects. A BS or MS in Molecular Biology, Biochemistry, or a related discipline and a minimum of two years' experience in molecular and cellular biology are required. Experience in basic gene cloning and mammalian tissue culture is essential. Familiarity with a variety of bioassays, cDNA cloning, and gene expression in prokaryotic and/or eukaryotic systems is highly desirable.

**Amgen** offers a stimulating and challenging research environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. If you have the necessary skills and qualifications and would like to be a part of an organization that places a high priority on its human resources, please send a resume or CV, specifying the appropriate Dept. #, in confidence, to:

**AMGEN, INC.**  
Recruitment, Dept. # (please specify)  
Amgen Center  
Thousand Oaks  
CA 91320-1789

Equal  
Opportunity  
Employer

# AMGEN

## OPPORTUNITIES AT BOEHRINGER MANNHEIM

### ONE DISCOVERY DESERVES ANOTHER

*Boehringer Mannheim is a rapidly growing leader in the field of Medical Diagnostics, Biochemicals and Medical Research. This leadership has been attained through emphasis on quality and team effort. Due to our growth, we are seeking individuals for the following positions:*

#### RESEARCH INVESTIGATOR

*Supervisory position responsible for the development of leading edge diagnostic reagent calibrator and necessary controls. The successful candidate will have a Ph.D. in Biochemistry, familiarity with synthetic and biological polymer reactions, experience in formulation development and a strong background in both organic and protein chemistry. Three years of industrial or academic experience is also required. Interested candidates please respond to Dept. P.L.*

#### SR. SCIENTIST-BIOCHEMISTRY

*Position requires a B.S. degree in Chemistry with 5-6 years experience or M.S. degree with 3-4 years experience in protein chemistry reaction and method development. Formulation experience and polymer knowledge are desired. Position responsible for creative and independent planning and execution of experiments and evaluation and analysis of results. Please respond to Dept. P.L.*

#### SCIENTIST- ORGANIC CHEMISTRY

*Minimum requirements include a BS or BA degree in Chemistry with 2-3 years experience in organic synthesis. Some knowledge of nucleic acid or peptide chemistry and HPLC desirable but not essential. Exciting opportunity for qualified person to enter the field of DNA diagnostics. Please respond to Dept. N.B.*

*At **Boehringer Mannheim**, we offer an excellent compensation and benefit program including a 401(K) as well as an excellent relocation package. Qualified applicants should send a resume with cover letter, including salary history, for confidential consideration. Please designate position of interest by department code. For further positions not listed above, please call our job line at (317) 845-7035, or write to: **Boehringer Mannheim**, 9115 Hague Road, P.O. Box 50100, Indianapolis, IN 46250. An Equal Opportunity Employer.*

**BOEHRINGER  
MANNHEIM**  
DIAGNOSTICS





## Cell Biologist

Monsanto Company's Corporate Research Division has an immediate opening for a Cell Biologist in their Health Sciences Department.

The successful candidate will join a group exploring the regulation and nutritional dependence of various aspects of cellular physiology. Culture systems will be developed to promote the maintenance of tissue specific properties *in vitro*, and the cultured cells will be utilized as models of *in vivo* physiology and as sources of biomaterial.

Candidates should possess a Ph.D. degree with post-doctoral research training in Cell Biology, Pharmacology/Physiology, Biochemistry or equivalent. A minimum of 6 years' experience with a variety of mammalian cell culture systems is desirable. A strong analytical background and familiarity with serum-free, defined cell cultures is desirable.

For consideration, please send resume and references to: **T.S. Skelton, Supervisor, Human Resources; MONSANTO COMPANY; Mail Zone 02H; 800 N. Lindbergh Boulevard; St. Louis, MO 63167.** Monsanto is an Equal Opportunity Employer M/F/H/V.

Careers for people with ideas

# Monsanto

## BIOCHEMIST

### Careers In A World Class R&D Community!

Unilever Research U.S., Inc., the American research facility of Unilever, a leading worldwide consumer products company, has an immediate opening for a Biochemist in our Biochemistry and Microbiology Section located in Edgewater, New Jersey.

The selected candidate will contribute actively to our biodegradation program in the household products area. Qualified applicants should have a Ph.D. in Biochemistry or a related area of chemistry. Experience in the isolation/characterization of enzyme systems is critical. Familiarity with microbial ecosystems and physiology would be beneficial. The ability to interact with chemists for the development of structure-activity relationships is a definite plus. This is a career opportunity which requires excellent interpersonal, organizational and communication skills.

As a member of the Unilever team, you will work with state-of-the-art instrumentation in an exciting, growth-oriented organization, and will also have the opportunity to interact with scientists associated with Unilever's European Research Laboratories. If you wish to be considered for this position, please send your resume to: Mr. Jim Conti, Manager, Employee Relations.



**Unilever Research U.S., Inc.**

45 River Road, Edgewater, New Jersey 07020

An Equal Opportunity Employer M/F

## DEOXYOLIGONUCLEOTIDE ANALOG DEVELOPMENT AND EVALUATION

**Amgen** has emerged as an innovative leader in the discovery, development, and marketing of human therapeutics through applied biotechnology. As a result of our continued growth, we have opportunities available in Deoxyoligonucleotide Analog Development and Evaluation in our DNA Chemistry Group located in Boulder, Colorado for the following positions:

### RESEARCH SCIENTIST AND POSTDOCTORAL RESEARCH POSITIONS

Responsibilities for these positions include developing and executing new strategies for the synthesis and isolation of oligodeoxynucleotide analogs.

