

### **Microcentrifuge Filtration Devices**

Z-Spin microcentrifuge filtration devices from Gelman Sciences are designed for filtration of small volumes of aqueous solutions. There is minimal sample loss because of the device's low protein binding microporous membrane. The Z-Spin is designed for clarification, particulate removal, and sterilization of aqueous solutions in tissue culture, high-performance liquid chromatography, and electrophoresis applications. The Z-Spin can filter samples up to 400  $\mu$ l and has a hold-up volume (with air purge) of less than 10  $\mu$ l. They are available sterile and non-sterile in 0.2 and 0.45  $\mu$ m pore sizes. Gelman Sciences. Circle 343.

### **Chromatographic Simulation Software**

DryLab GC is a software program that allows chromatographers to simulate gas chromatographic separations on the computer for rapid method development. Following the entry of retention time data from



two experimental runs, the user can examine the effects of temperature changes on resolution by viewing simulated chromatograms. Chromatograms for isothermal, linear, and multiramp temperature programs are gener-

ated in seconds. Method development time is reduced by replacing large numbers of laboratory runs with computer-simulated separations. DryLab GC can also be used to determine method ruggedness and to examine the effects of changes in columns and other hardware on the separation. DryLab programs run on IBM-compatible computers. A demonstration disk is available. LC Resources. Circle 344.

### **Fiberglass Tissue Culture Enclosure**

The Fiberglass Tissue Culture Enclosure is a non-ventilated, circulation-free work area designed to reduce cross-contamination in techniques such as tissue staining, culture growth, virus harvesting, or preparing polymerase chain reaction mixtures for DNA testing. The enclosure has a molded one-piece fiberglass reinforced polyester interior that is smooth and crevice-free with coved corners. The liner is corrosion resistant, durable, fire resistant, and light reflective. Labconco. Circle 345.

### **Monoclonal Antibodies**

A monoclonal antibody (MAb) to mouse macrophage M1/70 is available in unconjugated form and labeled to fluorescein isothiocyanate (FITC) and *R. phycoerythrin*. M1/70 recognizes a differentiation antigen on mononuclear phagocytes and granulocytes. Serotec. Circle 346.

Two new MAbs, 34BE12 and 35 $\beta$ H11, are for use in distinguishing various types of carcinomas. Dako. Circle 347.

An anti-atrial natriuretic peptide (ANP) MAb is specific for 1-24 ANP and also binds to the 4-24 peptide region. The MAb is suitable for use in sandwich assays and radioimmunoassays. Cymbus Bioscience. Circle 348.

A range of ten MAbs can identify leukocyte differentiation markers for the study of the immune system in rhesus monkeys. Cymbus Bioscience. Circle 349.

### **Tissue Slicer**

The Krumdieck Tissue Slicer is an automated, sterilizable microtome for rapid preparation of aseptic slices of live tissues for organ culture. The instrument eliminates a major source of error in tissue slice work, namely, the use of slices of different and uneven thicknesses with irregular, non-reproducible damage at the cut surfaces. Slices can be prepared from approximately



60 micron thickness and up by an inexperienced operator at a maximum rate of one slice every 3 to 4 seconds. Alabama Research and Development Corp. Circle 350.

### **Semi-Dry Electroblotters**

The Panther Semi-Dry Electroblotter Model HEP-1 is designed for rapid protein transfers, and can also be used to transfer nucleic acids. Transfers are achieved in a maximum run time of 2 hours. The HEP-1 is constructed of heavy-duty acrylic. The transfer area is 20 cm by 20 cm. Owl Scientific Plastics. Circle 351.

### **Literature**

*Bio Image Electrophoresis Analyzers* describes a complete line of analyzers that can scan and interpret data from DNA sequencing procedures, two-dimensional electrophoresis, and restriction fragment length polymorphism studies. Each analyzer consists of a high resolution scanner, a Sun computer, and an application-oriented software program. Millipore. Circle 352.

The 18th edition of the *ATCC Catalogue of Filamentous Fungi* lists more than 19,000 fungal strains available. American Type Culture Collection. Circle 353.

*Monomer Products Description and Applications Guide* is an eight-page booklet highlighting more than 50 products. Rohm Tech. Circle 354.

*The Astronomical Society Catalog 1992* is a 48-page listing of slides and videos, software and laser discs, posters and charts, and observing tools. Astronomical Society of the Pacific. Circle 355.

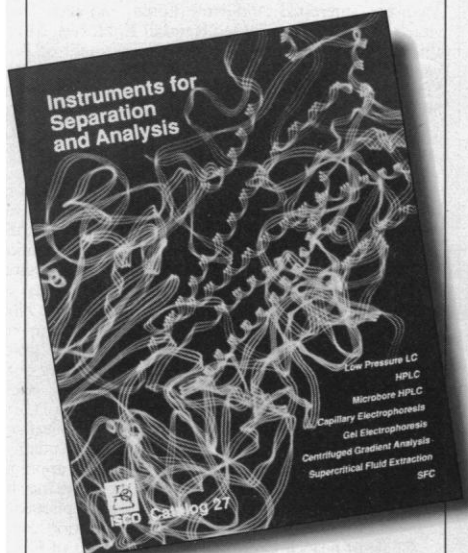
*OmniPac 100 and 500 Column Series* is a 20-page brochure on a line of ion exchange and multimode polymeric high performance liquid chromatography columns. Dionex. Circle 356.

*Software for Complex Scientific and Engineering Problem Solving, Fall 1991 Catalog* contains 16 pages of product information. MicroMath Scientific Software. Circle 357.

