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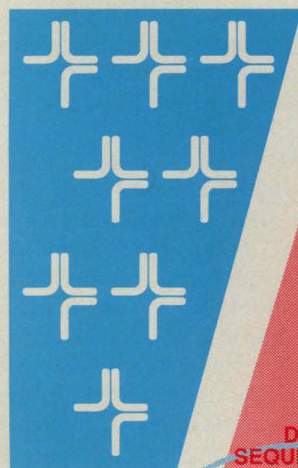
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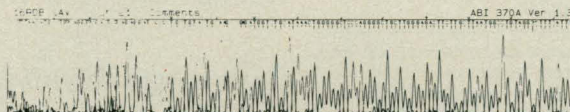
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### **Statistical Software for Macintosh**

MINITAB Statistical Software, an interactive system for organizing and analyzing data and reporting statistical results, is now available for Macintosh computers. The Macintosh version is similar to versions for mainframes, minicomputers, and DOS-based microcomputers. It includes Macintosh features that enhance its usefulness as a tool for exploratory data analysis, including a journal window that records commands from MINITAB sessions and saves them for use as macros, graphics windows that enable users to view statistical output and graphical displays simultaneously, and a log window for scrolling through input. The Mac Plus/SE Version of MINITAB was designed for Mac Plus, SE, and Portable Mac computers, but also runs on Mac II and SE/30 systems. The Mac II Version was designed for Mac II and SE/30 machines and requires a 68020 or 68030 processor and a 68881 or 68882 math coprocessor. Both versions run under TOPS and AppleShare networks and require 1 megabyte of random access memory, 2.5 megabytes of hard disk storage, and System software version 6.0 or higher. MINITAB. Circle 511.

### **Thermal Cycling Instrument**

The MicroCycler E is a thermal cycling instrument with a large eight-line by 40-character liquid crystal display combined with interactive, menu-driven software for easy entry of thermal programs. A clock shows the start time, current time, and estimated finish time of each program run. A bar graph shows the percent completion of the running programs. Print Program and Print Summary options provide for printed records of the input program and the execution steps of a running program. Up to 99 programs with 99 steps can be stored. Five ramp speeds provide flexibility



and customization of protocols. A sample temperature sensor monitors conditions and provides real-time feedback to control the system. The Microcycler E is available in two models, one for 0.5-ml and one for 1.5-ml microcentrifuge tubes. Eppendorf. Circle 507.

### **New Line of Computer Equipment**

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cludes a three-dimensional desktop workstation; high-end RISC-based servers and a new desktop server; a new version of UL-TRIX software (Digital's version of the UNIX operating system) that includes distributed computing capabilities, further implementation of network application support services, and compilers for software development; and reduced prices. Digital Equipment Corp. Circle 499.

### **Automated Membrane Affinity Separation System**

The AutoMASS 1000 is an automated membrane affinity separation system that drastically reduces the time and costs of

purifying monoclonal antibodies and other biopharmaceuticals. The central component of the AutoMASS (Membrane Affinity Separation System) device, which has delivered yields of 85 to 95% and purities of more than 98%. MASS achieves these results in a single 4-min pass of solution through the device. NYGene Corp. Circle 503.

### **DNA Polymerase for DNA Sequencing**

AmpliTaQ DNA Polymerase for DNA Sequencing is an ultrapure, gelatin-free enzyme. The enzyme is formulated and concentrated for use in the labeling, extension, and termination reactions in both manual and automated DNA sequencing. It produces strong, even-intensity signals and readable sequences up to 600 bases. It can perform at high temperatures and low salt concentrations. Perkin-Elmer Cetus Instruments. Circle 510.

### **Literature**

*TLC 90* is a 44-page catalog that covers all aspects of thin-layer chromatography with detailed product information and general information on techniques and methodology. CAMAG. Circle 525.

*Cell Culture Reference List* is a free compilation of published references in which hollow-fiber technology is used for the production of cell-secreted products. Endotronics. Circle 526.

*Cell Culture Media Reference List* is a comprehensive list of references citing the use of serum-free media in mammalian cell culture applications, including techniques to wean cells from serum containing media and production protocols for the use of serum-free media. Endotronics. Circle 527.

The most recent *Rotofor Review* describes the latest protocols and techniques for electrophoretic purifications of proteins and macromolecules on the Rotofor preparative isoelectric focusing cell. Bio-Rad Laboratories. Circle 528.

*FisherBiotech Immunoreagents* features more than 440 polyclonal and monoclonal, labeled and unlabeled, immunoreagents. The catalog contains product details, such as specificity analysis, form, storage, and stability, and specific applications in which the immunoreagents perform best. Fisher Scientific. Circle 529.

*Industrial and Laboratory Scales* is a 28-page, full-color catalog that provides a comprehensive overview of features and applications of a line of scales and balances. Ohaus Corp. Circle 532.

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

# Personnel Placement

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

## LINE CLASSIFIED ADVERTISEMENTS

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

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

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

**RATE:** \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

**PREPAYMENT DISCOUNT:** A 3% cash discount is granted to all prepaid line ads. Prepayment in U.S. dollars by checks drawn on U.S. banks is required for all foreign ads.

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

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

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

Address ad copy or requests for information to:

**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
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## MARKETPLACE AND DISPLAY PERSONNEL ADVERTISEMENTS

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

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

## RESPONSES TO EMPLOYMENT ADS

Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications. **SCIENCE** encourages applicants for positions to investigate employment laws, non-discrimination policies, visa requirements, and cultural differences in the country advertising for employees.

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

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## POSITIONS OPEN

The Animal Science Department, Iowa State University, seeks to fill the following tenure-track faculty positions. All positions emphasize research, teaching, and graduate education.

**ASSISTANT PROFESSOR.** Dairy Product Molecular Biology and Food Science. Research and graduate education in dairy product design, development, alteration, and utilization with emphasis on molecular biology. Collaboration will be with other scientists in animal products, genetics, and nutrition.

**FACULTY POSITION.** Food Microbiologist/Meat Science. Conduct a major research program including but not limited to preservation and safety of meat and poultry products. Teaching will be in related areas. Collaboration in the Meat Export Research Center, Meat Irradiation Program, and Food Safety Research Center will be essential.

Applicants for the above positions must have a Ph.D. in the area specified or in a closely related field. Outstanding research ability and effectiveness in communicating with colleagues, students, and clientele are essential. Candidates may request information and/or apply by contacting: **Dr. S. A. Ewing, Head, Department of Animal Science, 101 Kildee Hall, Iowa State University, Ames, IA 50011. Telephone: 515-294-7620. Equal Opportunity/Affirmative Action Employer.**

The Department of Medicine, University of Toronto, has an opening for an **ASSISTANT PROFESSOR**. The candidate should have a Ph.D. (M.D./Ph.D.) in biochemistry, molecular biology, or a related field with extensive experience in the application of molecular biological techniques to the understanding of the structure and function of transport proteins. As a member of the MRC Group in Membrane Biology, the candidate will be focusing on basic and clinical problems in epithelia with special emphasis in Nephrology. The appointment is for an initial 3-year period with limited teaching responsibilities. The candidate will be expected to apply for external research and salary support. Salary offered will be commensurate with qualifications and experience. The appointment is to be effective 1 January 1991, with a closing date for receipt of applications being 30 November 1990. *The University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples, and persons with disabilities. In accordance with Canadian Immigration requirements this advertisement is directed to Canadian citizens and permanent residents.*

Curriculum vitae including three references should be directed to: **Dr. M. Silverman, MRC Group in Membrane Biology, Medical Sciences Building, Room 7226, University of Toronto, 1 King's College Circle, Toronto, Ontario, Canada M5S 1A8.**

## ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY

The Department of Pharmacology and Toxicology at Ponce School of Medicine is seeking applicants for a faculty position at the assistant professor level. The applicant should possess a Ph.D. degree in toxicology or pharmacology and have at least 2 years of postdoctoral experience. Research interests must have a toxicological focus. Areas of interest include, but are not limited to: biochemical, neuro-, immuno-, and cardiovascular toxicology. Candidate must have experience with modern analytical methodology such as HPLC, GC-mass spectrophotometry. Academic responsibilities will include teaching medical students, and pharmacology and toxicology graduate students. Interested applicants should send a detailed curriculum vitae, statement of research plans and career goals, and names of at least three references to: **Dr. Arthur L. Hupka, Chairman, Department of Pharmacology and Toxicology, Ponce School of Medicine, P.O. Box 7004, Ponce, PR 00732. The Ponce School of Medicine is an Equal Opportunity Employer.**

**ASSISTANT PROFESSOR OF PHYSIOLOGY AND BIOPHYSICS** (Ph.D. and/or M.D.). Research areas: membrane biophysics including receptor mechanisms. Physiologist able to teach areas other than research interest; e.g., gastrointestinal to medical, nursing, and graduate students. Minimum of 2 years of postdoctoral training required and ability to develop extramurally supported research. Application deadline: 26 July 1990. Send curriculum vitae, research plans, and list of five references to: **C. H. Baker, Ph.D., Department of Physiology and Biophysics, Box 8, College of Medicine, University of South Florida, Tampa, FL 33612. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### PHARMACOGNOSY, ASSISTANT PROFESSOR

Teach undergraduate and graduate courses in pharmacognosy, and develop a research program. Ph.D. in a wide area of disciplines such as pharmaceutical science, natural product chemistry, biochemistry, immunology, etc. required. Postdoctoral training is required. Evidence of excellence in teaching and research is essential. Academic year, tenure-track position. Search will continue until suitable candidates are recruited. Interested persons should submit curriculum vitae and the names of three references to:

**Yuzuru Shimizu, Search Committee Chair**  
**Assistant Professor**  
**Pharmacognosy (161011) Position**  
**The University of Rhode Island**  
**P.O. Box G**  
**Kingston, RI 02881**

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### ASSISTANT PROFESSOR OF PHYSIOLOGY

This full-time faculty position is available immediately. Candidates must have a Ph.D., M.D., D.V.M., or equivalent with recent postdoctoral experience. Position involves teaching and research. Candidates are expected to develop an independent research program with outside funding. Teaching duties include participation in the first-year medical physiology course and courses in a newly developing Ph.D. program. Preference will be given to candidates with experience and interest in cardiovascular, muscle, cellular, or neurophysiology. Screening of applicants will begin 1 August 1990 and continue until the position is filled. Send curriculum vitae and names of three references to: **Dr. Brian K. Lewis, Chairman, Department of Physiology, Ponce School of Medicine, P.O. Box 7004, Ponce, PR 00732.**

**ASSISTANT/ASSOCIATE PROFESSOR.** Regulation of plant gene expression. The Department of Horticulture, University of Illinois at Champaign-Urbana is seeking applications for a 9-month, tenure-track, 75% research, 25% teaching position to be housed in a new building with 100 other biotechnologists. The appointee is expected to develop an innovative research program in environmental and developmental regulation of gene expression in horticultural plants subjected to stress. Possible research includes, but is not limited to mechanisms of signal transduction, isolation and characterization of regulatory DNA sequences, gene transfer systems, or foreign gene expression. Candidates with postdoctoral experience are preferred. Submit by 30 July 1990 a statement of research interests, curriculum vitae, and the names, addresses, and telephone numbers of at least three references to: **Dr. Jack Juvik, Department of Horticulture, 1005 Plant Sciences Lab, 1201 South Dornier Drive, Urbana, IL 61801. The University of Illinois is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are especially encouraged to apply.**

## THE UNIVERSITY OF CALGARY ELECTRON MICROSCOPIST

The University of Calgary Department of Anatomy invites applications for a full-time academic position at the **ASSISTANT PROFESSOR** level as a cell biologist/electron microscopist. Qualifications include a Ph.D. and/or M.D., 2 years of postdoctoral experience, and a proven research record in eukaryotic molecular/cell biology with expertise in electron microscopy. Rank and salary will be commensurate with qualifications and experience.

The successful candidate will be expected to compete successfully for salary and establishment grant support from the Alberta Heritage Foundation for Medical Research, and will have 75% of time protected for research.