Qualified candidates must have a Ph.D. in Chemistry, Biochemistry or a related field. Supervisory experience is advantageous but not required.

### RESEARCH ASSOCIATE

Candidates must have a BS or MS degree in Chemistry or a related field with a minimum of one year of postgraduate experience. A knowledge of deoxynucleotide chemistry is preferred.

**Amgen** offers an excellent compensation and benefits package and the unique opportunity to contribute to significant research programs on the forefront of biotechnology. If you have the necessary skills, qualifications, and motivation and would like to be a part of a company that places a high priority on its human resources, please send a resume, in confidence, to:

**AMGEN BOULDER, INC.**  
Department 235  
2045 32nd Street  
Boulder, CO 80301

Equal  
Opportunity  
Employer

# AMGEN

## Microbiologist Pharmaceutical Research

□ Alcon Laboratories, Inc. is the leading pharmaceutical manufacturer of products for the diagnosis and treatment of ophthalmic disorders and is headquartered in Fort Worth, Texas.

□ We currently have an opening in our R&D Division for a Research Fellow of Microbiology. The successful candidate will direct and manage our microbiology resources for pharmaceutical development and antimicrobial research and provide Alcon with a supply of patentable antibiotics, anti-infectives, contact lens disinfectants and antimicrobial preservatives for development into new products.

□ The ideal candidate should have a PhD in microbiology, 8-10 yrs of pharmaceutical experience, 5 yrs experience managing research programs (preferably those involving antimicrobial agents or therapy), and proven interpersonal and leadership skills and written and oral presentation abilities.

An Equal Opportunity Employer - M/F/H/V

Resumes to **Mr. Faver**  
**Alcon** Employment Dept. (T1-3)  
Alcon Laboratories, Inc.  
PO Box 6600  
Fort Worth, Texas 76115

## TIRED OF THE BIG CITY?

A progressive manufacturer of medical devices is seeking a broadly trained **Scientist for their R&D team**. Located in the mountains of northern Arizona, W.L. Gore & Associates offers a challenging multi-disciplinary research position in combination with the southwestern, outdoors lifestyle.

Candidates should have a combination of education and experience to work as an independent investigator involving applications of cell and molecular biology, biochemistry and related fields. A broad perspective in these areas is required. Practical experience with bioanalytical methods is essential, and expertise with delivery systems for bioactive agents a plus.

We offer an excellent benefits package and a wide variety of interesting projects. For immediate consideration, send your resume, **referencing Job Order #11242**, to: **Employment Office, W.L. Gore & Associates, Inc., 1500 N. 4th Street, P.O. Box 800, Flagstaff, AZ 86002.**

**Closing Date: April 30, 1990**

Equal Opportunity/  
Affirmative Action Employer

**GORE**

Creative Technologies  
Worldwide

## POSITIONS OPEN

### RESEARCH POSITIONS

SIBIA is an established biotechnology company involved in a wide spectrum of innovative research programs. SIBIA, with a staff comprised of leading scientific members, provides an exceptional scientific research environment in which to work, near the ocean in La Jolla. Applications are requested for the following positions:

### RESEARCH ASSOCIATES

- B.A./B.S. in biology with 3 years of experience in molecular biology/mammalian cell expression. Must know mammalian cell transfection techniques and be able to analyze cells using advanced biochemical and molecular techniques. Skills must include experience in DNA, RNA, and protein isolation and analysis.

- B.A./B.S. plus 2 years of laboratory experience in chemistry or biochemistry. Perform experiments following prescribed protocols for purification and isolation of proteins. Ability to keep detailed records. Interest in protein purification desirable.

SIBIA offers a comprehensive benefits package and competitive salaries. For confidential consideration, please submit curriculum vitae and the names of three professional references to: **SIBIA, Department LA, 505 Coast Boulevard South, La Jolla, CA 92037.** Equal Opportunity Employer.

### RESEARCH ASSOCIATE (POSTDOCTORAL)

Physical studies of chromatin structure at nucleosomal level and higher order structure in Department of Biochemistry and Biophysics at Oregon State University (OSU), Corvallis, Oregon. Starting date about 1 July 1990. Ph.D. in biochemistry or biophysics, or chemistry with strong biochemical emphasis. Experience with spectroscopy and some facility with mathematical analysis preferred. Send complete curriculum vitae and copies of recent publications to the following temporary (until 1 June 1990) address: **Dr. K. E. van Holde, Laboratoire Léon Brillouin, CEN Saclay, 91191 Gif-sur-Yvette, France.** Have three letters of reference sent to the same address. Salary: \$20,000 to \$24,000, depending on experience. Applications accepted through 30 April 1990. OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973. OSU is sensitive to the needs of dual-career couples.

Applicants with a Ph.D. in molecular biology with postdoctoral experience/master's degree in biology or biochemistry with at least 5 years of laboratory experience in protein chemistry and/or molecular DNA cloning and manipulation techniques are requested to apply for this **RESEARCH ASSOCIATE** position. The individual will be working as part of a research group focusing on developmental neuroendocrinology and will be involved in teaching and supervising the activities of other laboratory assistants, clinical fellows, and students besides being involved in developing certain techniques and carrying out parts of certain projects. Individuals who are interested should apply by sending a copy of their curriculum vitae and three reference letters to: **Dr. Sherin Devaskar, The Pediatric Research Institute, 3662 Park Avenue, St. Louis, MO 63110.** St. Louis University is an Equal Opportunity Employer, M/F/V/H.