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

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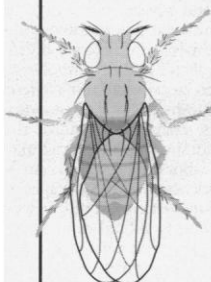
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## POSITIONS OPEN

### ASSISTANT PROFESSOR OF AGRICULTURAL ENTOMOLOGY

The Department of Entomology, University of Missouri, invites applications for this nontenure-track position at the Delta Center, Portageville, Missouri to develop a research program (50% effort) to complement an extension program (50% effort) on management of pest arthropods associated with crops grown in southeast Missouri. Ph.D. in entomology, training and experience in applied entomology, a broadly based knowledge of cropping systems appropriate for IPM responsibilities in the region, and effective communication skills are required. Submit by 1 February 1992 a letter describing qualifications and goals; résumé; transcripts; reprints; and request three letters of reference, all to be sent to: C. O. Knowles, Chair Search Committee, Department of Entomology, 1-87 Agriculture Building, University of Missouri, Columbia, MO 65211. Telephone: 314-882-2346. *The University of Missouri is an Affirmative Action/Equal Opportunity Employer.*

**SCIENCE EDUCATION.** Departments of Biology and Education seek applicants for **ASSISTANT PROFESSOR**, tenure track, to supervise student teachers in secondary science (primarily biology and integrated science), teach curriculum and methods in science, introductory biology, and core courses in an Environmental Education Masters Program, and develop outreach program for staff development in public schools. Requirements include doctoral degree and 3 years of pre-college teaching. Southern Oregon State College is a 4-year institution with programs in liberal arts and sciences and selected professional fields. Position is contingent on funding. Send curriculum vitae and selected reprints, letter describing teaching experience and participation in professional outreach, staff development, and science education, three letters of recommendation, and list of course work or transcripts by 1 February 1992 to: Dr. D. Southworth, School of Sciences, Southern Oregon State College, Ashland, OR 97520. *The college is an Affirmative Action, Equal Opportunity Employer; minorities and women are especially encouraged to apply.*

### ECOLOGIST

Tenure-track position available at the **ASSISTANT PROFESSOR** rank beginning September 1992. (Higher rank may be considered.) Responsibilities include teaching ecology for majors, and nonmajor courses such as field ecology, aquatic animals and environmental biology, and establishing a research program involving undergraduates. Ph.D. in community or ecosystem ecology required. Candidates must provide evidence of teaching and research effectiveness. *Minorities and women are especially encouraged to apply.* Send letter of application, curriculum vitae, transcripts, statement of long-term goals, and three letters of recommendation to: Dr. Susan L. Neuhausen, Search Committee Chairperson, Department of Biology, Slippery Rock University, Slippery Rock, PA 16057. To ensure consideration, application materials should be received by 15 February 1992. *Slippery Rock University is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR OF IMMUNOLOGY CARDIOVASCULAR RESEARCH LABORATORY

The Cardiovascular Research Laboratory of the Harvard School of Public Health is searching for an assistant professor with expertise and several years of research experience in protein chemistry and immunology. Priority will be given to individuals with a record of investigation in the area of thrombosis and thrombolysis. The successful candidate will also be expected to have research experience in the area of immunological dissection of epitopes of proteins of the coagulation and/or thrombolytic systems. Responsibilities include teaching and independent as well as collaborative research. An M.D. degree, fellowship and residency in a relevant specialty is required because of anticipated extension of this work to clinical investigation. Applicants should send their curriculum vitae and names of three references to: Dr. Edgar Haber, Division of Biological Sciences, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115.

*Harvard University is committed to increasing the representation of women and minority members among its faculty and particularly encourages applications from such candidates.*

## POSITIONS OPEN

Term faculty appointments at the **ASSISTANT PROFESSOR** level for Ph.D./M.D. in biochemistry, molecular biology, and/or cell biology. The successful candidates will conduct research in environmental carcinogenesis, chemoprevention, and/or molecular epidemiology of cancer, and will be expected to compete successfully for peer reviewed grants as a part of the cancer program of The Ohio State University Comprehensive Cancer Center. Successful candidates will also participate actively in the graduate program of the Department of Preventive Medicine of the College of Medicine. Interested candidates should send curriculum vitae and three references to: Randall E. Harris, M.D., Ph.D., Professor and Chairman, Department of Preventive Medicine, The Ohio State University, B-107 Starling Loving Hall, 320 West 10th Avenue, Columbus, OH 43210. *An Equal Opportunity Employer.*

### FACULTY POSITION IN KINESIOLOGY

The Department of Kinesiology at the University of Illinois at Urbana-Champaign invites applications for two tenure-track positions with emphasis at the **ASSISTANT PROFESSOR LEVEL**. (1) Biomechanics. (2) Physiological and/or biochemical aspects of movement and exercise; scholarly interests in such areas as muscle metabolism, endocrinology, and molecular biology. The research functions include independent research, directing student research and seeking grant support. Instruction involves teaching and advising both undergraduate and graduate students. Academic background and training relevant to each area. Ph.D. required. To assure full consideration, letter of application, curriculum vitae and three letters of recommendation should be submitted by 1 February 1992. The appointment will be effective 21 August 1992. Interviews may be conducted before the closing date, but all applications received by that date will receive full consideration. Send to: Chair of Search Committee, Department of Kinesiology, University of Illinois at Urbana-Champaign, Louise Freer Hall, 906 South Goodwin Avenue, Urbana, IL 61801; telephone: 217-244-0823. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