Submit curriculum vitae, synopsis of research interests, and the names and addresses of three referees, by 15 August 1990, to:

**Dr. R. Hawkes**  
**Head, Department of Anatomy**  
**The University of Calgary**  
**3330 Hospital Drive N.W.**  
**Calgary, Alberta T2N 4N1 Canada**

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

## POSITIONS OPEN

University of Maryland at Baltimore, Division of Endocrinology seeks Ph.D. at the **ASSISTANT PROFESSOR** level to supervise all aspects of Adult Endocrinology Laboratory. Prior experience with radioimmunoassays required. Administrative experience desirable. Salary negotiable. Curriculum vitae and three letters of reference should be sent to: **J. F. Wilber, M.D., Head, Division of Endocrinology, Room N3W50, 22 South Greene Street, Baltimore, MD 21201** by 1 August 1990. *Equal Opportunity Employer.*

### HARVARD MEDICAL SCHOOL OR CHILDREN'S HOSPITAL BOSTON, MASSACHUSETTS

**ASSISTANT PROFESSOR OR POSTDOCTORAL** appointments (two). (i) Enzyme chemist with an interest in molecular biology to work on protein kinases of calcified tissues. (ii) Protein chemist. Non-collagenous proteins, protein chemistry, and molecular biology. Candidates must have M.D. or Ph.D. and relevant experience. Submit résumés to: **Melvin J. Glimcher, M.D., Children's Hospital, Enders Building, 320 Longwood Avenue, Boston, MA 02115.**

**ASSISTANT/ASSOCIATE PROFESSOR.** Department of Veterinary Pathology, School of Veterinary Medicine, Louisiana State University (LSU), invites applications for a tenure-track faculty position in experimental pathology. Applicants should have experience in pathobiology at molecular and cellular level. Ph.D. degree is required. D.V.M. and pathology board desirable. Primary duties: development of an independently funded research program and graduate instruction. Salary commensurate with qualifications. Hire date is 1 September 1990, or until suitable candidate is selected. Applicants submit: curriculum vitae, names of three references, and summary of current research activities to: **Dr. H. W. Casey, Head, Department of Veterinary Pathology, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA 70803.** *LSU is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR/CELLULAR NEUROBIOLOGIST CENTRE FOR RESEARCH IN NEUROSCIENCE MCGILL UNIVERSITY

A tenure-track position is available for an **ASSISTANT OR ASSOCIATE PROFESSOR** studying molecular or cellular aspects of neural development or regeneration. Applicants should send their curriculum vitae, a summary of their research interests, and have at least three letters of reference sent to: **Dr. A. Aguayo, c/o Search Committee, Centre for Research in Neuroscience, 1650 Cedar Avenue, Montreal, Quebec, Canada H3G 1A4** by 31 July 1990.

### ENVIRONMENTAL HEALTH

The Program in Social Ecology at the University of California, Irvine, is recruiting for an **ASSISTANT PROFESSOR**, tenure-track position in the area of Environmental Health Science and Policy. Applicants should have received a Ph.D. in environmental sciences, environmental chemistry, molecular and environmental biotechnology, or biochemistry. The successful candidate should have demonstrated experience in laboratory or field research related to environmental sciences or health. Ability to teach statistics and environmental testing methodology is desirable.

The Program in Social Ecology grants B.A., M.A., and Ph.D. degrees. The 30 full-time faculty have multidisciplinary interests and expertise in environmental sciences, public health, demography, urban planning, environmental law, and environmental psychology. The Social Ecology Building houses four laboratories: ultra-clean monitoring, water quality, microbial ecology and bioremediation laboratory, radiocarbon dating and environmental chemistry laboratory, and a full-scale environmental simulation laboratory.

Candidates should submit a letter of application, curriculum vitae, and names of three references to:

**Dr. Betty H. Olson, Chair  
Environmental Health Search Committee  
Program in Social Ecology  
University of California  
Irvine, CA 92717**

Closing date for applications is 30 November 1990. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

Neurobiologist. New faculty positions (tenure track at **ASSISTANT OR ASSOCIATE PROFESSOR LEVEL**) available in the expanding Department of Anatomy and Neurobiology: (i) two cellular/molecular neuroscientist positions available. Preference given to candidates with research interests in neuroendocrinology, developmental neurobiology, regeneration, neuroimmune system, or aging. Excellent opportunities for collaborative research with the Centers on Aging and Cancer. Ph.D. and 2 to 3 years of postdoctoral research training required. Establishment of an independent, productive, and extramurally funded research program expected. Team-teaching in either histology or gross anatomy and participation in the graduate program essential; (ii) one position, dedicated to teaching gross anatomy and histology, requires Ph.D. in anatomy, and documented expertise in computer-assisted learning in anatomy. Send curriculum vitae, summary of research and research plan [position (i) only], accomplishments, teaching experience, and three letters of recommendation to: **M. B. Nikitovitch-Winer, Chair, Department of Anatomy and Neurobiology, University of Kentucky Medical Center, Lexington, KY 40536-0084.**

### ASSISTANT, ASSOCIATE OR FULL PROFESSOR LEVEL POSITIONS IN VASCULAR CELL BIOLOGY

Two new positions are open in basic biomedical research on the staff of the Cleveland Clinic Research Institute. Successful applicants will establish an independent research program as well as collaborative ties with current staff scientists. Areas of research interest include regulation of vascular cell gene expression, intracellular signaling pathways, lipoprotein-cell interactions, connective tissue production, vascular cell growth control, leukocyte-vessel wall interactions, and vessel wall/coagulation system interactions. Applicants with experience in molecular and cell biology, genetics, or biochemistry will be given preference. Physician-scientists and thrombosis researchers are encouraged to apply.

The Cleveland Clinic Research Institute, which consists of nine departments comprising over 150 scientists including pre- and postdoctoral trainees, offers a stimulating and supportive environment for career growth, competitive salaries, excellent fringe benefits, and substantial space and funds for establishing or relocating a research effort. Send curriculum vitae, a brief statement of research interests, and names of three references by 1 August 1990 to: **Paul E. DiCorleto, Ph.D., Department of Vascular Cell Biology and Atherosclerosis Research FF4, Cleveland Clinic Research Institute, 9500 Euclid Avenue, Cleveland, OH 44195.**

*The Cleveland Clinic Foundation is an Equal Opportunity Employer.*

### THE UNIVERSITY OF CALGARY MOLECULAR BIOLOGIST AGING/NERVOUS SYSTEM

The University of Calgary Faculty of Medicine invites applications for academic positions at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in the area of molecular biology of aging and/or the nervous system. Qualifications include a Ph.D. and/or M.D., postdoctoral research training, and demonstrated expertise and commitment. The successful candidates will be associated with the Molecular and Developmental Biology and Neurosciences Research Groups, and the Departments of Pathology and Medical Biochemistry. Academic rank and salary will be commensurate with experience and qualifications.

The successful candidates must compete successfully for salary and establishment grant support from the Alberta Heritage Foundation for Medical Research and/or the Medical Research Council of Canada, and will be expected to devote at least 75% of time to research.

Submit curriculum vitae, a statement of research interests, and the names and addresses of three referees before 31 July 1990 to:

**Dr. N. B. Rewcastle  
Head, Department of Pathology  
The University of Calgary  
1403-29 Street N.W.  
Calgary, Alberta T2N 2T9 Canada**

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

## POSITIONS OPEN

### MOLECULAR IMMUNOLOGIST

Candidates are sought at the **ASSISTANT OR ASSOCIATE PROFESSOR** level, tenured or tenure track, to undertake research using molecular approaches to immunology. Candidates are expected to establish a vigorous research program and participate in graduate student education. The closing date for receipt of inquiries is 1 August 1990. Please send curriculum vitae and names of three references to: **Search Committee, Department of Pathology and Laboratory Medicine, 709 Woodruff Memorial Building, Emory University School of Medicine, Atlanta, GA 30322.** *Emory University is an Equal Opportunity/Affirmative Action Employer.*

**BIOCHEMIST.** Research Foundation, Cleveland, Ohio. Study of interferon, biological molecule which has an antiviral and anticancer effect and its regulation of a specific set of cellular genes are regulated by interferon. Research objective is to understand the mechanism and how this set of genes are transcriptionally regulated. Protein interacts with specific DNA fragments of these genes, study of how this interaction and regulation occurs within a cell. Thirty-five hours per week; 9 a.m. to 5 p.m.; salary \$30,000 per year. Requires 1 year of experience and Ph.D. in biochemistry or molecular biology. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate to: **J. Davies, No calls. JO # 1084550, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

**BIOLOGY.** St. Andrews College invites applications for a 1-year position beginning 28 August 1990. Primary responsibilities: participation in a team-taught general biology course and upper level courses in at least two of the following areas: plant taxonomy, ecology, plant morphology/diversity, and plant anatomy/physiology. Qualifications: ABD required, Ph.D. preferred. The successful applicant will also be expected to serve as herbarium and greenhouse manager. Consideration of applications will begin on 6 July 1990. Send résumé, transcripts, and three letters of recommendation to: **Dr. Dennis McCracken, Chair, MNHS Division, St. Andrews College, Laurinburg, NC 28352.** *Affirmative Action/Equal Opportunity Employer.*

Biology Department. West Chester University's Department of Biology has openings for the 1990-91 academic year for an **ECOLOGIST** and a **HUMAN PHYSIOLOGIST**. These 1-year temporary positions may be renewed for a second year. Ecologist: to teach field-based courses in ecology and population biology and laboratories in general biology. Human Physiologist: to teach laboratories in a nonmajor's human physiology course, as well as laboratories in general biology. Both positions require a Ph.D. and teaching experience. Send curriculum vitae and names and phone numbers of three references, postmarked by 31 July 1990, to: **Dr. Martha Potvin, Department of Biology, West Chester University, West Chester, PA 19383.** *Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### RADIATION BIOLOGIST/ CANCER BIOLOGIST

The Department of Radiation Medicine at Massachusetts General Hospital (MGH) has an opening for a cellular/molecular biologist to do research on chemical and biochemical mechanisms of radioprotection in mammalian cells and DNA. These studies are being pursued with a view to determining how improvements in cancer therapy might be achieved in a major treatment center. The research will be performed in a well-established, fully equipped laboratory in the Cox Cancer Center at MGH. Opportunities exist for multidisciplinary interaction within the research/academic complex of the biomedical community of the Boston area. Applicants are sought who can work at the radiobiology/biochemistry/molecular biology interface in a challenging environment. Ph.D. in radiobiology, biochemistry, or molecular biology required. Level of appointment depends on experience. Concurrent faculty appointment at Harvard Medical School available for suitably qualified individual. Please apply to: **Dr. K. D. Held, Department of Radiation Medicine, Massachusetts General Hospital, Boston, MA 02114.**

*Massachusetts General Hospital/Harvard University are Equal Opportunity/Affirmative Action Employers. Qualified women and minorities are encouraged to apply.*

Atmospheric Research and  
Exposure Assessment Laboratory  
Research Triangle Park, NC



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**T**he United States Environmental Protection Agency is seeking a highly qualified candidate for the position of Deputy Director of the Atmospheric Research and Exposure Assessment Laboratory (AREAL) located in Research Triangle Park, North Carolina. This is a permanent full-time position with a salary range of \$59,216-\$76,982 per annum.

The AREAL, a component of the Office of Research and Development, is responsible for developing research and development policies regarding a major segment of the Agency's programs in the areas of:

- Ambient Air Pollutant Levels and Exposure to Humans and Ecosystems
- Air Quality Monitoring Methods and Techniques, and Source Apportionment, Air Pollutant Transport, Transformation and Fate Models
- Source-to-Receptor Relationships Between Ambient Air Quality and Air Pollutant Exposures
- Long-term Research in Atmospheric Chemistry; Air Pollutant Fate, Transport, and Transformation Processes; Exposure Assessment; Analytical Chemistry; and Predictive Modeling

The incumbent must have experience in the following: planning, coordinating, evaluating, organizing, budgeting, and directing research and development programs; assisting in coordinating activities with representatives of foreign, state, municipal and federal agencies; industry; and academic and private organizations throughout the nation.

Applicants for this position must submit evidence of the following factors: 1) skill in planning, implementing, monitoring and reviewing both long and short-term scientific research programs; 2) skill in developing productivity and other effectiveness-efficiency standards; 3) skill in gathering and analyzing information; 4) skill in the utilization of human resources; 5) skill in the acquisition and administration of financial resources; 6) knowledge of federal procurement procedures; 7) skill in organizational representation and liaison; 8) skill in oral communication; 9) skill in supervising a multidisciplinary staff; 10) skill in written communication; and 11) skill in evaluating programs for effectiveness.

Please submit an SF-171 to: **Rena Sawyer, Human Resources Management Division (MD-29), US EPA, Research Triangle Park, NC 27711; or for further information, call Rena Sawyer at (919) 541-3677.** EPA is an Equal Opportunity Employer.

**UNIVERSITY OF HAWAII  
CANCER RESEARCH CENTER OF HAWAII  
TWO TENURE TRACK POSITIONS FOR  
RESEARCH MEDICAL ONCOLOGISTS**

The University of Hawaii Cancer Research Center of Hawaii is seeking applications from medical oncologists for two tenure track faculty positions in the Center's Clinical Research-Cancer Control Program.

The Center conducts clinical cancer research and cancer control research for participation by all cancer health care professionals in Hawaii. The Center maintains full membership in SWOG and NSABP and a satellite relationship with POG. In addition, local studies are developed to build on programmatic strengths in areas such as liver cancer, gastric cancer, natural products and biologics. Cancer control research is focused on special underserved groups in Hawaii's multiethnic and multicultural population. The Center is responsible for providing educational, administrative and scientific support for all studies introduced into the community. Integrating laboratory research conducted at the Center into clinical studies is an essential activity. Faculty provide scientific direction to the program and generate national cooperative group and local study protocols.

It is anticipated that the successful candidate will also hold a teaching appointment in the Division of Oncology, Department of Medicine, John A. Burns School of Medicine and participate in a teaching-research oncology practice focused on special populations.

**PROGRAM DIRECTOR**

Applicants should have a record of accomplishment in clinical cancer research and teaching. They should have demonstrated organizational and administrative abilities and good communications skills.

Minimum requirements include an M.D. degree, board certification or equivalent in medical oncology and at least seven years of relevant experience. Rank and salary will be commensurate with experience.

**RESEARCH MEDICAL ONCOLOGIST**

Applicants should have experience in conducting clinical research studies and demonstrated teaching abilities. Applicants should also have laboratory research experience in pharmacology or cellular and molecular biology. Alternatively an active involvement in epidemiology or prevention and control research would also be encouraged. Minimum requirements include an M.D. degree, board certification or equivalent in medical oncology and at least three years of relevant experience. Rank and salary will be commensurate with experience.