### ELECTRON MICROSCOPY/ELECTRON PROBE ANALYSIS/LIGHT OPTICAL FACILITY STATION MANAGER

Candidate should be familiar with operation and maintenance of transmission and scanning electron microscopes, operation of field emission gun, light microscopes, energy dispersive x-ray detectors, and rapid-freezing methods. Proficiency with cryoultramicrotomy of unfixed tissues is essential. Appointment is nonclassified at the **RESEARCH ASSISTANT** level and requires an M.S. degree, preferably with some background in biology. Facility consists of one Phillips EM400 with Field Emission Gun, energy dispersive x-ray detector and electron spectrometer, a second EM400 with LaB<sub>6</sub> gun and x-ray spectrometer, a laser scanning confocal microscope, associated computers, and rapid freezing apparatus. Scanning tunneling and atomic force microscope facilities are currently planned. Experience with troubleshooting of electronics equipment is desirable. Salary depending on experience. Address applications to: **Dr. Avril V. Somlyo, Department of Physiology, Box 449, University of Virginia Health Sciences Center, Charlottesville, VA 22908.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE** position available to investigate the structure-function relationship of the component proteins and gene regulation of mammalian pyruvate dehydrogenase complex. Some prior experience in protein chemistry or recombinant DNA techniques is desirable. Send curriculum vitae and three letters of recommendation to: **M. S. Patel, Department of Biochemistry, Case Western Reserve University School of Medicine, Cleveland, OH 44016.** An Equal Opportunity/Affirmative Action Employer.

**RESEARCH ASSOCIATE.** Our group studies hippocampal function and synaptic modification. We seek an individual skilled in either: light or electron microscopy, extracellular electrophysiology, or neural modeling. Position available September 1990 for 3 years. Salary: \$20,000 to \$28,000 depending on experience. Send curriculum vitae and three references to: **W. B. Levy, Department of Neurosurgery, University of Virginia, Health Sciences Center, Box 420, Charlottesville, VA 22908.** Equal Opportunity/Affirmative Action Employer.

**LIPID AND LIPOPROTEIN RESEARCH.** Associate and assistant positions available 1 July 1990 to study major sepsis on lipid and lipoprotein metabolism and use of lipid substrates administered by parenteral nutrition. Electrophoresis, thin layer chromatography, tissue lipids analysis, and isotope handling knowledge a must. Assistant requires B.S. or M.S. in science plus 3 years of experience; associate a Ph.D. Send letter, curriculum vitae, and three references to: **Dr. Susan Lanza-Jacoby, Department of Surgery, Thomas Jefferson University, Jefferson Medical College, 1025 Walnut Street, Philadelphia, PA 19107-5083.** Equal Opportunity Employer.

**RESEARCH ASSISTANT.** For medical care and research center in northeastern Ohio to perform medical research on the nature, causes, and control of viral and bacterial diseases of the ear, respiratory system, and urinary tract of infants and children. Execute research objectives by comprehensive chart review and medical history review of pediatric research subjects. Analyze and study body specimens collected from research subjects. Investigate comparative effectiveness of various antibiotic and other drugs in controlling diseases resistant to traditional methods of treatment. Compile results and prepare findings for publication. No experience required in above duties, but applicant will qualify with: M.D. or foreign equivalent as determined by approved credentials evaluation agency, and 1 year of postmedical school internship. One year of postmedical school internship must have included 4 months of experience in internal medicine. Undergraduate degree must have included one course in statistics or biomathematics. Must have published at least one scholarly research article in professional medical journal. Forty hours per week, 8 a.m. to 5 p.m.; \$28,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO# 1084531, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

**ASSISTANT RESEARCH BIOPHYSICIST.** The University of California, San Francisco, Department of Neurological Surgery, Brain Tumor Research Center, invites applications for the position of assistant research biophysicist to provide active research of polyamine-DNA interactions, drug design, and testing and provide research guidance to students and postdoctoral fellows. Candidate must have a Ph.D. degree in either biophysics or biochemistry and have at least 2 years of postdoctoral research experience in the field of DNA structure with special emphasis on kinetics and thermodynamics of ligand-DNA interactions. Work experience in polyamine-DNA interactions and computer graphics modeling of DNA and ligand-DNA systems is required. Candidate must have demonstrated experience in numerical analysis of spectroscopic, thermodynamic, and kinetic data of ligand-DNA interactions. Experience required in cell and tissue culture techniques with special emphasis on handling human tumor cell lines and the isolation, purification, and assay of subcellular organelles. Salary is \$39,300 to \$49,500 per year. Send curriculum vitae and names of three references by 12 May 1990 to: **Burt Feuerstein, M.D., Ph.D., University of California, Department of Neurological Surgery, Brain Tumor Research Center, HSW-783, San Francisco, CA 94134-0520.** The University of California is an Equal Opportunity/Affirmative Action Employer.



## POSTDOCTORAL POSITIONS

NATIONAL INSTITUTES OF HEALTH  
PHOENIX, ARIZONA

Positions are available now and in spring or fall of 1990 for recent Ph.D.s or M.D.s to participate in studies of the molecular biology and genetics of insulin resistance in a diabetes-prone human population. These molecular studies focus on several PROTEIN KINASES and PROTEIN PHOSPHATASES that are regulated abnormally by insulin in skeletal muscle of insulin-resistant subjects. Expertise in cDNA library construction and screening, oligonucleotide probe design, polymerase chain reaction, restriction mapping, and DNA sequencing is essential.