### FACULTY POSITION

The Institute of Molecular Biology and the Department of Biology at the University of Oregon have an open tenure-track position at the **ASSISTANT PROFESSOR** level in the area of genetics and molecular biology. We are particularly interested in individuals studying fundamental problems in developmental biology or genetics, but will consider outstanding applicants in other areas. The successful candidate will be expected to conduct a vigorous research program, preferably complementing our existing programs, and must be committed to excellence in teaching at the undergraduate and graduate levels. The appointment can start as early as fall 1992. Applications should include curriculum vitae, a statement of research interest/plans and three letters of recommendation, and should be sent before 1 February 1992 to: Molecular Biology Search, Department of Biology, University of Oregon, Eugene, OR 97403. The University of Oregon concurrently has openings for a **NEUROBIOLOGIST** (contact Neuroscience Search, Department of Biology), a **BIOPHYSICIST** (contact Biophysics Search, Institute of Molecular Biology) and a **BIOCHEMIST** (contact Biochemistry Search, Department of Chemistry). *The University of Oregon is an Equal Opportunity/Affirmative Action Employer committed to cultural diversity.*

### FACULTY POSITION

The Microbiology Department of The University of Texas at Austin has an opening for an **ASSISTANT PROFESSOR** in the area of immunology. Appointment at a higher rank will be considered for individuals with an outstanding record of independent research. Highly qualified individuals with interests in molecular biology outside of this area also will be considered. This is an outstanding opportunity to join an excellent department during a period of expansion. Please submit curriculum vitae, including names and addresses of three references and a summary of research interests to: Microbiology Department Search Committee, The University of Texas at Austin, Austin, TX 78712-1095. *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

The Department of Biology, Brooklyn College/CUNY, invites applications for a tenure-track position at the ASSISTANT PROFESSOR level beginning September 1992. We seek a scientist who uses modern methods of molecular biology or immunology to investigate problems in cell biology, developmental biology, or neurobiology in a model eukaryotic organism. Applicants must have a Ph.D. degree, at least 2 years of postdoctoral training, and publications. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. The position is funded by a grant from the Howard Hughes Medical Institute Undergraduate Biological Sciences Education Initiative. Submit curriculum vitae, a brief description of research interests, and names and addresses of three references by 1 March 1992 to: **Dr. R. H. Gavin, Chairman, Department of Biology, Brooklyn College/CUNY, Brooklyn, NY 11210.** An Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V.

### MOLECULAR RETROVIROLOGIST EMPHASIS HIV UNIVERSITY OF WASHINGTON

The Department of Microbiology is seeking candidates for a TENURE-TRACK FACULTY POSITION preferably at the ASSISTANT PROFESSOR level to complement an ongoing interdepartmental multidisciplinary research program on Human Immunodeficiency Virus (HIV), Simian Immunodeficiency Virus (SIV), and other retroviruses. The resources of a regional primate center adjacent to the department are available, and opportunities exist for extensive collaboration in clinical and epidemiological investigations on patients with HIV.

Applicants will be expected to develop a successful and independent research program using molecular and genetic approaches to study HIV. Teaching responsibilities include involvement in undergraduate and graduate courses as well as supervision of graduate students. Applicants should send their curriculum vitae, a short statement of current research interests, and the names of three references by 15 February 1991 to:

**Virology Search Committee  
c/o Dr. Eugene Nester  
Department of Microbiology, SC-42  
University of Washington  
Seattle, WA 98195**

*The University of Washington is an Equal Opportunity/Affirmative Action Employer, and we are especially eager to identify qualified women and minority applicants.*

**NEUROPATHOLOGIST** University of California, San Francisco (UCSF), (tenured). We are looking for an ASSISTANT PROFESSOR level person who is Board-certified or Board-eligible in neuropathology and has a major commitment to research in an area which would foster interaction with the Neuroscience Faculty. Maximum clinical responsibility 15–20% since obligations are shared with three other neuropathologists. We are willing to give an individual with the appropriate research profile but little clinical experience the time to gain the necessary diagnostic skills under direction. Position available July of 1992 or 1993. UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities encouraged to apply. Please direct curriculum vitae to:

**Dr. Stephen DeArmond, telephone: 415-476-5236  
Chairman, Neuropathology Search Committee  
University of California  
San Francisco, CA 94143-0506**

**RESEARCH ASSISTANT PROFESSOR**, Clinical and animal neurological disease research (Multiple Sclerosis, Subacute Sclerosing Panencephalitis, and Experimental Allergic Encephalomyelitis) plus teach medical students and neurological fellows. Requires: Ph.D. (neurology or immunology) or M.D. and neurology residency; 1 year clinical neurology fellow; 8 years teaching neurology medical students and neurology fellows; 10 years of research including Multiple Sclerosis and Subacute Sclerosing Panencephalitis, humans, and Experimental Allergic Encephalomyelitis, animals; 3 years of direct experience in T cell clonal isolation and clinical models; ten research papers published in peer-reviewed journals, at least five as primary author. Recruit period 30 days. Send curriculum vitae to: **Dr. Halina Offner/Arthur Vandenbark, Department of Neurology L226, Oregon Health Sciences University, Portland, OR 97201-3098.** An Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

The Department of Chemistry and Biochemistry at Concordia University, Montreal, has an opening for a biochemist at the ASSISTANT PROFESSOR level (tenure track). We will consider candidates in any area of modern biochemistry, cell biology or molecular biology. The successful candidate will be required to establish a research program that will attract external funding and to teach biochemistry or cell biology at both the undergraduate and graduate levels. This individual will join a group of faculty, drawn from both the Department of Chemistry and Biochemistry and the Department of Biology, who have active research programs and are jointly involved in offering undergraduate programs in biochemistry and cell and molecular biology. Concordia is a predominantly English-speaking university located in downtown Montreal, in proximity to three other universities, several pharmaceutical companies and the NRC Biotechnology Research Institute. All qualified individuals are encouraged to apply, but, in accordance with Canadian immigration requirements, this advertisement is directed primarily to citizens and permanent residents of Canada. Applicants should send a résumé and an outline of proposed research and should arrange for three letters of reference to be sent directly to:

**Dr. Judith Kornblatt, Director  
Joint Committee for Biochemistry  
and Molecular Biology  
Department of Chemistry and Biochemistry  
Concordia University  
1455 de Maisonneuve Boulevard, West  
Montreal, Quebec, H3G 1M8 Canada**

*Concordia University is committed to Employment Equity, and encourages applications from women, aboriginal peoples, visible minorities and disabled persons. All things being equal, women candidates shall be given priority.*

**Baylor University, ORGANIC CHEMISTRY FACULTY POSITION.** The Department of Chemistry invites applications for a tenure-track organic faculty position at the ASSISTANT PROFESSOR level, beginning fall 1992. A Ph.D. in chemistry is required and postdoctoral experience is desirable. The successful applicant will be expected to demonstrate excellence in teaching at the undergraduate and graduate levels and to establish an independent research program capable of attracting graduate students (M.S. and Ph.D.) and extramural funding. Applicants should submit a letter of application, curriculum vitae, including a list of publications, and a description of research interests and plans, and have three letters of recommendation and graduate and undergraduate transcripts sent to: **Professor Stephen L. Gipson, Department of Chemistry, P.O. Box 97348, Baylor University, Waco, TX 76798.** The deadline for receipt of all materials is 10 February 1992. Baylor University is governed by an all-Baptist Board of Regents and is operated within the Christian-oriented aims and ideals of Baptists. An Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

### PERINATOLOGIST (OB/GYN) ASSISTANT PROFESSOR

Position available immediately for an ASSISTANT PROFESSOR to join a faculty of five perinatologists in the Division of Maternal-Fetal Medicine to:

- 1) Teach medical students, residents in obstetrics and gynecology and fellows in high-risk obstetrics (maternal-fetal medicine).
- 2) Perform research in high-risk obstetrics to reduce premature births, infant complications, and death.
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Requirements:

- 1) M.D. degree and 4-year obstetrics and gynecology residency.
- 2) Board eligibility or certification in maternal-fetal medicine.
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Salary: \$78,000.00 per year and full fringe benefits. The employer is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.

Send résumé to:

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## POSITIONS OPEN

### ASSISTANT PROFESSOR OF MOLECULAR BIOLOGY CARDIOVASCULAR RESEARCH LABORATORY

The Cardiovascular Research Laboratory of the Harvard School of Public Health is searching for an assistant professor with expertise and several years of research experience in molecular biology. Priority will be given to individuals with a record of investigation in the areas of identification and cloning genes relevant to vascular function and the control of gene expression in blood vessels in response to various forms of injury. Responsibilities include teaching and independent as well as collaborative research. An M.D. degree, fellowship and residency in a relevant specialty is required because of anticipated extension of this work to clinical investigation. Applicants should send their curriculum vitae and names of three references to: **Dr. Edgar Haber, Division of Biological Sciences, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115.**

*Harvard University is committed to increasing the representation of women and minority members among its faculty and particularly encourages applications from such candidates.*

### ASSISTANT PROFESSOR OF PHARMACOLOGY PHARMACAL SCIENCES SCHOOL OF PHARMACY, AUBURN UNIVERSITY

Applications and nominations are invited for a 12-month, tenure-track faculty position at the rank of ASSISTANT PROFESSOR. Preference will be given to individuals with research interests in neuroscience or neuropharmacology. Persons interested in substance abuse research are particularly encouraged to apply. Applicants must have a Ph.D. and postdoctoral experience. The successful candidate will be expected to establish an independent extramurally funded research program and to participate in the teaching of graduate and pharmacy students. The position will be available 1 September 1992 and review of applications will begin in March 1992. Send curriculum vitae, a summary of present and future research plans, and the names of three references to: **Dr. Donald E. Walters, Chairman, Search Committee, Department of Pharmacal Sciences, 403 Pharmacy Building, Auburn University, Auburn, AL 36849-5503.** Auburn University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

University of California, San Diego, TENURE-TRACK ASSISTANT PROFESSOR POSITION IN PHYSICAL CHEMISTRY. The Chemistry Department of the University of California, San Diego is recruiting for a position in the area of experimental physical chemistry. Candidates must have a Ph.D. degree and a demonstrated ability for creative research and for teaching at the undergraduate and graduate levels. Open position subject to availability of funds. All applications received through 15 February 1992 will be given thorough consideration. Salary commensurate with experience and based on the University of California pay scale. Candidates should send curriculum vitae, a list of publications, reprints of up to five representative papers, a summary of research plans, and names and addresses of three references to: **Chair, Physical Chemistry Search Committee, University of California, San Diego, Department of Chemistry-0332, 9500 Gilman Drive, La Jolla, CA 92093-0332.** The University of California is an Equal Opportunity/Affirmative Action Employer.

### THE DEPARTMENT OF PATHOLOGY UNIVERSITY OF CALIFORNIA SAN FRANCISCO (UCSF)

is recruiting at the ASSISTANT OR ASSOCIATE PROFESSOR level for full-time positions with service, research, and teaching responsibilities. The successful M.D. or M.D.-Ph.D. candidates should be Board-certified or Board-eligible in anatomic pathology, with expertise and experience in surgical pathology, cytopathology, or other subspecialty. The positions are designed so that the individuals may have approximately half of their time available to pursue an investigative program. Please send your curriculum vitae to: **Pathology Search Committee, c/o Noel Weidner, M.D., Department of Pathology, University of California, San Francisco, CA 94143-0506.** An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

# Senior Staff And Postdoctoral Opportunities.

Excellent opportunities for conducting research are now available with leading scientists at the National Institutes of Health.