Interested applicants for the above positions should send a curriculum vitae and a list of three persons from whom references can be obtained to: Brian F. Issell, M.D., Director, Cancer Research Center of Hawaii, 1236 Lauhala Street, Honolulu, Hawaii 96813. Closing Date: August 31, 1990, or until positions are filled.



UNIVERSITY OF CAPE TOWN

**Zoology Dept  
(Conservation  
Genetics):**

**Senior Lecturer, FitzPatrick Institute**

The FitzPatrick Institute at the University of Cape Town is searching for a biologist with PhD training and postdoctoral research and teaching experience in the field of conservation biology in general and population genetics in particular. The successful candidate will be expected to help develop and co-ordinate a one-year MSc programme in conservation biology. Experience in demographic modelling of small populations, knowledge of a computer language (e.g. FORTRAN, true basic or C), and/or proven abilities in the use of molecular tools (e.g. protein electrophoresis and/or the restriction enzyme analysis of DNA) to study natural populations are of particular interest.

A negotiable salary package includes attractive staff benefits such as medical aid, a pension scheme and a housing subsidy in certain circumstances. Further details concerning remuneration will be sent to applicants on request.

A full curriculum vitae and the names, addresses and telephone numbers of three referees should be submitted not later than 31 July 1990, to the Appointments Officer, University of Cape Town, Rondebosch 7700, Republic of South Africa (tel: (21) 650-2192; fax: (21) 650-2138). Further information may be obtained from the above, or from the Counsellor, Science and Technology, South African Embassy, Suite 350, 4801 Massachusetts Avenue, NW Washington DC 20016.

The policy and practice of the University of Cape Town is to oppose discrimination on grounds of gender, race or creed in any sphere of university life, UCT has consistently protested, and continues to protest, against apartheid laws and practices and is committed to working towards a just future for our country. Information on this is available on request.

C68705/1172-0

## POSITIONS OPEN

### BIOCHEMIST

Alliance Pharmaceutical Corp. is engaged in a growth factor research and development effort. A position within the biochemistry group is available for a master's level (or equivalent) person. The ideal candidate is genuinely interested in the discovery and evaluation of possibly novel and useful cell effector molecules. This person should also be able to work independently and thoughtfully and be willing to contribute to the group in a creative manner. Please forward curriculum vitae with academic and professional experience to:

**Philip Dehazy, Ph.D.**  
**Manager, Biochemistry Laboratory**  
**Alliance Pharmaceutical Corp.**  
**P.O. Box 567**  
**Otisville, NY 10963**

Otisville, New York, is in scenic Orange County, about 2 hours from New York City.

### PROFESSOR OF MATERNAL AND CHILD HEALTH

The Harvard School of Public Health is seeking a professor and **CHAIRPERSON** of Maternal and Child Health. Candidates must hold a doctorate in a discipline relevant to maternal and child health studies (for example, child development, obstetrics, pediatrics, epidemiology, nutrition, sociology, anthropology, nursing, and social work). Experience in and knowledge of state, local, and federal maternal and child health programs and agencies, and with international health agencies, is desirable. Candidates should present a solid record of research accomplishment, evidence of excellent teaching skills, demonstrated ability to combine basic and applied research and to work productively in interdisciplinary teams. Proven ability to provide leadership and vision in the development of maternal and child health programs is necessary. Along with background and experience in a maternal and child health area, commitment to professional education in public health and general knowledge of the field are desirable. Expressions of interest should be sent to: **Maternal and Child Health Search Committee, Office of the Dean, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115.** The search committee is particularly interested in hearing from qualified women and members of minority groups.

### DEAN COLLEGE OF PHARMACY UNIVERSITY OF GEORGIA

The University of Georgia invites nominations and applications for the position of Dean of the College of Pharmacy. Professional qualifications and special competencies desired include an earned doctorate, background and experience in pharmacy and/or the pharmaceutical sciences, demonstrated leadership abilities, and a successful record of scholarly contributions commensurate with the rank of full professor. Completed applications will include a letter of application; names, addresses, and telephone numbers of five professional references; and curriculum vitae. These materials should be sent by 1 September 1990 to: **David P. Anderson, Chairman, Search Committee for the Dean of the College of Pharmacy, College of Veterinary Medicine, University of Georgia, Athens, GA 30602.** The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

### DIRECTOR BIO-BEHAVIORAL SCIENCES AND MENTAL DISORDERS

The Institute of Medicine of the National Academy of Sciences is seeking a director for its Board on Bio-Behavioral Sciences and Mental Disorders. Responsibilities include directing the division, managing and developing programs, supervising staff, and coordinating activities. Requires an M.D. and/or Ph.D. or equivalent in the neuroscience or behavioral science field, at least 6 years of experience in the mental health field and health policy issues, demonstrated technical expertise in: neuroscience or behavioral science field, management and staff supervision, administration of program financing and budgets, and organization of projects. Excellent oral and written communication skills, working knowledge of federal agencies, private foundations, and other funding sources required. Please send résumé in confidence to: **Institute of Medicine, NAS 325 (QB), 2101 Constitution Avenue, NW, Washington, DC 20418.** Equal Opportunity Employer.

## POSITIONS OPEN

**LABORATORY DIRECTOR** for CAP-accredited infertility laboratory. Endocrine (RIA), andrology, microbiology, and embryology (IVF) laboratories. Ph.D. in clinical chemistry or biology with postdoctoral experience preferred. Send résumé to: **George L. Gaunt, M.D., Ph.D., Center for Reproductive Medicine, P.A., 2034 Randolph Road, Charlotte, NC 28207.**

**DIRECTOR OF RESEARCH (DOR)**, Dayton VA Medical Center. Must be productive research scientist. Physician preferred but Ph.D. applicants considered. DOR administers the facility's research programs and assists investigators in their research. Must qualify for faculty appointment to Wright State University School of Medicine. Send curriculum vitae to: **Dr. Thomas Mathews, Chairman, Search Committee (151), VA Medical Center, Dayton, OH 45428.** Telephone: **513-268-6511, Extension 2880**, for more information. An Equal Opportunity Employer.



### PHYSICAL OCEANOGRAPHER AND DIRECTOR, SOUTHWEST, FLORIDA COASTAL RESEARCH CENTER

Mote Marine Laboratory, an independent, nonprofit research institution, is seeking a physical oceanographer to serve as Director of the Southwest Florida Coastal Research Center. Applicants must have a Ph.D., experience in research management, and a strong record of extramural funding and publications. The successful applicant will develop research focusing on coastal processes and coordinate center activities on needs of the southwest Florida coastal region. Send résumé to: **Dr. Richard H. Pierce, Director of Research, Mote Marine Laboratory, 1600 Thompson Parkway, Sarasota, FL 34236** by 13 July 1990.

### ECOTOXICOLOGY LABORATORY STUDY DIRECTOR

Exxon Biomedical Sciences, Inc., has an immediate opening for a qualified individual as a study director in our Ecotoxicology Laboratory. The state-of-the-art laboratory includes facilities to culture and test marine and freshwater organisms. Acute and chronic tests of products and effluents are conducted in accordance with GLP and appropriate regulatory guidelines. The position requires the individual to act as a study director with full responsibility for the study design, development of protocols, review and evaluation of the data, and final review and approval of reports. In addition, the position involves some administrative duties including scheduling and coordination of studies, training lab personnel, monitoring ongoing studies, etc. The successful candidate will have a masters in environmental toxicology or a related field and 2+ years of experience in an aquatic testing facility. A working knowledge of TSCA/FIFRA GLPs, statistical methods, PC and mainframe computers is desired. Please forward résumé to:

**Christine Ramos, Human Resources**  
**Exxon Biomedical Sciences, Inc.**  
**Mettlers Road, CN 2350**  
**East Millstone, NJ 08875-2350**  
*Equal Opportunity Employer M/F/H/V.*

**EXPERIMENTAL MYCOLOGIST.** The Department of Botany/Plant Pathology invites applications for an experimental mycology position at the **ASSISTANT/ASSOCIATE PROFESSOR** level (academic year, full-time, tenure system). Appointee will develop and maintain active research programs in molecular and/or physiological mycology and teach undergraduate and graduate mycology. Applicants should have a Ph.D. degree and postdoctoral research experience in molecular, cellular, or medical mycology. Previous teaching experience desirable. Interactions with other departments and programs is anticipated. Salary commensurate with qualifications. Application deadline is 15 August 1990. Send statement of career objective, curriculum vitae, and three letters of reference to: **Dr. A. Rogers, Chairperson of Search Committee, Department of Botany/Plant Pathology, Michigan State University, East Lansing, MI 48824.** Michigan State University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

University of Minnesota entry-level tenure-track position in **ENVIRONMENTAL ENGINEERING MICROBIOLOGY** available 16 December 1990. Send résumé and names of three or more references to: **Dr. W. Maier, Department of Civil and Mineral Engineering, 500 Pillsbury Drive S.E., Minneapolis, MN 55455.** Application deadline 30 September 1990. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

### FACULTY POSITION MICROBIOLOGY AND IMMUNOLOGY

Applications for two tenure-track **ASSISTANT PROFESSORSHIPS** are invited from candidates with a background in virology, immunology, prokaryotic biology, and cell biology utilizing molecular and/or cellular technologies. The aims of the research programs should focus on the pathogenesis of infectious diseases and/or gene expression of normal and neoplastic cells. Candidates should possess a Ph.D. or M.D. with proven ability or high potential for an independently funded, productive research program. Send curriculum vitae, bibliography, and statement of research and teaching interests to: **John M. Lehman, Ph.D., Department of Microbiology/Immunology #A-68, Albany Medical College, 47 New Scotland Avenue, Albany, NY 12208.**

The Albany Medical Center is an Equal Opportunity/Affirmative Action Employer.

### GENE MAPPING

Department of Human Genetics, University of Michigan, is seeking a tenure-track **FACULTY MEMBER** in gene mapping and the molecular biology of human disease. Send résumé, statement of research interests, and names of three references to: **Thomas D. Gelehrter, M.D., Department of Human Genetics, University of Michigan Medical School, Ann Arbor, MI 48109-0618.** Affirmative Action/Equal Opportunity Employer.

### NSERC—WOMEN'S FACULTY AWARD

The University of Victoria, Department of Biology, invites applications for a Natural Sciences and Engineering Research Council of Canada (NSERC), Women's Faculty Award. Applications from female Canadian citizens/landed immigrants in neurobiology, population genetics, quantitative marine ecology, and plant cell physiology will be considered. A Ph.D. is required and postdoctoral experience is preferred. Send curriculum vitae, description of research interests, and names and address of referees to: **The Department of Biology, University of Victoria, Victoria, British Columbia, Canada, V8W 3P6.** Deadline for applications is 15 July 1990.

### UNIVERSITY OF HONG KONG LECTURER IN BIOCHEMISTRY

Applications are invited for a lectureship in the Department of Biochemistry. A higher degree is normally expected and some teaching experience is desirable. Applicants with medical or dental qualifications may have an advantage. The department seeks to appoint scientists with broad interests and may particularly favour those who in addition have special expertise in the fields of lipid and membrane biochemistry, neurochemistry, molecular virology, or human genetics. More than one post may be available.

Annual salary (superannuable) (under review) is on an 11-point scale: HK\$233,700 to HK\$390,600 (11 points) (approximate US\$1 = HK\$7.80 as at 14 May 1990). Starting salary will depend on qualifications and experience. A medically qualified appointee who has just completed the preregistration year will be appointed as lecturer at the minimum point of the scale. 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 (37922), 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. E-mail: APPTUNIT@HKUVM.BITNET.

Closes 20 July 1990.



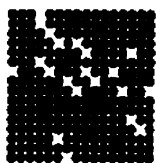
## VIRAL DIAGNOSTICS

### Nucleic Acid Probes

Chiron Corporation, the leader in human hepatitis virus research, is expanding its efforts in the development of diagnostic nucleic acid probe products for the detection of hepatitis viruses and other medically important organisms. These new, sensitive and quantitative diagnostic tests will be based upon Chiron's unique probe technology.

We are seeking highly motivated and exceptional individuals at all levels to join our team. **MOLECULAR BIOLOGISTS, BIOCHEMISTS, VIROLOGISTS and MICROBIOLOGISTS** with experience (preferably industrial) in the characterization and application of specific nucleic acid probes and/or with a working knowledge of the methods to identify human pathogens are encouraged to apply.

Chiron Corporation, located in the San Francisco Bay Area, offers a stimulating and challenging research environment, a competitive compensation package and opportunities for professional advancement. Candidates please send C.V. and 3 references to **Chiron Corporation, Human Resources Dept. - NAC89-92, 4560 Horton St., Emeryville, CA 94608.**



**CHIRON**  
CORPORATION

**Colorado  
State  
University**

### DEAN COLLEGE OF FORESTRY AND NATURAL RESOURCES

Colorado State University invites nominations and applications for the position of Dean of the College of Forestry and Natural Resources. The College is the largest college of forestry and natural resources in the nation with strong programs in education, research, service, extension and international activities. It consists of five departments: Earth Resources, Fishery and Wildlife Biology, Forest and Wood Sciences, Range Science, Recreation Resources and Landscape Architecture and an interdisciplinary research laboratory, the Natural Resource Ecology Laboratory.