Curriculum vitae, letter of application, and names, addresses, and telephone numbers of three references should be sent to either:

Dr. Clifton Bogardus  
or  
Dr. James Sommercorn  
National Institutes of Health  
4212 North 16th Street  
Room 541  
Phoenix, Arizona 85016  
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## POSTDOCTORAL POSITION: NEUROCHEMISTRY/ ELECTROPHYSIOLOGY

Fisons Pharmaceuticals, an international pharmaceutical research and development organization, has an immediate opening for a two-year postdoctoral fellow in the Biology Department at its research facility in Rochester, NY.

The successful candidate will work within a multidisciplinary team developing methods to identify new drugs for treatment of epilepsy and neurodegenerative disorders. Expertise in electrophysiology (fast Na<sup>+</sup> channels of cultured neuroblasts) or neurochemistry (drug-receptor interactions; microdialysis) is desirable. Experience with drugs used to treat epilepsy would also be helpful.

Fisons offers very competitive compensation and benefits. Please send a letter of inquiry, resume and names of 3 references (including phone numbers) to: Bill VanBuskirk, Fisons Pharmaceuticals, P.O. Box 1710, Rochester, NY 14603.

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Exciting career challenges and opportunities for personal scientific attainment await talented, energetic and motivated scientists at our headquarters and main research facility in the San Francisco Bay Area. We invite qualified pharmacology specialists to become part of our research efforts.

### Neurobiologist

Establish in-vitro and in-vivo models to evaluate effects of agents on neuronal degeneration. Requires a PhD in Neurobiology, 1-2 years of postdoctoral experience and familiarity with primary cell tissue cultures and in-vivo models. A Pharmacology emphasis is preferred.

### Neuropharmacologist

Establish and conduct behavioral models of neurological disorders. A PhD in Neuropharmacology, with an emphasis on behavioral pharmacology, 1-2 years of postdoctoral experience and familiarity with behavioral models of learning and memory, anxiety and psychosis is required.

### Biochemical Pharmacologist

Provide expertise in radioligand binding technology, computation of data and receptor biochemistry. Experience in neurotransmitter release and other biochemical/functional assays in brain slices and cultured systems essential. Requires a PhD in Neuroscience with 2 years of postdoctoral experience.

### Pharmacologist

Direct and supervise our Analytical Pharmacology Section. Requires a thorough knowledge of pharmacology with an emphasis on the analysis of the receptor function by classical means. In addition, a PhD in Pharmacology with 2 years of postdoctoral experience, including familiarity with bioassays, receptor analysis, cell culture and radioligand binding is essential.

### Renovascular Pharmacologist

Lead basic and applied research on the kidney and its role in cardiovascular homeostasis. This involves supervising a group of biologists performing studies investigating mechanisms of renal pathophysiology, both in-vitro and in-vivo. Requires a PhD in Pharmacology with 2 plus years of postdoctoral experience.

As an international leader in the pharmaceutical industry, Syntex offers competitive salaries, an incentive bonus plan and a comprehensive relocation package. Our excellent benefits include a child care facility and an on-site health club. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. KH/S49, 3401 Hillview Avenue, Palo Alto, CA 94304. Syntex is an Equal Opportunity Employer.





Wayne State University  
**POSTDOCTORAL POSITION  
IN  
CONNECTIVE TISSUE  
PHARMACOLOGY**

A postdoctoral Research Associate is sought for a project in the area of hepatocyte-ECM interaction. The project will involve research studies into the mechanisms by which the extracellular matrix affects hepatocyte function.

Qualifications include a Ph.D. or D. Sc. in biochemistry cellular or molecular biology, or pharmacology. Research experience in connective tissue biochemistry and/or molecular biology techniques is preferred.

Interested individuals should submit a curriculum vitae and the names of three references to:

**William Lindblad**  
Professor and Chair  
Department of Pharmaceutical  
Sciences  
College of Pharmacy & AHP  
Wayne State University  
Detroit, MI 48202

Wayne State University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

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**BIOGENEX LABORATORIES**  
4600 Norris Canyon Rd.  
San Ramon, Calif. 94583

**POSITIONS OPEN**

**RESEARCH BIOLOGIST**

Experience in cell culture-transformation systems and analysis of protein products derived from oncogenes or tumor suppressor genes. A background in monoclonal antibodies and their preparation will be helpful. Familiarity with both recombinant DNA technologies and immunological techniques would be useful. Ph.D. in molecular biology and experience beyond postdoctoral level required. Send résumé to:

**Dr. Arnold J. Levine**  
Department of Biology  
Princeton University  
Princeton, NJ 08544

*Equal Opportunity Employer/Affirmative Action.*

**RESEARCH TECHNICIANS**

The Dana-Farber Cancer Institute, a leading comprehensive cancer center with state-of-the-art laboratory space, is seeking a **SENIOR TECHNICIAN** to oversee operation of a hybridoma generation and production facility; 1+ years of experience generating hybridomas required. Please send résumé for this position, other senior and entry level research opportunities to: **Heather Holmes, HR, 44 Binney Street, Boston, MA 02115.** *Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATES**

Research associates for active HIV and human herpes virus laboratory. B.S. or M.S. in biology or related field. Skills in cell culture, molecular biology, and virology are desirable. Applications from recent graduates are welcome. Will set up clinical specimens into culture, maintain viral stocks and cultures, employ radiolabeled DNA and RNA probes to detect viral genes, prepare media, and maintain the laboratory and equipment. Send résumé to: **Doreen Gallagher, Human Resources, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.**