## Senior Staff Fellowship

**Neuroscience**  
**William J. Freed, PhD**

Studies of neuronal plasticity and neural tissue grafts will be conducted by a researcher with experience in neural plasticity, brain tissue transplantation, brain immunology, and *in vitro* cell-cell interactions. Familiarity with protein purification, cell adhesion, immunocytochemistry, and *in vitro* cell characterization is desirable. US citizenship and at least four years of postdoctoral experience are required. Neuropsychiatry Branch (OE-3), NIMH Neuroscience Center at St. Elizabeth's, 2700 Martin Luther King Jr. Avenue, SE, Washington, DC 20032.

## Postdoctoral Fellowships

**Macromolecular Crystallography**  
**Craig Hyde, PhD**

A newly established, well-equipped laboratory seeks a number of candidates to study the structure and function of biological macromolecules. X-ray crystallography, crystallographic computing and computer graphics, and protein purification and crystallization are used to study multienzyme complexes, multifunctional proteins, macromolecular assemblies, structural and cytoskeletal proteins, and viral proteins (including HIV). Laboratory of Structural Biology Research (OE-3), NIAMS, Building 2, Room 316.

**Molecular Immunology**  
**Warren J. Leonard, MD**

Molecular aspects of NF- $\kappa$ B and the human interleukin-2 (IL-2) receptor system are being studied. Current studies focus on elucidating IL-2 receptor structure and function and the molecular aspects of IL-2 receptor gene regulation. Previous experience in molecular biology or immunology is required and initial appointment is for two years. Section on Pulmonary and Molecular Immunology (OE-3), NHLBI, Building 18T, Room 101.

**Molecular Retrovirology**  
**Edward L. Kuff, MD, PhD**

The molecular basis for selective activation of particular endogenous proutroviral elements within a large population of otherwise latent units is being studied. Mechanisms that determine the demethylation of specific proutroviral elements and cellular factors that mediate the transcriptional response to changes in methylation status are currently being characterized. Laboratory of Biochemistry (OE-3), NCI, Building 37, Room 4C03.

**Molecular Virology**  
**Stephen E. Straus, MD**

The regulation and expression of herpesvirus latency genes are being studied in order to better understand the basic biology of the herpesvirus. Doctoral level experience in molecular virology or cell biology and related disciplines is essential. Full support is committed initially for two years. Laboratory of Clinical Investigation (OE-3), NIAID, Building 10, Room 11N228.

## Additional Postdoctoral Fellowship Opportunities

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

## To Apply

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



# National Institutes Of Health

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## POSITIONS OPEN

### VERTEBRATE ECOLOGIST

Ph.D. required. Tenure track; teach undergraduate core course in ecology; general zoology; specialty ecology courses. Broad training in zoology and botany. Demonstrated ability and commitment to teaching. Special interest in evolutionary, population, physiological or behavioral ecology. **ASSISTANT PROFESSOR.** 1 March 1992 application deadline. 24 August 1992 starting date. *An Equal Opportunity/Affirmative Action Employer.* For details or to apply contact: V. Thiesfeld, Chair, Department of Biology, University of Wisconsin-Stevens Point, Stevens Point, WI 54481. Telephone: 715-346-2159; FAX: 715-346-3624. An alphabetical list of all nominees and applicants, without differentiation, may be released following the closing date.

### POPULATION BIOLOGIST UNIVERSITY OF DALLAS

The University of Dallas, a selective Catholic liberal arts university, seeks a population biologist for a tenure-track appointment at the **ASSISTANT OR ASSOCIATE** level beginning August 1992. He/she should be able to teach comparative anatomy, ecology, and either evolutionary biology or developmental biology, although other combinations will be considered. Successful candidates will also teach a course in their field of expertise and maintain an active research program with undergraduates. Ph.D. is required along with proven teaching and research ability. Applicants should submit curriculum vitae, names of three references, and a statement describing the nature of their commitment to undergraduate teaching and research. These items should be submitted to: Dr. Frank Doe, Department of Biology, University of Dallas, Irving, TX 75062. Review of applications will begin 21 January 1992. *Equal Opportunity Employer.*

### DEPARTMENT OF BIOLOGY CLARION UNIVERSITY OF PENNSYLVANIA

The Department of Biology anticipates openings and invites applications for four tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Applicants will be expected to demonstrate excellence in teaching both majors and nonmajors. Participation in teaching a general education course for freshman and sophomore students will be expected. Candidates will also be expected to develop a research program that actively involves undergraduate and master's degree students. A Ph.D. in an appropriate area is required for all positions. **INVERTEBRATE BIOLOGY:** responsibilities include teaching entomology, limnology, evolution, and an opportunity to develop a course in the candidate's specialty. Strong quantitative skills are required. Research interests in aquatic invertebrates preferred. **POPULATION ECOLOGY:** responsibilities include teaching principles of ecology, biometry, fisheries biology, and an opportunity to develop a course in the candidate's specialty. Strong quantitative skills are required. Research interest in fish population preferred. **PLANT COMMUNITY ECOLOGY:** responsibilities include teaching introductory plant biology, plant ecology and an opportunity to develop a course in the candidate's specialty area. Strong quantitative skills are required. Strengths in systems ecology and plant taxonomy are preferred. **IMMUNOLOGY/MICROBIOLOGY:** responsibilities include teaching immunology, pathogenic microbiology, and participation in a lab-oriented biotechnology course. Experience with molecular biology technique preferred. Clarion University is a state-owned multipurpose university located in western Pennsylvania. The Department of Biology has 180 undergraduate majors and approximately 10 to 15 master of science students. The department has microcomputers and access to the university's VAX mainframe with SAS and other software to support teaching and research. *Clarion University is building a diverse academic community and encourages minorities, women, Vietnam era veterans and persons with disabilities to apply. Affirmative Action/Equal Opportunity Employer.* Applicants should send curriculum vitae, official transcripts, statement of teaching and research interests, and three letters of reference by Friday, 31 January 1992 to: Dr. Peter Dalby (Invertebrate search), Dr. R. McPherson (Population search), Dr. E. Zielinski (Plant search), or Dr. T. Morrow (Immunology/Microbiology search), Department of Biology, Clarion University of Pennsylvania, Clarion, PA 16214.