As the chief academic officer of the college, the dean is responsible for the strategic planning, administration and coordination of education, research, service and extension programs. The dean reports to the Provost/Academic Vice President. Candidates must have demonstrated administrative and leadership skills, scholarly achievement and a thorough understanding of current natural resources issues. A doctoral degree is required. The successful candidate will have the vision and ability to lead the college in response to the challenges and opportunities of the 21st century.

Interested parties should request a full job description and application materials. All application materials must be received by August 31, 1990. The deadline may be extended if a suitable candidate is not found. The position starts July 1, 1991. All inquiries and nominations should be sent to: **Dr. John C. Ralch, Chair, College of Forestry and Natural Resources Dean's Search Committee, C-138 Clark Building, Colorado State University, Fort Collins, CO 80523. FAX (303) 491-0528.**

CSU is an AA/EEO employer. E.O. Office 314 Student Services Bldg.

### PROGRAM DIRECTORS

Tampa Bay Research Institute (formerly known as Showa University Research Institute) is a non-profit biomedical research Institute established in the State of Florida since 1981.

The Institute is affiliated with two Japanese Universities, Teikyo University, and Showa University Medical School, and with Salem-Teikyo University of West Virginia. The Institute is in the process of establishing a Graduate Program in Biotechnology with Salem-Teikyo University.

The Institute is based in a modern facility with excellent individual laboratory and office space, and centralized biotechnology services. Its central location within the rapidly growing Tampa Bay area is most attractive. Investigators will enjoy complete freedom to pursue research goals. While generous program support is provided, scientists are expected to secure extramural funding. Senior Investigators at the Member and Senior Member level, as well as, Assistant Members are encouraged to apply for any one of the following disciplines: **Molecular endocrinology, Molecular Pharmacology, Molecular Immunology, Neurobiology, Oncogen studies, Molecular Virology, Regulation of gene expression, and Receptor-ligand interaction.**

Interested individuals should send their curriculum vitae, a list of publications and the name of four references to:

**Chairman of Search Committee  
Tampa Bay Research Institute  
10900 Roosevelt Boulevard  
St. Petersburg, Florida, 33716.**

### Tenure-Track Faculty Position in Molecular Oncology

Applications are invited for the position of Assistant Professor (tenure-track in the Faculty of Medicine, University of Manitoba). The successful candidate is expected to establish an outstanding independent research program in molecular structure and/or regulation as part of an Oncology group studying malignancy. The position requires only minimal departmental teaching responsibilities. Requirements include a Ph.D. in Biochemistry or a related field, or an M.D., with at least two years of Postdoctoral experience. Candidates with a strong research background in the structure and function of oncogenes or related areas are preferred. Applicants must have obtained a significant publication record in peer reviewed journals.

Applicants should send a curriculum vitae, an outline of research plans, and the names of three references to: Dr. A.H. Greenberg, Manitoba Institute of Cell Biology, 100 Olivia Street, Winnipeg, MB, Canada R3E 0V9.

Deadline for receipt of applications is one month after the appearance of this ad.

Both men and women are encouraged to apply. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents, although all are encouraged to apply.

**Manitoba Institute  
of Cell Biology**



**BOEHRINGER INGELHEIM** PHARMACEUTICALS, Inc. is engaged in the discovery, development, manufacture and marketing of novel therapeutic agents. We currently have an opening for an experienced Scientist in the Biochemistry Department at our R&D facility located in **DANBURY, CT** (just one hour from New York City.)

## BIOCHEMIST

This position requires a Bachelor's or Master's Degree in Biochemistry or related discipline with experience in Enzymology. Experience with the development of enzyme assays, enzyme kinetics and protein purification required. HPLC experience is desirable.

The incumbent will pursue research on viral enzymes and will be specifically responsible for the evaluation of enzyme inhibitors as well as the investigation of mechanistic questions.

Our compensation/benefits package is highly competitive and includes relocation assistance, a company matched investment savings plan, and a modern, attractive work environment.

Please send your resume and salary requirements to: Dept. MH-036-1S, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v.



**Boehringer  
Ingelheim**

## SCIENTIFIC POSITIONS IN BIOTECHNOLOGY

Enzo Diagnostics, Inc., a dynamic health care company located in New York City, is dedicated to the development of DNA probe based and antibody based diagnostic tests. Enzo offers challenging positions with competitive salaries and benefits.

### Protein Chemist/Molecular Biologist

We are seeking an individual with wide experience in enzymology, immunochemistry and molecular biology to lead a group responsible for development of new non-radioactive DNA probe products.

**Immunology** - This is a senior position requiring significant past accomplishments in the field. The appointee will lead in the identification and development of new immunodiagnostic and immunotherapeutic products and will supervise preparation and characterization of monoclonal antibodies.

**Organic Chemistry** - A synthetic organic chemist with postdoctoral experience is required. Interest and experience in stereospecific syntheses, synthesis of homocyclic rings or nucleic acids are desirable.

All positions require a Ph.D. or equivalent. For immediate consideration, please forward your resume to:

**ENZO DIAGNOSTICS, INC.**

325 Hudson Street, New York, NY 10013  
Attn: Dept. S.F.

## MICROBIOLOGIST

### Senior Scientist/Project Leader

DIFCO Laboratories, a world leader in products for the microbiology laboratory, has a position open for a creative, result oriented scientist with fundamental training in bacteriology relating to microbial physiology and clinical microbiology. Candidate should have a Ph.D. with solid training in microbiology, proven leadership and innovative skills. The successful applicant will lead projects relating to the development of new diagnostic products in the area of clinical microbiology.

DIFCO R & D Center is located in Ann Arbor, Michigan, home of the highly rated University of Michigan. Reply to:



D. S. Kerschbaum  
**DIFCO LABORATORIES**  
Research and Development Center  
1180 Ellsworth Road  
Ann Arbor, MI 48108 USA

EEO M/F

### DIRECTOR

Division of Space Biomedicine

The Universities Space Research Association (USRA) is seeking a Director for its Division of Space Biomedicine (DSB). The USRA is a private non-profit corporation, organized in 1969 by the National Academy of Sciences as a consortium of universities chartered to promote research, development, and education associated with space science and technology. The consortium membership now consists of sixty-seven universities.

The Division of Space Biomedicine was created in June 1983 to organize and direct a program of university participation with NASA's Space Biomedical Research Institute (SBRI). The SBRI is chartered to work on biomedical problems associated with the spaceflight environment. The DSB is located in Houston, Texas adjacent to Lyndon B. Johnson Space Center of NASA.

The DSB consists of a core staff and variable number of visiting scientists from the university community. The director of the DSB will be responsible for identifying research tasks, coordinating proposals and recommendations from the university research community, and planning the ground-based and inflight projects intended to solve space biomedical research problems associated with the spaceflight environment.

The applicant should have a broad research background with at least eight years experience in managing research efforts. The individual should possess an M.D., Ph.D. or equivalent degree and should have a demonstrated ability to engage in applied research and education.

Salary and benefits are competitive and will depend on the individual's qualifications. Interested individuals should apply no later than July 22, 1990 with complete resume of academic, professional and personal data, including three references to:

W. D. Cummings, DSB Search Committee  
Universities Space Research Association  
Suite 212, American City Building  
Columbia, MD 21044

USRA is an Equal Opportunity Employer

## PHARMACOLOGIST - Ph.D.

Merck, the leader in biomedical research, is offering an excellent career opportunity for a Cardiovascular Scientist to join an active team of investigators involved in the development of anti-coagulant, antithrombotic and thrombolytic therapies. This position requires a Ph.D. in pharmacology, physiology, or the equivalent, a thorough knowledge of blood coagulation and thrombosis, and experience with in vivo cardiovascular preparations. Experience with in vivo models of thrombosis is highly preferred. Active collaboration with other investigators in the group will be required, and the publication and presentation of experimental results is encouraged.

Excellent salary and benefits accompany this position at our modern research laboratories located 25 miles northwest of Philadelphia. Please send resume with salary requirements to:

**Personnel Manager - A-16**  
**Research Personnel, WP42-2**  
**Merck Sharp & Dohme**  
**Research Laboratories**  
**West Point, PA 19486**  
EEO/AA/VH/Employer



**Merck & Co., Inc.**





## **ENDOWED CHAIR CHAIRMAN, NEW GENETICS DEPARTMENT**

St. Jude Children's Research Hospital, a private research institute, is creating a new Department of Genetics. The chairperson will be expected to direct an internationally recognized research program in contemporary genetics and will shape the future of genetics research within the institution through new faculty recruitment and by contributions to its overall scientific leadership. The Department of Genetics will be located in a new 240,000 square foot research building to be completed in early 1991, which will also accommodate ongoing basic science programs in Virology and Molecular Biology, Biochemistry, Immunology, Pharmacology, and Tumor Cell Biology, leaving ample space for further future expansion. The Chairman's salary will be provided through committed endowment funds, together with additional resources commensurate with the needs of a dynamic and ambitious individual. Opportunities exist to interact with strong clinical programs in pediatric Hematology/Oncology and Infectious Disease. Applicants should submit a curriculum vitae and the names and addresses of four references to:

**James N. Ihle, Ph.D.  
Chairman, Department of Biochemistry  
St. Jude Children's Research Hospital  
332 North Lauderdale  
Memphis, Tennessee 38105**

*St. Jude Children's Research Hospital is an Equal Opportunity Employer*



### **FACULTY OF SCIENCE**

## **SMURFIT PROFESSORSHIP OF MEDICAL GENETICS**

The Smurfit Chair of Medical Genetics has been established by an endowment from the Smurfit Group to mark the 400th anniversary of the foundation of Trinity College, Dublin.

The person appointed will be either a scientist of standing in the field or a younger worker who can demonstrate the ability to establish within the Department of Genetics a strong research programme on the scientific aspects of Medical Genetics. The Smurfit Professor will also provide scientific support for the development of medical genetics services in Ireland although major clinical responsibilities are not envisaged and a medical degree is not a requirement.

Further particulars including details of salary and other benefits may be obtained from, and discussed with,

**The Secretary to the College  
West Theatre  
Trinity College  
Dublin 2  
TEL. 778421/FAX 722853**

to whom formal applications should be sent, preferably before *Friday, 20th July 1990.*

National Library of Medicine  
National Institutes of Health  
Public Health Service  
Department of Health and Human  
Services

## DIRECTOR

National Center for  
Biotechnology Information  
(NCBI)

The National Library of Medicine (NLM), National Institutes of Health (NIH), invites nominations and applications for the position of Director, National Center for Biotechnology Information (NCBI). This is a Civil Service position in the Senior Executive Service (SES), with a salary range of \$71,200 to \$79,200 per annum. The person selected may be eligible for Physician's Comparability Allowance up to \$20,000 per year. A one year probationary period must be served by the individual selected if not currently in the Senior Executive Service.

The Director, National Center for Biotechnology Information, will have full responsibility for planning, directing and coordinating application of computer and communications technologies to advance molecular life sciences research and health care delivery.

For more information, contact Ms. Rita Sweeney at (301) 496-4943. The following forms are **required**: Application for Federal Employment (SF-171), accompanied by a current curriculum vitae and bibliography. These must be submitted to:

**Ms. Rita Sweeney**  
National Library of Medicine  
Office of Personnel Mgmt.  
Building 38, Room 2N05  
8600 Rockville Pike  
Bethesda, Maryland 20894

*Applications Must Be Post-  
marked No Later Than  
July 17, 1990.*

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

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

## POSITIONS OPEN

### FACULTY POSITION

University of Hawaii at Manoa: Joint appointment in the John A. Burns School of Medicine Department of Anatomy and Reproductive Biology and the Pacific Biomedical Research Center available July 1990. The tenurable position, subject to position clearance, will be at the **PROFESSORIAL/RESEARCHER** level and the person selected should have demonstrated an ability to maintain a well-funded research program in ethopharmacology. Teaching responsibilities may include assisting in developing a graduate research program in the neurosciences and tutoring in a problem-based medical education curriculum. Qualified candidates should have a Ph.D. degree in psychology and a record of research in ethopharmacology recognized nationally and internationally. Applicants should provide curriculum vitae and the names and addresses of three references to: **Dr. F. C. Greenwood, Pacific Biomedical Research Center, 1993 East West Road, Honolulu, HI 96822.**

Closing date: 11 July 1990.

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

### THE UNIVERSITY OF MICHIGAN DIVISION OF CANCER BIOLOGY DEPARTMENT OF RADIATION ONCOLOGY FACULTY POSITION IN CANCER CYTOGENETICS

Applications are invited for a faculty position in the field of cancer cytogenetics within the Division of Cancer Biology at the University of Michigan. Candidates for this position should have at least 2 years of pertinent postdoctoral experience. The successful candidate will be expected to develop a nationally recognized independent research program. A wide variety of interactions with our faculty are possible in many areas of genetics, biochemistry, molecular and cellular biology, and clinical cancer research. We provide excellent physical facilities, a stimulating research environment, and competitive salary and benefits. Applicants should provide curriculum vitae, two copies of recent representative publications, and a detailed description of research goals. The applicant should also arrange for three letters of recommendation to be sent directly to us.