Applicants with a Ph.D. in molecular biology/master's degree in biology or biochemistry with at least 5 years of laboratory experience in molecular DNA cloning and manipulation techniques are sought for a **RESEARCH ASSOCIATE** position, to work as part of research group and to contribute to ongoing research projects. Individuals who are interested should apply by sending a copy of their curriculum vitae and three reference letters to: **Dr. Sherin Devaskar, Pediatric Research Institute, 3662 Park Avenue, St. Louis, MO 63110.** *St. Louis University is an Equal Opportunity Employer, M/V/V/H.*

**RESEARCH ASSOCIATE.** Two positions available at the levels of postdoctoral fellow or junior faculty, M.D. or Ph.D. degree. Background in cell biology or molecular biology required, particularly in mechanisms of signal transduction, regulation of transcription or immunocytochemical localization, and in situ hybridization. To join ongoing studies on a newly described IL-1 receptor antagonist from human monocytes. Salary dependent upon level of training and experience. Interested candidates should send curriculum vitae and three references to: **William P. Arend, M.D., Department of Medicine, Box B-115, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262.** *Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE,** internal medicine. Medical school position involving research into the development of immunogenic recombinant vaccine for HIV and HTLV-1. Research techniques include genetic engineering; DNA preparation, restriction, ligation, and transformation; immunological detection; and the assay of immune function. Candidates should possess Ph.D. or D.Sc. in a basic science; M.D. or D.V.M. M.D. or D.V.M. candidates must also have 3 years of postdoctoral research experience. Annual salary: \$18,900. Apply to: **Texas Employment Commission (TEC), Amarillo, Texas,** or send résumé to: **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #5518142.** *Ad paid by an Equal Employment Opportunity Employer.*

**AARON DIAMOND AIDS  
RESEARCH CENTER  
for the City of New York**

The Aaron Diamond AIDS Research Center for the City of New York invites applications for **STAFF SCIENTISTS, POSTDOCTORAL FELLOWSHIPS and TECHNICIANS.**

The Center was recently formed under the joint sponsorship of NYU School of Medicine, the Aaron Diamond Foundation, the Public Health Research Institute, and the City of New York. Under the direction of Dr. David D. Ho, the Center plans to open in the summer of 1990. The research focus of the Center will be on AIDS and human retrovirology, immune responses to HIV, AIDS pathogenesis, and selected aspects of molecular and clinical retrovirology.

The Center offers unique opportunities for research and personal development, state of the art facilities including a BL3 laboratory of 4,000 square feet, and an attractive salary and benefit package.

Preference will be given to individuals with experience in HIV research, with emphasis on molecular biology, immunology, and cell biology.

An application letter, including a statement of research goals, curriculum vitae and names of three references to:

**Dr. David D. Ho**  
Aaron Diamond AIDS Research Center  
1270 Avenue of the Americas  
Suite 2624  
New York, New York 10020  
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1991**

Nominations are invited for the 1991 Markey Scholar Awards which provide substantial support in post-doctoral years and in the first five years of faculty service. The seventh series of awards will be made for the twelve-month academic year beginning July 1, 1991.

A maximum of sixteen annual appointments will be made to individuals who hold a Ph.D. or D.Sc., M.D./Ph.D., M.D., D.V.M. or D.D.S. degrees. Awards will provide both a stipend/salary and support for the Scholar's research. Nominations must be submitted by the institutions in which the nominees will be pursuing postdoctoral research training when the awards are initiated.

For further information and nomination procedure, please write:

Scholar Awards in Biomedical Science  
Department 510  
Lucille P. Markey Charitable Trust  
3250 Mary Street, Suite 405  
Miami, FL 33133



**Deadline for nominations is October 1, 1990**

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## RESEARCH BIOLOGIST

The Sterling Research Group has an immediate opening for a Research Biologist in the Virology Department at its Rensselaer, New York, facility.

We are seeking a Molecular Biologist or Protein Biochemist to assist in the development of screening assays for the discovery of new antiviral agents.

The successful candidate will have a B.S. degree (or equivalent) in a life science discipline and must be willing to work with human pathogenic viruses. Laboratory experience in virology or molecular biology and experience in cell culture and radioisotope techniques are desirable.

To apply, please send your resume with salary history to: **SRG-90, Sterling Research Group, A Division of Sterling Drug Inc., 81 Columbia Turnpike, Rensselaer, New York 12144.** An Equal Opportunity Employer M/F/H/V.



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## RESEARCH SCIENTIST BIOPROCESS MICROBIOLOGY

The Upjohn Company, a worldwide leader in the research, production, and marketing of pharmaceutical, chemical and agricultural products, has an opening for a Ph.D. Microbiologist in its Bioprocess Research and Development Group.

As part of a multi-disciplinary team, this research scientist will develop, implement and support biological processes for commercial production of steroid intermediates, antibiotics and recombinant proteins.

This position requires a Ph.D. broadly trained in Microbiology, Biochemistry or Microbial Genetics with a demonstrated knowledge of microbial physiology. Experience in fermentation, and recombinant protein expression and knowledge of regulation, intermediary metabolism, and protein biochemistry are highly desirable. Excellent interpersonal skills as well as written and verbal communication skills are necessary.