## POSITIONS OPEN

### BIOLOGICAL SCIENCES

Northern Illinois University anticipates three tenure-track **ASSISTANT PROFESSOR** positions, two for fall 1992 and one for January 1993. A Ph.D. and postdoctoral experience are required. Each candidate will be expected to develop a vigorous externally funded research program, direct graduate (M.S. and Ph.D.) students, and teach introductory courses for majors and nonmajors.

**CELL/MOLECULAR PHYSIOLOGIST:** with research experience in cell signal transduction. Areas of specific interest may include receptor proteins, ion channels, second messengers, protein kinases, protein/DNA interactions and oncogenes. Teaching duties will include an anatomy-physiology course and a course in the candidate's area of expertise. Fall 1992.

**PLANT PATHOLOGIST:** whose research involves the interactions between plants and their pathogens or symbionts. Teaching duties will include an introductory course in plant science and a course in plant pathology. Fall 1992.

**MICROBIOLOGIST:** to enhance existing programs with preference given to individuals conducting research in areas such as mutagenesis and/or DNA damage and repair. Teaching duties will include an introductory course in microbiology and a graduate course in the candidate's area of expertise. January 1993.

Send a letter of interest, curriculum vitae, brief statement of research goals, representative reprints, and three letters of reference by 31 January 1992 to: Dr. Marvin Starzyk, Chair, Department of Biological Sciences, Northern Illinois University, DeKalb, IL 60115-2861. Telephone: 815-753-1753. *Northern Illinois University is an Affirmative Action/Equal Opportunity Employer.*

### CELL/MOLECULAR BIOLOGIST

The Department of Anatomy and Cell Biology at Georgetown University is seeking a cell/molecular biologist to fill a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level, beginning 1 July 1992. Applicants should have completed postdoctoral training and be capable of establishing an independent research program supported with extramural funds. While the specific area of research is not as important as excellence, individuals who utilize molecular approaches in developmental studies are encouraged to apply. Participation in the departmental teaching program is expected. Curriculum vitae, representative publications, and the names of three references should be sent to:

Dr. Martin Dym, Chairman  
Department of Anatomy and Cell Biology  
Georgetown University Medical Center  
3900 Reservoir Road, N.W.  
Washington, DC 20007

Deadline for application receipt is 15 February 1992. *Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN PHARMACOLOGY ASSISTANT/ASSOCIATE PROFESSOR

The Department of Pharmacology, University of Tennessee College of Medicine, is seeking candidates with research interests in cancer pharmacology/tumor biology for a tenure-track position, available 1 July 1992, to initiate a laboratory program in the area of cellular growth factors and regulators of relevance to problems in current cancer therapy. Experience in the application of modern constructs of biochemistry, molecular biology, and cell biology to the area of research is essential. Candidates should possess the Ph.D. degree in pharmacology, biochemistry, or a related discipline, or the M.D. degree, and should have demonstrated excellence in research and a commitment to teaching. Candidates will be expected to establish an independent research program and participate in teaching of pharmacology to professional and graduate students. *Applications from minority candidates and women are strongly encouraged.* Please submit curriculum vitae, the names of three references, and a brief statement of future research plans to: Dr. Mervyn Israel, Search Committee Chairman, or Dr. Murray Heimberg, Department Chairman, Department of Pharmacology, University of Tennessee, Memphis, The Health Science Center, Memphis, TN 38163. Search will continue until the position has been filled. *The University of Tennessee, Memphis is an Equal Employment Opportunity/Title IX/Section 504/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR BIOCHEMISTRY/MOLECULAR BIOLOGY

The Department of Biochemistry at the Uniformed Services University (USUHS) invites applications for two 12-month salaried tenure-track positions available in 1992. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Candidates at the assistant professor level must have postdoctoral experience and will be expected to develop a vigorous basic research program. Applicants for associate professor should have an ongoing extramurally funded research program, and have teaching experience. Faculty will participate in the training of medical and graduate students. Please send curriculum vitae, reprints of two to three publications, a statement of future research plans, and at least three letters of recommendation by 1 February 1992 to: Uniformed Services University of the Health Sciences, c/o Civilian Personnel Office (LD-BIOCHEM), Biochemistry Search Committee, 4301 Jones Bridge Road, Bethesda, MD 20814. *USUHS is an Equal Opportunity Employer.*

### BLOOD BANK PHYSICIAN

The Department of Pathology and Laboratory Medicine at Emory University School of Medicine continues to expand its Program in Transfusion Medicine. We seek applications from physicians who are Board-certified or Board-eligible in blood banking (ABP) and have research interests and productivity in an area of transfusion medicine which can be pursued in our unique clinical environment. The position is at the level of a tenured or tenure-track **ASSISTANT OR ASSOCIATE PROFESSOR**, depending on past experience and productivity. The successful applicant will be expected to participate in the clinical and teaching activities of the department as well as pursue clinical and/or basic research. Please send curriculum vitae and the names of four references to: Kenneth W. Sell, M.D., Ph.D., Professor and Chairman, Department of Pathology, 703 Woodruff Memorial Building, Emory University, Atlanta, GA 30322. All applications received prior to 1 February 1992 will be considered. *Emory University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### CELL AND MOLECULAR BIOLOGIST