Submit applications to: **Jeffrey M. Trent, Ph.D., Director, Division of Cancer Biology, Department of Radiation Oncology, University of Michigan, MSRB-II C560B, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0668. Telephone: 313-936-7380.**

*The University of Michigan is an Equal Opportunity/Affirmative Action Employer and applications from female and minority group members are strongly encouraged.*

**INSTRUCTOR IN PHARMACOLOGY.** Position available at the University of Missouri-Columbia. Duties to include coordinating and teaching the nursing pharmacology course and teaching in the medical pharmacology course offered to second-year medical students. The successful candidate should have a Ph.D. or M.D. in a related basic science area, and will be encouraged to apply for grant support to develop independent research activity. Send curriculum vitae and three letters of recommendation to: **Dr. Hyun Dju Kim, Professor and Chairman, Department of Pharmacology, University of Missouri-Columbia, One Hospital Drive, Columbia, MO 65212.** Applications will be received until 1 August 1990. *The University of Missouri-Columbia is an Equal Opportunity/Affirmative Action Employer.*

### HUMAN ANATOMY INSTRUCTOR

The Department of Biology, University of Alabama at Birmingham, invites applications for a full-time instructor of human anatomy (nontenure track). Candidates should have a minimum of a master's degree and experience in human anatomy. The successful applicant will be expected to possess good oral communicative skills and a commitment to excellence in teaching students in allied health programs. Applications will be reviewed beginning 1 August 1990, but will be accepted until position is filled. Desired starting date is 1 January 1991 (negotiable). Applicants should submit curriculum vitae, names of three references, and a brief statement of teaching competency and other pertinent information to: **Dr. Daniel D. Jones, Chair, Department of Biology, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294.**

*The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### FISHERY BIOLOGIST GS-11/12

Several permanent positions with U.S. Department of Commerce, National Marine Fisheries Service, Woods Hole, Massachusetts. Conduct studies of the dynamics of marine fish populations in New England and Mid-Atlantic waters, particularly effects of fishing on important commercial fish and shellfish species. Research is used in development of management programs. Knowledge of fisheries population assessment, computer programming, and population modeling desired. Salary range \$29,891 to \$35,825.

Applications accepted until 9 July 1990. Contact: **Kathryn McArthur** for information and application forms, **Department of Commerce, Eastern Administrative Support Center, Room 411, 253 Monticello Avenue, Norfolk, VA 23510. Telephone: 804-441-6880.** *The Department of Commerce is an Equal Opportunity/Affirmative Action Employer.*

**MARINE MICROBIOLOGY/FISH PATHOLOGY.** The right individual is needed to build a new research program in marine microbiology/fish pathology at The Living Seas in EPCOT Center. Requirements include a Ph.D. and excellent ability to work with people. Superb facilities, interdisciplinary staff, and opportunity to cooperate with other marine-oriented research institutions. Closing date 15 July 1990. Contact: **Paul Buss, Professional Staffing, Walt Disney World Co., P.O. Box 10,090, Lake Buena Vista, FL 32830.**

**MEDICAL PHYSICIST.** Forty hours per week: 8:00 a.m. to 4:30 p.m., Monday to Friday; \$36,000 per year. Working in the field of radiation oncology to: (i) research, develop, and implement a stereotactic procedure using Siemens KD-2 linear accelerator, using bioinstrumentation and measurement; (ii) develop a three-dimensional dose optimization program for the above treatment; (iii) teach and assist medical residents. Experience not required but must have a master's degree in medical physics, major in radiological physics. Graduate work must include minor in bioengineering. The graduate study must also have at least one course in bioinstrument and measurement. Send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Mr. Robert S. Felton. Reference: V-IL 1539-F.** *An employer-paid ad.*

### MOLECULAR GENETICIST CARLETON COLLEGE

Applications are invited to fill a 1-year appointment as a geneticist in the Department of Biology starting 30 August 1990. Teaching responsibilities include an upper level lecture/laboratory course in genetics; one in molecular biology, immunology, microbiology, or area of specialty; and participation in a team-taught introductory course in energetics/genetics. Ph.D. preferred. Rank will be determined by level of experience. Under extraordinary circumstances appointment may be made as associate or full professor. *Women and minority candidates are strongly encouraged to apply.* Send curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, and three letters of recommendation to: **Dr. G. J. C. Hill, Department of Biology, Carleton College, Northfield, MN 55057-4025** by 15 July 1990. *Carleton College is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION

In virology available immediately to study the molecular biology of RNA-RNA recombination in plant mRNA viruses in NIH-funded project. Experience with molecular techniques desirable. Two/three years available. Send curriculum vitae and three references to: **Dr. J. J. Bujarski, Northern Illinois University, Department of Biology/PMBC, DeKalb, IL 60115. Telephone: 815-753-0601.**

### POSTDOCTORAL POSITION

Available immediately to work on a 3-year project to identify novel proteinases involved in emphysema and cancer. Expertise in protein and peptide chemistry or cell biology desirable. Send résumé with references to: **Dr. Robert W. Mason, Department of Biochemistry and Nutrition, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS** available immediately to study the immunobiology of HIV infection and human neoplasia utilizing human monoclonal antibodies. Candidates should have expertise in the immunochemistry, immunodetection, and immunobiology of monoclonal antibodies. Send curriculum vitae, a brief letter of interest, and three references to: **Dr. Marshall Posner, Director, Human Monoclonal Laboratory, Roger Williams General Hospital, Brown University Medical School, 825 Chalkstone Avenue, Providence, RI 02908.** *Brown University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL SCIENTIST.** The Bone Marrow Program of the Department of Medicine at the University of Kentucky has a 1-year position for a postdoctoral scientist. The successful candidate must have a strong background in molecular biology including Western blotting. Emphasis will initially be on the definition and molecular characterization of monoclonal antibody defined antigens. Qualified applicants should submit their curriculum vitae to: **John S. Thompson, M.D., Chairman, Department of Medicine, University of Kentucky, 800 Rose Street, Lexington, KY 40536-0084.**

**A POSTDOCTORAL POSITION IN EVOLUTIONARY ECOLOGY** will be available at the University of Minnesota, beginning September 1990 for research on the population structure of scale insects using allozyme electrophoresis, RFLP and sequencing techniques, and field experiments. Send curriculum vitae, statement of research experience, and referees' addresses to: **Dr. D. N. Alstad, Department of Ecology, Evolution and Behavior, University of Minnesota, 318 Church St. S.E., Minneapolis, MN 55455** by 1 August 1990. *Equal Opportunity Educator and Employer.*

**POSTDOCTORAL POSITION.** Available 1 July 1990 to study the expression of chorionic somatomammotropin and renin genes in human placental tissues. Experience in cell culture, transfection, general recombinant DNA, and protein-DNA interactions is advantageous, however highly motivated individuals with backgrounds in related areas are encouraged to apply. *U.S. citizenship or permanent residency status required.* Send letter of application to: **Dr. Daniel F. Catanzaro, Department of Physiology and Biophysics, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** Telephone: 212-746-6497, FAX: 212-746-8451.

**POSTDOCTORAL POSITIONS.** Available immediately to work on projects relevant to understanding of the structure of human chromosome 21. Work will include construction of a complete physical map of chromosome 21 and isolation and characterization of genes located on this chromosome, including those genes possibly relevant to Down syndrome, Alzheimer's disease, and other human diseases associated with abnormalities of chromosome 21. Techniques include somatic cell genetics, molecular biology, biochemical analysis of metabolic pathways, transgenic mouse studies, and molecular cytogenetic procedures such as fluorescence in situ hybridization. Send curriculum vitae, brief statement of interests, and names of three references to: **David Patterson, Ph.D., President, Eleanor Roosevelt Institute for Cancer Research, 1899 Gaylord Street, Denver, CO 80206.**

*Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION.** Applications are invited for **POSTDOCTORAL RESEARCH** positions at the University of Pennsylvania beginning immediately to study molecular structure and function of the T and B cell repertoire during autoimmune differentiation; molecular structure of nephritogenic antigens, antigen-specific lymphokines, and cross-reactive idiotypes; gene regulation of MHC determinants in somatic cells and gene regulation of extracellular matrix modulated by autoimmune responses. Experience in eukaryotic molecular biology and/or biochemistry is desirable. Applicants must be eligible for funding from the NIH (U.S. citizens and permanent residents). Send letter of application, curriculum vitae, and two letters of reference to: **Dr. Eric G. Neilson, Chief, Renal-Electrolyte Section, 700 Clinical Research Building, University of Pennsylvania, 422 Curie Boulevard, Philadelphia, PA 19104-6144.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

22 JUNE 1990



## Experimental Toxicology Postdoctoral Scientist

CIBA-GEIGY Pharmaceuticals Division, headquartered on 100 acres in Summit, New Jersey, offers challenging opportunities in a mechanistic-based research program in Experimental Toxicology.

We are seeking a Postdoctoral Scientist to join our investigative research team in studying mechanisms of drug-induced oxidative cellular injury using in vitro test systems. Candidates must have a PhD in Toxicology or a related field. Experience with techniques in primary cell culture (including hematopoietic systems), biochemistry/molecular biology, and immuno/myelotoxicology is desirable. Participation in scientific forums, both internal and external, and presentation/publication of research findings are highly encouraged.

Experimental Toxicology is a multidisciplinary group focused on: 1) target-organ toxicity screening, 2) investigative/mechanistic studies, 3) animal alternatives, and 4) new technologies for toxicology research. The successful candidate may participate in a number of related projects.

We offer competitive salaries and comprehensive benefits in an environment conducive to personal and professional growth. Please send your resume with salary requirements to: **Staffing Center, CIBA-GEIGY Corporation, Pharmaceuticals Division, Dept JK, 556 Morris Avenue, Summit, New Jersey 07901.** We Are An Equal Opportunity Employer M/F/H/V.

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## Toxicology Fellowships Available

The University of Mississippi Medical Center has five fellowships available for graduate training in toxicology. The program prepares students for work in academic, industrial research or government settings. The fellowship includes an \$8,500 stipend, tuition and fees and travel to at least one national scientific meeting per year for presentation of the fellow's research. Stipends are funded by the National Institute of Environmental Health Sciences. Applicants should have a baccalaureate degree with a strong background in biology, chemistry or a related discipline. U.S. citizenship or a permanent visa is required.

The Department of Pharmacology and Toxicology is internationally known for research in the toxic effects of chemicals and drugs on the respiratory, hepatic, cardiovascular and central nervous systems and in the fields of biochemical and analytic toxicology. The department has 12 faculty, 19 graduate students and 15 postdoctoral fellows.

The University of Mississippi Medical Center campus is located in Jackson, capital and the major metropolitan center of the state. For further information contact: Dr. Harihara M. Mehendale, Professor of Pharmacology and Toxicology, Department of Pharmacology and Toxicology, the University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216-4505.

The University of Mississippi Medical Center is an equal opportunity employer, M/F/H/V.

**RESEARCH ASSISTANT IV (Chemical Engineering)** for University in NE Ohio to conduct research on new methods of separation especially in the areas of mass transfer & reaction in rotating packed beds & fractionation of fine particle slurries by cyclic processes using bi-directional flows & partial sedimentation & resuspension. Job duties include designing & constructing bench scale & pilot plant equipment; interfacing equipment to personal computers for controlling operation & data acquisition; analyzing samples using Spectrophotometry, Sedigraph instruments, Gas Chromatography-Mass Spectroscopy (GC-MS), Flame Photometric Detectors (FPD), & Thermal Gravimetric Analysis (TGA); mathematical modeling & APL/BASIC programming for processing experimental data; presenting technical papers at professional meetings; writing research proposals, papers & reports; and advising undergraduate & graduate Chemical Engineering research students. Requires an M.S. in Chemical Engineering & 4 years chemical engineering R&D experience; Ph.D. in Chemical Engineering required in lieu of M.S. & 4 years experience. Must have experience with data acquisition software development for computer controlled & monitored experiments as evidenced by submission of a paper or report authored by the candidate describing the software he (she) developed (not specialization of general purpose packages such as LabTech Notebook); pilot plant scale centrifugal equipment construction & operation for continuous flow processing as evidenced by submission of a paper or report authored by the candidate describing the process, its construction & operation, & the candidate's contributions (not use of laboratory or process centrifuges made by others); spectrophotometric instrumentation design & construction as evidenced by submission of a paper or report authored by the candidate describing the instrument, its construction & operation, & the candidate's contributions (not use of standard or modified commercially available instruments); knowledge of & experience with the programming language APL for processing & reducing experimental data as evidenced by submission of a paper or report authored by the candidate describing the software (not specialization of general purpose packages such as Lotus 1-2-3). 37½ hr/wk, 8:30 am-5:00 pm, Mon-Fri, \$25,165/yr. Must have proof of legal authority to work permanently in U.S. Qualified applicants should submit C.V. with names & addresses of 3 references as well as the above required papers & reports in duplicate (no calls) to G. Maugans, JO# 1084554, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, Ohio 43216. The position is with an equal opportunity, affirmative action, employer.

## California Institute for Medical Research

*Research Extending from Discovery of Cause through Cure of Human Diseases*

CIMR is embarking on a 10-year plan of expansion in basic and clinical research on selected human diseases. This small independent non-profit institute in San Jose plans to add established research programs with a focus on understanding and controlling human diseases through investigative research in the fields of neuroscience, carcinogenesis, aging, and infectious diseases.