Upjohn offers competitive compensation and benefits programs plus a stimulating multi-disciplinary research environment at our Kalamazoo, Michigan location. For confidential consideration, please forward your CV/resume to THE UPJOHN COMPANY, CORPORATE RECRUITING, KALAMAZOO, MI 49001-9988, or materials may be faxed to 616/329-5525. Refer to Position Number 5675-CA in your correspondence. An Equal Opportunity Employer M/F.

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## FELLOWSHIP AT NIH

National Institutes of Health, Public Health Service, Fellowship in Cell Biology, Electrophysiology as related to Alzheimer's disease and Down syndrome (trisomy 21). The Laboratory of Neurosciences at the National Institute on Aging, NIH, invites application for a Staff Fellowship position to study gene regulation of neuronal development and function. The electrical, histological and metabolic properties of neural tissue from mouse trisomy 16 (a model of trisomy 21), human trisomy 21, and appropriate transgenic and transfected cell models are examined in vivo and in tissue culture. Studies include: measurements of voltage- and neuro-transmitter-gated ionic currents in cultured cells, using intracellular recording and patch clamp, and tissue culture techniques; examination of neuronal growth and synaptic function in cultured cells; transplantation of fetal brain tissue from trisomic brains into brains of normal mice; examination of regulation of gene expression, using in situ hybridization and immunocytochemistry. The NIH Staff Fellowship is a tenure track position located in Bethesda, Maryland and salary is commensurate with qualifications. Send Curriculum Vitae and two letters of reference to:

**Dr. Stanley I. Rapoport, Chief  
Laboratory of Neurosciences  
National Institutes of Health  
Building 10, Room 6C-103  
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Bethesda, MD 20892**



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## POSITIONS OPEN

**RESEARCH SCIENTIST.** Research optics-related programs under direction of chief scientist in the investigation of nonlinear optics, interferometry, holography, and computer-related activities. Experience must include display and industrial holographic applications. Must have master of science in physics plus 1 year of experience in this job or as research physicist or bachelor of science and 3 years of experience. Salary: \$32,400 per year. Forty hours per week. Job and interview in Van Nuys, California. Send this ad and résumé to: Job # MLU 13949, P.O. Box 9560, Sacramento, CA 95823-0560, no later than 28 April 1990.

**RESEARCH SCIENTIST, PHYSICS.** Full time, 8:00 a.m. to 4:00 p.m. Investigate the fundamentals of self assembly in polymeric liquid crystals, lyotropic liquid crystals, and lipids; study the possibilities of different self-assembly system as electro-active composite, devices, and sensors. Design, evaluate, and interpret the experimental data to understand and fabricate biologically derived and sub-micron assemblies. Requires Ph.D. in physics, 5 years of experience in job offered or 5 years of experience as a scientist. Must have extensive established record of publications of sufficient research in recognized journals relevant to job duties. Salary: \$54,350 per year. Mail two copies of résumé with ad to: J.O. # 7840 DOES, 500 C Street, N.W., Room 325, Washington, DC 20001. Proof of legal right to work in the United States required.

**SCIENTIST (RESEARCH ASSISTANT PROFESSOR equivalent).** To study the regulation of genes coding for heme oxygenase and biliverdin reductase isozymes. Expertise in basic molecular biology techniques as applies to eukaryotic cells is required. Send curriculum vitae to: Dr. M. D. Maines, Department of Biophysics, University of Rochester (UR) School of Medicine, Box BPHYS, Rochester, NY 14642. UR is an Equal Opportunity/Affirmative Action Employer. Applications must be received by 1 June 1990.

**RADIOIMMUNOASSAY/IODINATION: TECHNICIANS AND SUPERVISORS.** Several positions immediately available in a laboratory specializing in hormone RIA and iodinations. Competitive salaries commensurate with training and experience. Send applications to: Dr. Paul I. Musey, Hormone Research Laboratory, Clark Atlanta University, 223 James P. Brawley Drive, Atlanta, GA 30314. Telephone: 404-880-8573. Clark Atlanta University is an Equal Opportunity Employer.

## SITUATIONS WANTED

**BIOCHEMIST, Ph.D.,** 4 years of postdoctoral experience isoprenylated proteins, purification, cholesterol metabolism, cell proliferation tissue culture. Seeks research position in industry/academia. Dr. Rao S., 15 Washington Place, Apt. 6N, New York, NY 10003.

**DEVELOPMENTAL/MOLECULAR BIOLOGIST, Ph.D. (1984).** Experienced in protein purifications, RIA, cell culture, HPLC, reproduction. Seeks academic/industrial position in Northeast. Box 14, SCIENCE.

**ELECTRON MICROSCOPIST, M.S.** cell biology. Protistology, neuroscience, and diagnostic EM. TEM, SEM, immunocytochemistry; autoradiography; image analysis; laboratory management and administration. Box 19, SCIENCE.

**MICROBIAL GENETICIST (E. coli, basidiomycetes).** Ph.D. (1983). Expertise, interests: cloning, sequencing; expression vectors; PFGE; FPLC; fungal transformation, physiology; aromatics biodegradation. Dr. Dass, 517-355-0317.

**MICROBIOLOGIST, Ph.D.** Isogenic *Bacillus subtilis*, thermophile grows 50°–70°C, mesophile 20°–55°C, isogenic mesophilic/thermophilic facultative anaerobes. Seeks position developing thermophilic bacteria for biotechnologies. Mary L. Dreffner, Ph.D., 2432 Aspen Street, Philadelphia, PA 19130.