**ASSISTANT/ASSOCIATE PROFESSOR** position (tenure-track) is available at Case Western Reserve University School of Medicine and University Hospitals of Cleveland in the Department of Orthopaedic Surgery and the Skeletal Research Center. A multidisciplinary research individual interested in basic research of bone, cartilage, tendon/ligament and muscle will provide interactive support for the new faculty member. New modern space, competitive salary and the continued growth of the musculoskeletal scientific community on our campus provides a positive atmosphere for scholarly growth. It is expected that competitive applicants would also be considered for joint appointments in one of the basic science departments of the School of Medicine. Those interested should forward their curriculum vitae, a statement of their research interests and current support together with names, addresses and telephone numbers of four references to: Ed Greenfield, Ph.D., Chairperson, Musculoskeletal Search Committee, Case Western Reserve University School of Medicine, 2119 Abington Road, Cleveland, OH 44106.

### PROFESSOR DIRECTOR OF SCIENCE DEVELOPMENT

Hamline University seeks applications and nominations for a new senior-level interdisciplinary faculty position in the sciences. Departmental affiliation will be in biology, chemistry, mathematics or physics. We seek a person who has a broad scientific background, a distinguished research record and is committed to teaching, development of grant proposals, and fostering student-faculty research in a liberal arts college. Nominations or applications (including letter of interest with teaching philosophy and research interests, salary and support expectations, curriculum vitae and three letters of reference) should be sent to: Jerry Greiner, CLA Dean's Office, Hamline University, 1536 Hewitt Avenue, St. Paul, MN 55104. Screening of applications will begin 31 January 1992 and continue until a successful candidate has been chosen.

*An Equal Opportunity/Affirmative Action Employer.*



## THE WORLD HEALTH ORGANIZATION

has a vacancy with its Global Programme on AIDS (GPA)  
at its Headquarters in Geneva for the post of

### SCIENTIST

**Duties:** Under general direction, the incumbent develops policy and position papers especially with respect to public health aspects of HIV/AIDS; ensures the consistent development and implementation of public health policies; and supports the work of the Global Commission on AIDS.

**Qualifications required:** Degree in medicine with postgraduate degree in public health, or degree at the highest university level in biomedical sciences or epidemiology. Ability to analyse and evaluate health policy issues, conceptualize strategies, and formulate actions; critically review scientific reports, especially those of a public health policy nature. Ability to direct the work of others and excellent verbal and written communication skills. Extensive knowledge of AIDS-related work. Knowledge of WHO policies and programmes would be an advantage. Extensive national experience in clinical medicine or public health; considerable experience in public health policy issues; experience in AIDS-related work, extensive experience in preparing scientific reports. Excellent knowledge of English and French.

An attractive package of salary, international allowances, social security and statutory entitlements, is offered.

A detailed curriculum vitae with photograph should reach the following office within three weeks of publication of this advertisement quoting reference "MPR/GPA/PPC/SCI" and the name of this journal:

**Personnel Officer  
World Health Organization  
Avenue Appia  
1211 Geneva 27, Switzerland**

*Applications from women are encouraged  
Only candidates under serious consideration will be contacted.*

### POSTDOCTORAL FELLOW

The Basic Animal Science Research Department of Merck Sharp and Dohme Research Laboratories in Rahway, New Jersey has a post-doctoral fellowship position available for a highly motivated scientist interested in joining our animal physiology and biochemistry program.

The successful candidate will participate in the study of calcium and potassium channels in isolated pituitary and GH3 cells. In addition, the candidate will be involved in projects to clone receptors from the pituitary.

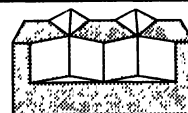
Preference will be given to candidates with a background in electrophysiology, molecular biology or hormone secretion. This position is in a new and enthusiastic group that is taking a multidisciplinary approach to understanding pituitary hormone secretion.

Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles south of New York City. Please forward a curriculum vitae with a cover letter to:  
**Human Resources Mgr., Dept. S-30, Merck Sharp and Dohme Research Lab., P.O. Box 2000, WBC-155, Rahway, New Jersey 07065-0900.**

EEO/AA/VH/Employer



**Merck & Co., Inc.**



The Mount Sinai Medical Center of New York

### Assistant Professors Cell Biology

The Cell Biology and Anatomy Department of the Mount Sinai School of Medicine resumes the recruitment of additional tenure-track Assistant Professors in Cell Biology. A major research focus concerns intracellular protein translocation, vesicular transport, and membrane and organelle assembly, approached with molecular and genetic techniques. We are particularly interested in yeast as an experimental organism, and in studies of fundamental cellular processes which, when defective, are known to cause human diseases. Newly renovated space and extensive research support facilities are available. Ph.D.'s with demonstrated research prowess should send a curriculum vitae, one page summary of research plans, recent publications, and the names, addresses and telephone numbers of three references to **Dr. Paul B. Lazarow, Chairman, Cell Biology and Anatomy, Box 1007, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

**MOUNT SINAI**

## NANOTECHNOLOGY

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## POSTDOCTORAL POSITIONS IN CELLULAR AND MOLECULAR NEUROBIOLOGY



La Jolla, California

The newly established Department of Neurobiology has 5 postdoctoral positions available to study various aspects of molecular, cellular and developmental neurobiology. Major areas of interest are cell-cell and cell-substratum adhesion molecules, neurite outgrowth, and nerve regeneration. Specific studies include: analysis of morphogenetic pathways during neural development; identification of signal transduction pathways activated by adhesion molecule binding; control of expression of adhesion molecules, particularly by pattern-forming genes such as *hox* and *pax*; studies of overexpression or deletion of adhesion molecules in transgenic mice; characterization of new neural adhesion molecules; studies of diffusible signals such as nitric oxide in brain development; relationship between cytoskeletal states and control of cell shape and mitogenesis; theoretical analysis of reentrant pathways in the brain. Requires a strong background in cellular and/or molecular biology and biochemistry. Send CV and 3 letters of reference to: Dr. Gerald M. Edelman, Dept. of Neurobiology, The Scripps Research Institute, 10666 North Torrey Pines Rd., MB12, La Jolla, CA 92037. AA/EOE.