### Endowed Chairs

**in Neuroscience, Carcinogenesis, Aging, and Infectious Disease**

CIMR plans to establish its first endowed chair in one of the four fields listed above at the earliest possible date and at the latest by 1992. The investigator chosen for this first appointment should be an established investigator with a successful history of securing continued grant support. The recipient of this chair should be able to provide scientific leadership to a group of principal investigators and postdoctoral fellows in a core department, and should demonstrate an interest to develop scientific interaction with our current CIMR programs. CIMR currently has NIH-funded programs in Parkinson's disease, human genetics of carcinogenesis, age-related neurodegenerative diseases, neurophysiology, and myocology.

### Research Scientists

CIMR wishes to attract new investigators in the four areas above. Applicants will be favored who have already secured funding or show great promise for funding through uniqueness of their scientific approach.

CIMR, San Jose, and the San Francisco Bay Area offer great potential for scientific achievement and collaboration with many nearby California universities and a well developed biotechnology industry. The Bay Area is also noted for its excellent weather and physical beauty. San Jose is a city of great charm which is undergoing physical and cultural revival with its recently renovated downtown area.

We actively promote affirmative action and equal opportunity employment. For consideration please send your resume, indicating position of interest and including a description of research goals, and a list of at least three references to:

John Leavitt, Ph.D.  
Scientific Director  
California Institute for Medical Research  
2260 Clove Drive  
San Jose, California 95128  
(408) 998-4554

## RESEARCH SCIENTISTS

PANLABS is expanding its U.S. laboratory facilities. We have opportunities for scientists with a demonstrated record of scientific innovation and independence. Positions available:

**Ph.D. — Biochemistry, Molecular Biology,  
Pharmacology, or other related area  
3-5 years experience**

Responsibilities include participation in projects involving cloning and expressing mammalian proteins in cultured cells, and the development of radioligand binding and enzyme assays directed at drug discovery and characterization.

**Ph.D. — Molecular Genetics, Natural Products  
Chemistry, Biochemistry  
Postdoctoral experience or experience  
with industrial microbes preferred**

Responsibilities include training and supervision of technical staff in cloning and characterizing gene clusters for the biosynthesis of secondary metabolites. Position requires skills and experience in molecular genetics, natural products chemistry and biochemistry. Candidate must have good communication skills, publications, and strong desire to work with a team.

**BS/MS — 2-5 years experience**

Responsibilities include development, validation and implementation of high-throughput assays for drug discovery and characterization, including radioligand binding, enzyme activity, and cellular functional response assays. Background in biochemistry and molecular biology desirable.

PANLABS is a growing U.S. based international company that has provided R&D services to pharmaceutical companies and the fermentation industry worldwide for 20 years. Located in the high tech corridor north of Seattle, PANLABS offers competitive salaries and benefits. Submit CV with names and phone numbers of 3 references to:

PANLABS, INC.  
Attn: Human Resources Manager  
11804 North Creek Parkway South  
Bothell, Washington 98011  
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## BS/MS Scientists

GenPharm International is a rapidly growing biotechnology company specializing in transgenic animal technology, with subsidiaries in the U.S. and Europe. We are seeking research associates and assistants for our Mountain View, California facility. You will join a dynamic team of scientists using newly developed technologies in mammalian molecular genetics to solve a technically and intellectually challenging problem in molecular immunology.

### Molecular Biology

You must have experience in the isolation and characterization of cloned genes, including plasmid constructions, restriction mapping, and Southern analysis. Proficiency in DNA sequencing, RNA isolation and analysis and small animal surgery is preferred.

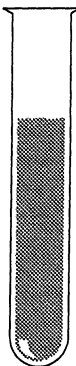
### Cell Biology

You'll be responsible for the generation and culture of mouse embryonic stem cells, transfection of cells, and basic analytical techniques, including PCR and Southern analysis. Experience with cell culture is necessary, but ES cell experience is not a requirement.

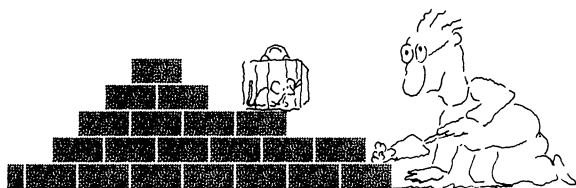
Both positions require an MS/MA with academic research experience or a BS/BA with at least 1 year of post-graduate research work.

We offer a competitive salary and benefits package including a stock option program. Qualified candidates are invited to forward a c.v. to GenPharm International, Attn: LF, 2375 Garcia Avenue, Mountain View, CA 94043. We are an equal opportunity employer.

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## Postdoctoral Researchers

### Immunology/Cell Genetics

Genentech, Inc., a leader in the field of biotechnology, has excellent opportunities for Postdoctoral Researchers in our Immunology and Cell Genetics departments.

In our Immunology department, we have an opportunity to study the interactions between growth factors and cytokines in the regulation of T-cell functions. The qualified candidate will have a strong background in cellular and molecular immunology. Dept. MP

A position is also available in Immunology to study down-regulation of inflammatory responses. The candidate should have a strong background in cellular immunology. Some experience in molecular biology and/or in vivo models of inflammatory disease is desirable. Dept. PJ.

Our Cell Genetics department has a position available for a Postdoctoral Researcher to study growth factors controlling liver regeneration, mechanism of signal transduction and effects on transcriptional regulation. Ph.D. required. Dept. PG.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, please send your resume, indicating appropriate department, to Yvonne Davino, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

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## Faculty Positions In

### MOLECULAR NEUROBIOLOGY

The Biotechnology Center, in collaboration with academic departments within the colleges of Biological Sciences, Medicine and Pharmacy, invites applications for three joint tenure track faculty positions. Successful candidates will occupy new laboratories on the Neurobiology floor of the Biotechnology Center and join existing faculty whose research efforts focus on gene expression in nervous tissue during development and aging. This group will shortly expand to 10 faculty.

Applicants for **Assistant Professorships** should demonstrate exceptional potential to develop strong research programs that apply tools of molecular biology to address significant problems in neurobiology. Senior candidates with ongoing programs of excellence will be considered for an **Associate Professorship**. Qualified molecular neurobiologists working with vertebrate or invertebrate systems will receive careful consideration. Candidates who utilize transgenic mice in the course of their research are especially encouraged to apply.

The Ohio State University is establishing an outstanding program in molecular neurobiology and neuroscience which is reflected by quality research facilities and highly competitive start-up funds and salary.

Screening of candidates will begin on August 15, 1990. Applicants should submit a curriculum vitae, statement of research plans, and names and addresses of three

references to **Dr. Anthony Young, Chairperson, Molecular Neurobiology Search Committee, Ohio State Biotechnology Center, Rightmire Hall, 1060 Carmack Rd., Columbus, OH 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

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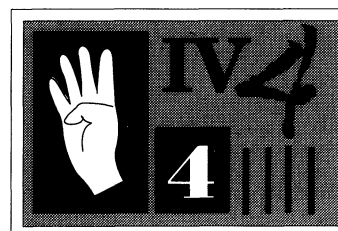
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**MAMMALIAN PHYSIOLOGY** — MS or PhD is required.

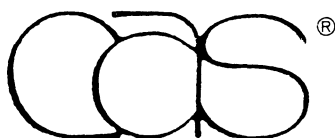
**PHARMACOLOGY** — MS or PhD and reading knowledge of French or German languages is required.

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**TOXICOLOGY** — MS or PhD is required

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



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## Director Center For Biotechnology Northwestern University

Northwestern University invites applications and nominations for a Director of the newly created Center for Biotechnology, which encompasses all life science programs of the University. The goals of the Center are to create an environment that stimulates biotechnology research, to enhance collaborative interactions between biotechnology companies and the University, and to facilitate the transfer of biotechnology advances and trained scientists to the biotechnology industry.

Reporting directly to the Vice President for Research, the Director will have primary responsibility for the general operation of the Center, including financial management, planning, and corporate relations, and will serve as Chair of the Center's Executive Board.

Qualifications include a Ph.D. in the biomedical sciences, significant experience in both academic and industrial settings, including senior managerial responsibility at a major biotechnology or pharmaceutical firm.

Appointment of the Director will be on September 1, 1990, for an initial term of five years, and carries an attractive starting salary and a faculty-level appointment.

Applications and nominations should be sent by July 15, 1990, to:

Professor Daniel I. H. Linzer  
Chair, Director Search Committee  
Department of Biochemistry  
Molecular Biology and Cell Biology



**Northwestern University**  
2153 Sheridan Road  
Evanston, IL 60208

EEQ/AA Employer. Employment eligibility verification required upon hire.

## TOXICOLOGIST CELL BIOLOGY/PRODUCT SAFETY

The Gillette Medical Evaluation Laboratories, a division of The Gillette Company, has an opening for a toxicologist in product safety assessment. Responsibilities of this entry-level position include the review and analysis of current *in vitro* testing methodology and results; the safety/risk assessment of ingredients and formulas; and the implementation of applicable government regulations in order to ensure the distribution of safe consumer products. Work involves cooperation in a team effort to evaluate *in vitro* testing in-house, initiation of clinical/toxicologic product safety studies and evaluation of test data, and the review of drug claims and consumer medical comments.

Qualified candidates will possess a Ph.D. in Cell Biology (Tissue Culture) or Toxicology as well as experience in *in vitro* testing and familiarity with current literature on alternatives to animal testing. Familiarity with designing clinical/toxicologic tests for product safety evaluation and knowledge of industrial hygiene is desirable.

Gillette Medical Evaluation Laboratories is located in a new facility, outside of Washington, D.C., in an area rich in government, private, and academic scientific laboratories. We offer an excellent compensation, benefits, and relocation package. For consideration, please send a confidential resume to:



Gillette Medical Evaluation  
Laboratories  
Personnel Office  
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Gaithersburg, MD 20879

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## SENIOR RESEARCH ASSOCIATE/ SCIENTIST

A Ph.D. in Physiology, Pharmacology and Electrophysiology with post-doctoral experience is sought to participate in an active research team to study the physiology and pathophysiology of the cardiovascular and respiratory systems. If possible, experience in molecular biology, immunology and small animal surgery is preferred.

The candidate should be productive and have extramural funding record or have the ability or potential to procure extramural funds. The position is at the Senior Research Associate or Research Scientist level.

Please send curriculum vitae to:

**Mr. Leon Halber**  
Chairman of the Board



**Deborah Research  
Institute**  
Trenton Road  
Browns Mills, NJ 08015

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## MOLECULAR BIOLOGIST

Molecular Biologist needed with experience in cloning, sequencing and expression of rotavirus genes with knowledge of relevance of gene product(s) required for induction of protective antibodies for rotavirus vaccine development for humans. Experience in determining interrelationships of various rotaviruses by study of antibodies to expressed proteins by various immunologic assays.

Salary is \$44,477 per annum.

Please contact the NIAID Personnel Office for further information: (301) 496-4634.

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## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available beginning 1 August 1990 to study specific gene expression in acquired salt tolerance at the cellular and whole plant level. Ph.D. in molecular biology, biochemistry, or related field. Experience in recombinant DNA techniques and molecular biology is highly desirable. Send curriculum vitae and names of three references by 1 August 1990 to: **Dr. Ilga Winicov, Department of Biochemistry, University of Nevada, Reno, NV 89557.** *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION.** Immediately available for 2 years to study the physiology of single olfactory receptor and bulbar neurons of fish to individual amino acid stimuli and to their mixtures. Ph.D. and electrophysiological experience are necessary. Send curriculum vitae and addresses of three references to: **Dr. John T. Caprio, Department of Zoology and Physiology, Louisiana State University (LSU), Baton Rouge, LA 70803.** *LSU is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION.** Available in cellular and molecular neurobiology to investigate mechanisms controlling the differentiation of retinal neurons and photoreceptors using cultures of isolated retinal precursor cells. The projects are multidisciplinary, allowing the opportunity to use and learn the techniques of cell culture, molecular biology, immunocytochemistry, autoradiography, and extracellular matrix biochemistry. Please mail curriculum vitae and the names, telephone numbers, and addresses of three references to: **Dr. Ruben Adler, Wilmer Institute, Johns Hopkins University School of Medicine, Baltimore, MD 21205.**

### POSTDOCTORAL POSITION MOLECULAR GENETICS

Available immediately to investigate molecular and somatic cell approaches to mechanisms influencing human genome stability. Ongoing efforts utilize heritable disorders with mutant cellular phenotypes of chromosomal mapping and cloning of genes and/or DNA sequences with relevance to DNA repair, centromere structure, and chromosome evolution and stability. Applicants should have a Ph.D. and experience with molecular or somatic cell techniques. Send curriculum vitae and names of three references to: **Dr. Roger A. Schultz, Director of Molecular Genetics Laboratory, Division of Human Genetics, University of Maryland, 655 West Baltimore Street, Baltimore, MD 21201.** Telephone: 301-328-8497.