**THEORETICAL ECOLOGIST.** Ph.D., postdoctoral experience. Expertise in simulation modeling, nonlinear dynamics, ecotoxicology, and landscape ecology. Seeks faculty or research position. Box 31, SCIENCE.

## POSITIONS OPEN

**LABORATORY SCIENTIST.** Applicants should have a Ph.D. with research background in immunology, hemostasis, or virology as related to transfusion medicine. The candidate will be expected to assist in development and to conduct independent research, and be able to attract external funding. Interested candidates should submit their curriculum vitae, research interest, names of three references, and salary requirements to: Medical Director, Canadian Red Cross Society, Blood Transfusion Service, 737 13th Avenue, S.W., Calgary, Alberta, Canada T2R 1J1.

**WILDLIFE ECOLOGIST. ASSISTANT/ASSOCIATE PROFESSOR** (9-month tenure track) beginning January or August 1991. Ph.D. and refereed publications required. Emphasis on measuring the impacts of habitat manipulations on wildlife populations/communities. Graduate and undergraduate teaching and advising also required. Submit application letter, statements of goals in teaching and research, résumé, transcripts, and three letters of recommendation by 1 September 1990 to: Dr. Gary C. White, Department of Fishery and Wildlife Biology, Colorado State University (CSU), Fort Collins, CO 80523. CSU is an Equal Opportunity/Affirmative Action Employer. E.O. Office: 314 Student Service Building.

## EMPLOYMENT AGENCIES

Attention: biology, biotechnology, medical research job seekers. Check out **JOBLINE**, the online database for employment opportunities in the life sciences. Available exclusively through the BIOSIS Connection, the unique online service for biological information, Jobline contains help wanted listings from worldwide employers in industry, government, and academic institutions. To find out how to access Jobline, call BIOSIS toll free: 1-800-523-4806 (United States, except Pennsylvania); 215-587-4800 worldwide. Terrific jobs are waiting for you on Jobline!

## COURSES AND TRAINING

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room S, 424 Beacon Street, Boston, MA 02115.

### THE UNIVERSITY OF CALGARY

**POSTDOCTORAL TRAINEESHIPS, ION CHANNEL STUDIES.** Traineeships available to study the molecular properties and modulation of ion channels by reconstitution into planar lipid bilayers, and by patch clamping, in the Department of Medical Physiology at the University of Calgary. One 3-year position to study cardiac and skeletal muscle sodium channels available immediately; a second will be filled on successful application for fellowship support. Candidates should have completed a Ph.D. or equivalent research training. Strong background in biochemistry/biophysics/molecular biology of membrane proteins (especially channels) is desirable. Experience in single channel analysis not essential, but interest in learning these quantitative methods important. Submit curriculum vitae, a brief statement of research interests and goals, and names of three references by 15 May 1990 to: Dr. Robert J. French, Department of Medical Physiology, 3330 Hospital Drive, N.W., Calgary, Alberta T2N 4N1, Canada.

## ANNOUNCEMENTS

**PRE-PROPOSALS—Deadline 1 August 1990.** International Foundation for Ethical Research (IFER) has grants available for research into alternatives to the use of live animals in research, testing, and teaching. Projects must take into account the three R's: Refinement, Reduction, and Replacement plus a fourth R: Responsibility. For information and format write: IFER, 53 West Jackson Boulevard, Chicago, IL 60604, or call: 312-427-6025.

## FELLOWSHIPS

### MOLECULAR AND CELL BIOLOGY

This interdepartmental program offers graduate work leading to Ph.D. degree in molecular and cell biology. Research areas, covering animal, plant, and prokaryotic systems, include studies on regulation of gene expression during growth, differentiation and reproduction, ultrastructural-functional relationships, transport channels, vision, signal transduction, photoregulation, host-parasite interactions, molecular genetics, and molecular analysis of protein/enzyme structure and function. Please contact: Dr. Inder K. Vijay, Program in Molecular and Cell Biology, University of Maryland, College Park, MD 20742.

## MEETINGS

The Northwestern University Cancer Center presents:

### THE MOLECULAR AND CELLULAR BASIS OF DISEASE: EPITHELIAL DIFFERENTIATION AND NEOPLASIA 30 SEPTEMBER TO 2 OCTOBER 1990 CHICAGO, ILLINOIS

Speakers (partial list): Mina Bissell, Beverly Dale, Werner Franke, Elaine Fuchs, Robert Goldman, Elizabeth Hay, W. James Nelson, David Parry, James Rheinwald, George Rogers, Dennis Roop, Tom Slaga, Peter Steinert, Tung-Tien Sun, Fiona Watt, Stuart Yuspa.

Topics: Epithelial differentiation and regulation, molecular structure and dynamics of epithelial cytoskeletons, epithelial cell surfaces, epithelial-ECM interactions, epithelial neoplasia.

For additional information contact: Office of CME, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. Telephone: 312-908-8533.