**POSTDOCTORAL POSITION** available, University of Florida. Support is available for an individual with a Ph.D., or equivalent degree, in biochemistry, molecular biology, immunology, or microbiology to pursue subunit vaccine development for the rickettsial parasite, *Anaplasma marginale*. Parasite surface proteins involved in invasion of host erythrocytes will be identified, cloned, and characterized, and recombinant products based on these surface proteins will be isolated and tested for their immunoprotective efficacy in cattle. Interested individuals should send curriculum vitae, statement of research goals, and three letters of reference to: **Dr. David R. Allred, Department of Infectious Diseases, Building 471, Mowry Road, IFAS 633, University of Florida, Gainesville, FL 32611.** *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION IN BEHAVIORAL NEUROPHARMACOLOGY

The Department of Pharmacology and Therapeutics, Louisiana State University Medical Center (LSUMC)—Shreveport, invites applications for a postdoctoral position in neuropharmacology. Specific projects involve the study of neuropharmacological mechanisms mediating the discriminative stimulus and behavioral effects of cocaine and the study of the role of central beta adrenergic receptor subtypes in behavioral regulation and in the mediation of the behavioral effects of antidepressant drugs. Candidates should have interest and experience in relevant areas of behavioral neuropharmacology, such as operant behavioral pharmacology, drug discrimination, receptor pharmacology, or HPLC analysis of neurotransmitters. Salary depends on previous experience. Please send curriculum vitae and three reference letters to: **James M. O'Donnell, Ph.D., Department of Pharmacology and Therapeutics, LSUMC-Shreveport, P.O. Box 33932, Shreveport, LA 71130-3932.** *The university is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** To analyze effects of climatic and anthropogenic processes on landscape transformation in mid-Atlantic United States as recorded in the stratigraphic record. The applicant should be trained in paleoecology and statistical techniques including time series analysis. Available immediately. Send curriculum vitae and names of three references to: **Dr. Grace S. Brush, Department of Geography and Environmental Engineering, The Johns Hopkins University, Baltimore, MD 21218.** Telephone: 301-338-7107. *An Equal Opportunity Employer.*

**Gastroenterology. POSTDOCTORAL POSITION.** Available immediately to study the regulation of expression of the glutathione S-transferases in the liver. Strong background in molecular biology, genetics, or biochemistry desired. Research involves work with cultured hepatocytes and in vivo studies of hepatic regeneration. Send curriculum vitae and names of three references to: **Thomas D. Boyer, M.D., Department of Medicine, P.O. Box 23206, Atlanta, GA 30322.** *Emory University is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS.** Available July 1990 to study: (i) regulation of gap junctional communication through phosphorylation of junction protein by cellular kinases and pp60src, and (ii) the expression of oncogenes and tumor suppressor genes in human gastric and thyroid cancers. Candidates should have a Ph.D. degree and experience in molecular biology, particularly mutagenesis, PCR, expression vectors. Send curriculum vitae and three references with telephone numbers to: **Dr. Alan F. Lau, Cancer Research Center, 1236 Lualaba Street, Honolulu, HI 96813.**

### POSTDOCTORAL FELLOWSHIP

A postdoctoral position is available immediately to study mechanisms of free radical generation during cardiac surgery. Experience in the biochemistry and physiology of myocardial ischemia and reperfusion as well as analytical techniques (GC-MS, HPLC) is necessary. A background in ESR is welcome but not necessary. Please send your curriculum vitae and names of three references to: **Drs. B. Kalyanaraman/J. E. Baker, National Biomedical ESR Center, Medical College of Wisconsin, 8701 West Watertown Plank Road, Milwaukee, WI 53226.** *Equal Opportunity/Affirmative Action Employer, M/F/H.*

### MOLECULAR BIOLOGY AND BIOCHEMISTRY IN CARDIOVASCULAR DISEASE POSTDOCTORAL FELLOW POSITION

Postdoctoral fellow position available for Ph.D. and/or M.D. beginning 1 September 1990. The fellow will be a member of a scientifically exciting group with expertise in thrombosis, thrombolysis, and endothelial cell biology. Attractive compensation and surroundings. Research experience in molecular biology or biochemistry preferred. Specific topics have both clinical and industrial relevance. Please send curriculum vitae and references to: **Dr. Marshall Runge, M.D., Ph.D., P.O. Box LL, Atlanta, GA 30322.** *Emory University is an Equal Opportunity Employer.*

### RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW

Research associate/postdoctoral fellow needed to work on a multicenter national Alzheimer's disease clinical neuropathology research program. The work will include the isolation and characterization of normal and abnormal proteins from human brain tissue, as well as immunocytochemical and in situ hybridization studies. Experience with data collection and analysis is desirable. Send a copy of curriculum vitae and references to: **Dr. S. Mirra, Laboratory Services, Veterans Administration Medical Center, 1670 Clairmont Road, N.E., Decatur, GA 30033.** *Emory University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE.** Position available 1 July 1990 for 3 years to study the regulation of gene expression in leukemic cells. Ph.D. or M.D. degree required and experience in molecular biology preferred. Please send a letter of interest and curriculum vitae and names of three references with addresses and telephone numbers to: **Dr. George Atweh, SUNY-Brooklyn/VA Medical Center (111D), 800 Poly Place, Brooklyn, NY 11209.**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATE

Open immediately to study the neural and hormonal control of energy balance, especially the control of naturally occurring changes in adipose tissue as affected by the photoperiod. Multidisciplinary approach to site-specific changes in adipocyte cell function. Experience with some of the following techniques desirable: isolated fat cell metabolism, adipose tissue cellularity, in vivo microdialysis, adrenergic receptor assay, HPLC with EC detection for NE turnover study. Two to five years possible. Send curriculum vitae and names of three references to: **Dr. Timothy J. Bartness, Departments of Psychology and Biology, Georgia State University, Atlanta, GA 30303** by 16 July 1990. *Georgia State University, a unit of the University System of Georgia, is an Equal Opportunity Educational Institution and an Equal Opportunity/Affirmative Action Employer (06357).*

### COLUMBIA UNIVERSITY POSTDOCTORAL RESEARCH ASSOCIATE

A position is available to study the structure and function of HIV-1 genome. Emphasis on the mechanism of action and genetic determinants of low-cytopathic HIV-1 isolate and its effects on cellular gene expression and cell functions. Candidates should have a Ph.D. or equivalent and a strong background in virology and molecular biology. Applicants should submit curriculum vitae with a list of publications, a statement of research interests, and names of three references to: **Dr. D. J. Volsky, Molecular Virology Laboratory, College of Physicians and Surgeons, St. Luke's/Roosevelt Hospital Center, 432 West 58th Street, New York, NY 10019.**

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### POSTDOCTORAL RESEARCH ASSOCIATE/ RESEARCH FACULTY POSITION

Position available in ongoing project examining the pathogenesis of neurologic disease in transgenic models. Candidates should have an M.D. or Ph.D. degree and two or more years of experience in the expression of hybrid genes in the CNS of transgenic mice. Extensive experience is required in the molecular and histologic analysis of nervous tissue. Practical experience with murine LCMV infections is also necessary. Salary: \$40,000. Applications should include curriculum vitae, list of publications, summary of research activities, and three letters of references. Applications should be addressed to: **Dr. Michael B. A. Oldstone, Department of Neuropharmacology, Scripps Clinic and Research Foundation, 10666 North Torrey Pines Road, La Jolla, CA 92037. Attention: L. Quinsaat—IMM2.**

**RESEARCH ASSOCIATESHIP** on catalytic antibodies using protein chemistry, enzymology, and recombinant DNA methods. Ph.D. in biochemistry, immunology, or related discipline. Excellent facilities, interactive environment, and competitive salary. Send curriculum vitae and telephone numbers of three references to: **Sudhir Paul, Ph.D., Departments of Pharmacology and Biochemistry, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6960.** *The University of Nebraska is an Affirmative Action/Equal Opportunity Employer.*

**SENIOR RESEARCH ASSOCIATE.** The University of Georgia Complex Carbohydrate Research Center requires a carbohydrate chemist/biochemist to undertake research in the isolation, purification, and complete structural characterization of complex carbohydrates from plant cell walls and microorganisms using chemical/enzymatic techniques in combination with HPLC, GLC, GLC-MS, and NMR spectroscopy; train graduate students/postdoctoral fellows to use HPLC and GLC-MS equipment; and assist in the writing of grants and scientific manuscripts. Requirements: M.S. or equivalent with minimum of 6 years of research experience in the application of chemical/enzymatic procedures for the depolymerization of complex carbohydrates and in the use of HPLC, GLC, GLC-MS, and NMR spectroscopy for the isolation and structural characterization of complex carbohydrates and their derivatives. Good publication record required. Salary: \$35,000 per year; 40 hours per week. Review of applications will begin on 1 August 1990. All qualified applicants should submit résumé to: **Professor Alan G. Darvill, Complex Carbohydrate Research Center, The University of Georgia, 220 Riverbend Road, Athens, GA 30602.** *An Affirmative Action/Equal Opportunity Employer.*

22 JUNE 1990

## POSITIONS OPEN

**RESEARCH ASSOCIATE.** To study the interaction of inter-leukins and of the hypothalamic-pituitary-adrenal-axis on intermediary metabolism. Experience in small animal surgery, RIA, ELISA, and HPLC. Knowledge of tissue culture helpful. Joint appointment at Shriners Burns Institute, Massachusetts General Hospital, and Harvard Medical School. Send résumé to: **Lynne L. Levitsky, M.D., 51 Blossom Street, Boston, MA 02114.** *Equal Opportunity Employer.*

### U.S. DEPARTMENT OF AGRICULTURE (USDA)

#### AGRICULTURAL RESEARCH SERVICE (ARS)

**POSTDOCTORAL RESEARCH ASSOCIATE (MOLECULAR BIOLOGIST OR IMMUNOLOGIST)** immediately available with the Helminthic Diseases Laboratory, Beltsville, Maryland. Research objectives include the construction of DNA probes for cattle parasites and the analysis of the induction of cytokine secretion by bovine T cell clones. Ph.D. required. Salary is commensurate with experience (\$29,891 to \$35,825 per annum). Send applications (SF-171) and copy of curriculum vitae to: **Dr. Louis Gasbarre, USDA, ARS, HDL, Building 1040, BARC-East, Beltsville, MD 20705,** or telephone: 301-344-2509. Applications should be marked **0E007.** *An Equal Opportunity Employer.*

#### POSTDOCTORAL/RESEARCH SCIENTISTS.

Columbia University. Qualified applicants will be recruited for undertaking studies on the mechanisms of action of the seminiferous growth factor (SGF) in determining gonadal sex, promoting development of the male reproductive system, and stimulating the proliferation and differentiation of germ cells. Candidate must have an M.D. or Ph.D. and two or more years of postdoctoral experience in cellular and molecular biology of growth factors. Salary: approximately \$25,000. Send curriculum vitae and the names of three referees to: **Dr. Anthony R. Bellvé, Department of Anatomy and Cell Biology, College of Physicians and Surgeons, Columbia University, 650 West 168th Street, New York, NY 10032.**

#### POSTDOCTORAL RESEARCH IN AUTOIMMUNITY AND CANCER IMMUNOBIOLOGY.

Opportunity in a multidisciplinary immunology program for integrated studies of immune responses to ligand-gated and voltage-gated cation channels, antigenicity of neurotransmitter receptors and ionic channel proteins in tumor cells, anti-synaptic autoimmunity as a manifestation of tumor immunity, and experimental therapy of autoimmunity and lung and ovarian cancer. Ph.D. or M.D. Strong background in biochemistry/molecular biology an asset. Competitive salary. Please send statement of interests, curriculum vitae, and name, addresses, and telephone numbers of three references to: **Vanda A. Lennon, M.D., Ph.D., Department of Immunology, Mayo Clinic, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Employer.*

#### RESEARCH INSTRUCTOR OF ANATOMY.

Nontenure-track position available for research in developmental neurobiology, and teaching in medical gross and developmental anatomy. Candidates must have a Ph.D. in anatomy or neuroscience and at least 2 years of experience teaching gross anatomy (laboratory and lectures) to professional students. Research involves lineage analysis of neurotransmitter development in amphibia, and skills must include intracellular delivery of dyes to embryonic cells, immunohistochemistry on developing brain, embryonic microsurgery, and electron microscopy. Position available 1 September 1990; deadline for applications is 15 July 1990. Send curriculum vitae and the names and addresses of three references to: **Dr. Sally Moody, Department of Anatomy, Box 439 Medical Center, University of Virginia, Charlottesville, VA 22908.**

#### STAFF SCIENTIST FRED HUTCHINSON CANCER RESEARCH CENTER

Position available for a Ph.D. biochemist to help direct ischemic/toxic renal tubular cell injury laboratory. Minimum of 2 years of experience, preferably in membrane/cytoskeletal research experience desired. Please respond by express mail or FAX to: **Fred Hutchinson Cancer Research Center, 1124 Columbia Street (ad# HN-1751), Seattle, WA 98104.** FAX: 206-224-4051. *Smoke-free environment. Affirmative Action/Equal Opportunity Employer, M/F/H.*

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## CHAIRPERSON

### Department of Microbiology and Immunology

The Pennsylvania State University College of Medicine is seeking a chairperson in Microbiology and Immunology to succeed Dr. Fred Rapp who is retiring from the position effective June 30, 1990, after serving as Chairman of the Department for twenty-one years. The Department has a tradition of excellence in research and teaching. The faculty of the Department excels in their individual fields of research and their endeavors are currently well supported by extramural grants and contracts. The Department offers courses covering various aspects of microbiology, immunology, and molecular biology for medical and graduate students. The faculty participates in a departmental graduate program, as well as, three interdepartmental graduate programs and a college of medicine M.D./Ph.D. program. The department offers unique opportunities for growth and development in a rapidly expanding academic medical center. The candidate should be nationally and internationally recognized with an outstanding reputation as an investigator in an area of research relevant to microbiology and immunology. The candidate should also have proven leadership skills and should be experienced in teaching and administration.

The deadline for applications is September 30, 1990.

Applications or nominations should be addressed to:

Leonard S. Jefferson, Ph.D.  
Chairman, Microbiology and  
Immunology Search Committee  
The Pennsylvania State University  
College of Medicine,  
P.O. Box 850, Drawer SC  
Hershey, PA 17033

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## POSITIONS OPEN

### PROFESSIONAL RESEARCH POSITION UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Psychobiology invites applications for the position of **ASSISTANT RESEARCH PSYCHOLOGIST**. The ideal candidate will have a doctoral degree, some postdoctoral experience, and skills in some or all of the following areas: hybridoma technology, cell culture, protein purification, immunohistochemical procedures, electrophysiology, and experience with the *Xenopus* oocyte expression system. Send curriculum vitae and names, addresses, and phone numbers of at least two references to: **Ricardo Milei, Distinguished Professor, Department of Psychobiology, University of California, Irvine, CA 92717**. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

### GROUP LEADER FOR BASIC RESEARCH CRYOPHARM CORPORATION

Cryopharm Corporation seeks a Ph.D. level scientist to direct a basic research group dedicated to advancing the company's proprietary technology for lyophilization and reconstitution of human red blood cells and blood products. This core technology will address crucial blood banking needs for blood storage, transport, and use in transfusion medicine. The successful candidate will have a demonstrated record of innovative research and have a background in cellular physiology and biochemistry. Hands-on experience with human/mammalian blood cells, cryobiology or cryopreservation, and animal circulation models highly desirable. Applicants must have demonstrated project leadership skills and have an ability to coordinate projects with other research groups. This position will report to the Director of Research and Development. Cryopharm is well financed and is starting clinical trials. Cryopharm offers a stimulating entrepreneurial environment with a competitive compensation package including equity participation. Cryopharm is located in Pasadena, California, near Caltech. Applicants should send curriculum vitae or résumé with the names of two professional references to: **Christine Gray, Cryopharm Corporation, 2585 Nina Street, Pasadena, CA 91107**.

**RESEARCH SCIENTIST** with Ph.D. in immunology and strong background in microbiology to head up program in Pediatric Otolaryngology Immunobiologic Research at Children's Hospital of Buffalo. Experience required at postdoctoral level. Salary competitive. Send curriculum vitae to: **Linda Brodsky, M.D., Department of Otolaryngology, Children's Hospital of Buffalo, 219 Bryant Street, Buffalo, NY 14222**.

**SCIENTIST**. Meridian Diagnostics, Inc., has an opening in its research and development department for a scientist. This position will assist in design, development, and execution of research projects. Must be capable of supervising one research associate and working independently. Requires a Ph.D. in biochemistry, immunology, microbiology, or related field. Up to 2 years of industrial research and development experience helpful. Familiarity with protein separation and purification or immunoassay beneficial. For consideration, please send résumé to: **Meridian Diagnostics, Inc., Human Resources, 3471 River Hills Drive, Cincinnati, OH 45237**. *An Equal Opportunity Employer.*

**SENIOR STAFF ENGINEER/SCIENTIST**. Responsible for the development of products utilized in land surveys, navigation, civil engineering and geodetic positioning applications, employing measurements obtained from GPS satellite systems. Must possess knowledge and experience with: NAVSTAR Global Positioning System (GPS) satellite for high accuracy, geodetic positioning applications and post-processing analysis of recorded GPS satellite signal measurements; development and use of TRANSIT Satellite-Doppler surveying system; Fortran and C computer software languages on IBM PC platforms; WM, PoPS GPS post-processing software systems; implementation of PC-based data base management systems for storage and organization of geodetic and engineering survey data. Must have Ph.D. or equivalent in geodetic sciences, 3 years in position offered or 3 years as senior scientist/geodetic. Salary: \$5512 per month. Forty hours per week. Job site and interviews: Torrance, California. Send ad and résumé, no later than 7 July 1990, to: **MLU #15859, P.O. Box 9560, Sacramento, CA 95823-0560**.

## POSITIONS OPEN

**ASSISTANT MATERIALS SCIENTIST**. Ph.D. in Materials Science or Physics. Graduate research should include studies of superconductors with emphasis on preparation, microstructure, and critical current-critical field measurements. Individual will carry out research efforts to develop practical conductors from oxide superconducting materials. Activities will include experimental instrumentation, sensitive critical current measurements, microstructural analysis, materials preparation, and development of strategies to obtain better practical materials. Salary: \$3750 per month; 40 hours per week, 8:30 a.m. to 5:00 p.m. Send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605**. Attention: **Connie M. Evans, Reference #9687-E**. *An employer-paid ad.*

### RESEARCH CHEMIST

The Biochemistry Section, Division of Respiratory Disease Studies, National Institute of Occupational Safety and Health (NIOSH), in Morgantown, West Virginia, is seeking a scientist with training in biological or biochemical sciences and experience in cell isolation techniques, identification of cellular mediators, respiratory toxicology, inhalation toxicology, and/or inflammatory lung disease. A Ph.D. is required with postdoctoral experience desirable. The incumbent will conduct research related to occupational respiratory disease in a modern, well-equipped, and funded laboratory. Collaboration and an adjunct faculty appointment with West Virginia University, located adjacent to NIOSH, are encouraged. Salary starting is \$36,000. Interested candidates should send inquiries, curriculum vitae, and references to: **William S. Latham, Chief, NIOSH Personnel Office, MS C-6, 4676 Columbia Parkway, Cincinnati, OH 45226**. Applications must be submitted within 30 days of this announcement. *NIOSH is an Equal Opportunity Employer and maintains a smoke-free work environment.*

### SUPERVISORY PHARMACOLOGIST OR RESEARCH CHEMIST, GM-14

Supervisory Pharmacologist or Research Chemist, GM-14, to serve as chief of the Pharmacodynamics Team, Biochemical Pharmacology Branch, U.S. Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, Maryland. Responsible for supervising and managing fundamental research on mechanisms of action of toxic agents, and the development of concepts of prophylaxis and therapy. Qualified applicants must have established expertise in pharmacokinetic modeling, neurotransmitter pharmacology, enzyme kinetics, toxicokinetics, or molecular biology, as indicated through peer-reviewed publications. Demonstrated ability to effectively manage and supervise research in the above areas is highly desirable. Salary range \$50,342 to \$65,444 per annum. Position requires bachelor's degree (or higher) and appropriate professional experience in chemistry or pharmacology. Ph.D. desired. U.S. citizenship is required and the applicant must be able to obtain a security clearance. Résumés must be received by 31 July 1990 and sent to: **Commander, U.S. Army Aberdeen Proving Ground Support Activity, Attention: STEAP-CP-RT (Ms. C. Davis), Aberdeen Proving Ground, MD 21005-5001**. *Equal Opportunity Employer.*

**WATER ANALYSIS CHEMIST**. Forty hours per week, overtime not available, 9 a.m. to 5 p.m.; \$2815 per month, overtime not available. Duties: Evaluates chemical contaminants in portable drinking water; develops testing methods and conducts analysis on chemical additives which directly or indirectly come in contact with water, including: organic and inorganic analysis, titration, gravimetric testing, physical determinations, photometric analysis, environmental gas emission, microbiological growth, plus computation and theoretical chemical composition analysis. Required Ph.D. in chemistry (analytical), 1 year of experience in job offered or 1 year of experience in related occupation as research associate (analytical chemistry). Other special requirements: (i) research experience in trace metal analysis by the hydride-atomic absorption as evidenced by published work in a research journal, (ii) 1 year of experience in analytical method development and evaluation of analytical methods for trace metal analysis, and (iii) working experience with EPA protocols as evidenced by preparing EPA reports on research projects. Applicants send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605**. Attention: **L. Donegan, reference #1472-D**. *An employer-paid ad.*

## POSITIONS OPEN

### GIS/REMOTE SENSING/MONITORING

The University of Georgia Marine Institute on Sapelo Island has an opening for a **RESEARCH TECHNICIAN** to be responsible for data acquisition from its Geographical Information System (GIS) and its atmospheric and hydrologic monitoring stations. The successful applicant will be charged with calibrations, maintenance, computer interfacing, and quality control. Familiarity with GIS, IBM compatible microcomputers, and/or Hydrolab and Campbell datalogging systems is desirable. This full-time position is currently funded for 2 years, with extensions expected. Send résumé and names of two references to: **Dr. Alice G. Chalmers, University of Georgia Marine Institute, Sapelo Island, GA 31327**. Telephone: 912-485-2201. *The University of Georgia is an Equal Opportunity/Affirmative Action Employer.*

## MEETINGS

### ADVANCES IN CHEMOTHERAPY OF AIDS-II 13-14 September 1990

Symposium on recent advances in basic research on development of novel drugs and pharmacologic approaches against AIDS. Details and application forms: **Department of Pharmacology, University of Alabama at Birmingham, University Station Box 600, Birmingham, AL 35294**. Telephone: 205-934-4578 or 205-934-4584. FAX: 205-934-8240.

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## Nominations for the 1991 Helmut Horten Research Award

In autumn 1991, the Helmut Horten Foundation will, for the first time, award a scientist, or a group of scientists working on a common project, the Helmut Horten Research Award amounting to SFR 1,0 million (approximately US\$ 700.000.-). This amount includes a sum to be given to the laureate for his discretionary use together with funds destined to support of his or her research in the field of basic, clinical or applied sciences. The award will be granted bi-annually on a world-wide basis.

The award intends to honor achievements and to encourage further research in the field of medicine or biology of benefit to human health. Such achievements could include seminal scientific contributions to the basic biomedical sciences, epidemiology, parasitology, or to disease eradication efforts.

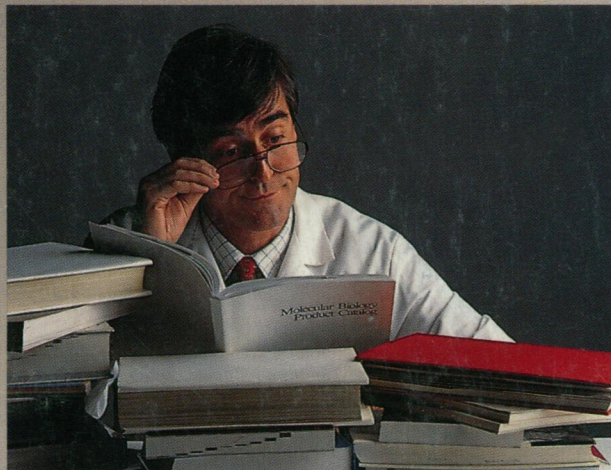
The award-winner will be selected by a committee composed of internationally prominent scientists.

Readers are invited to assist in nominating candidates for the Helmut Horten Research Award. The following should be noted:

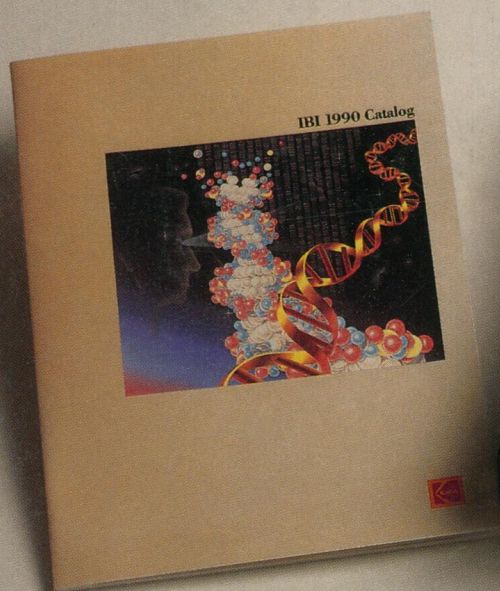
1. Nominees should be proposed by scientists, physicians and institutions having detailed knowledge of the candidates' research.
2. Nominations submitted by candidates themselves cannot be considered.
3. Nominations must be made on an official form obtainable, together with further information, from:  
The secretary of the Selection Committee  
Foundation Helmut Horten  
CH-6995 Madonna del Piano  
Switzerland
4. The deadline for nominations is November 15, 1990.



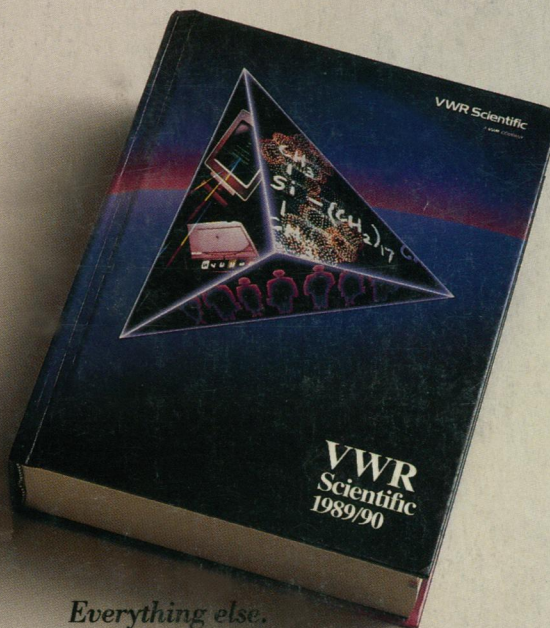
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