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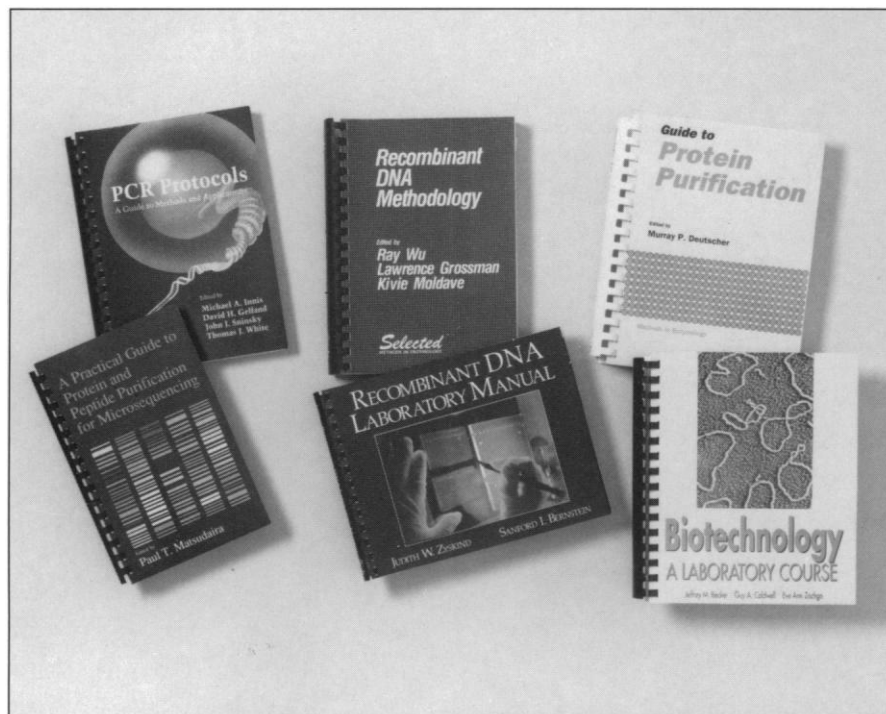
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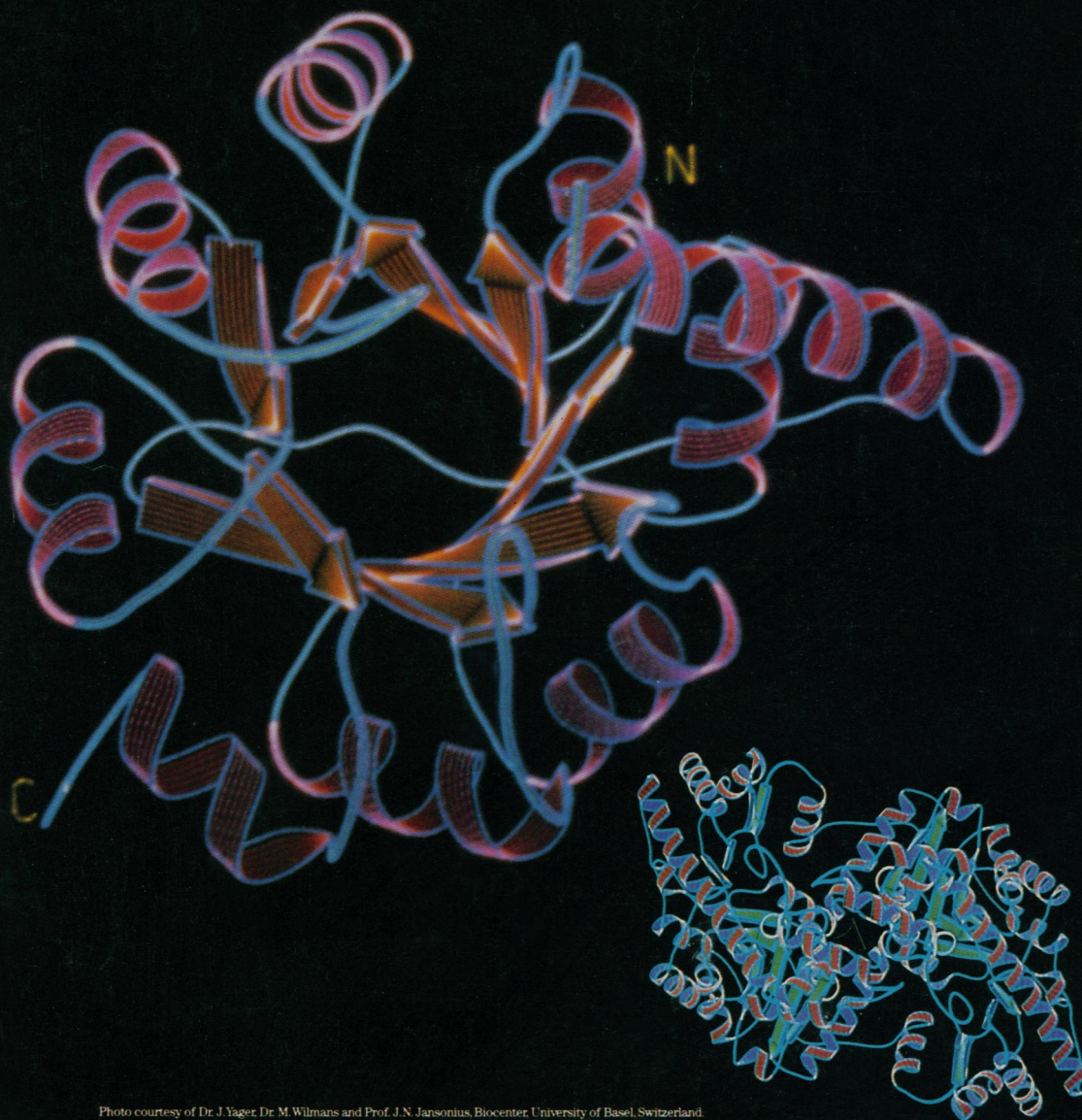


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