## POSITIONS OPEN

### FACULTY POSITION DEPARTMENT OF BIOLOGICAL SCIENCES FORDHAM UNIVERSITY

The Department of Biological Sciences invites applications for two tenure-track positions which will be filled at either the **ASSISTANT OR ASSOCIATE PROFESSOR** level with individuals who will be involved in both graduate and undergraduate education. One position will be filled by an **ECOLOGIST**. Scientists with expertise in population biology or the application of molecular techniques to ecological problems are especially encouraged to apply. The ecologist will contribute to the program at the department's biological field station located in Armonk, New York. The second position will be filled by an **IMMUNOLOGIST** with preference given to individuals employing molecular techniques in the study of the immune system. This individual will be situated in the department's newly renovated facilities at the Rose Hill Campus in the Bronx and will benefit from state-of-the-art equipment available at this site.

Individuals interested in either of these positions should send curriculum vitae, statement of research and teaching interests, and the names of three professional references by 1 February 1992 to: **Dr. Berish Y. Rubin, Chairman, Department of Biological Sciences, Larkin Hall, Fordham University, Bronx, NY 10458.** *Fordham University is an Affirmative Action/Equal Opportunity Employer.*

The University of Vermont (UVM) College of Medicine is seeking a medical oncologist at the **ASSOCIATE PROFESSOR/PROFESSOR** level to be director of the Hematology/Oncology Unit of the Department of Medicine. We seek individuals with a broad interest in all cancer treatment modalities, and with a particular interest and expertise in intensive therapy with hematologic support. Expansion of the research programs of the unit, with an emphasis on new treatment modalities is an important goal. The unit is affiliated with the Vermont Cancer Center, an NCI-designated Comprehensive Center. In addition to clinical research, the Cancer Center includes active programs in drug development, molecular epidemiology, growth control/signal transduction, and cancer prevention. The new director will assume a senior leadership role in the Cancer Center. Please send letter of inquiry and curriculum vitae to: **F. John Gennari, M.D., Professor and Associate Chairman, Department of Medicine, University of Vermont College of Medicine, Given D 305, Given Building, Burlington, VT 05405.** *UVM is an Affirmative Action/Equal Opportunity Employer. Applications from women and people from diverse racial, ethnic and cultural backgrounds are encouraged. Position open until filled.*

### CANCER CENTER DIRECTOR

The University of Florida College of Medicine is seeking a Cancer Center Director who will hold a 12-month academic administrative appointment and reports to the Dean of the College of Medicine. This individual will hold a tenure-track faculty appointment as **PROFESSOR**. The candidate should have an M.D. degree with excellent clinical credentials and a solid track record in research achievement.

Responsibilities include: The Cancer Center Director will serve as the Medical Director of the ambulatory Cancer Center and will serve as Director of the Cancer Center. The Director will promote multidisciplinary clinical and research activities in areas related to cancer. The Director will direct activities in support of the institution's application for the Cancer Center core grant; will recruit research faculty to endowed chairs related to cancer research. The Director will develop cancer screening and community education projects as appropriate. The Director will serve as chairperson of the Cancer Center Steering Committee and administer space assignments for the Cancer Center.

Letters of application should consist of current curriculum vitae and include a summary of relevant research, clinical and administrative experience. The application deadline is 15 March 1992. Applications should be sent to:

**James E. McGuigan, M.D.  
Search Committee Chairman  
Chairman, Department of Medicine  
University of Florida College of Medicine  
Box 100277  
Gainesville, FL 32610-0277**

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

## POSITIONS OPEN

### FULL PROFESSOR FUSION PLASMA PHYSICS ROYAL INSTITUTE OF TECHNOLOGY STOCKHOLM

The professorship includes experimental and theoretical research and teaching at the Royal Institute of Technology, with the main aim of achieving thermonuclear fusion using magnetic plasma confinement. The Fusion Plasma Physics Department forms part of the Institute's Alfvén Laboratory and is strongly engaged in the Euratom-Sweden Research Program.

Detailed information and formal rules for applications will be sent on request from "Kansli E", **Royal Institute of Technology, S-100 44 Stockholm, Sweden** or FAX +46-8 790 9189. You may also call either Professor **Bo Lehnert**, +46-8 790 7703 or Dr. **Erling Dahlberg**, +46-8 790 8499.

Applications should be directed to the **Swedish Government** and be received no later than 31 January 1992 by the **Registrar, Royal Institute of Technology, S-100 44 Stockholm, Sweden**. As explained in the regulations, supplementary material will be accepted within three weeks of the closing date.

### PROFESSOR AND CHAIRPERSON DEPARTMENT OF PHARMACOLOGY

The College of Medicine of Howard University invites applications and nominations for the position of Chairperson of the Department of Pharmacology. The candidate should possess a Ph.D. degree in pharmacology or the M.D. degree with research expertise in molecular biology and pharmacology. Applicants should have experience in teaching and administration. The Department of Pharmacology is responsible for educational programs for medical, dental, pharmacy and graduate students. The department has strong research programs in several specialty areas of pharmacology.

Nominations and applications should be received before 30 April 1992. *Women and minorities are encouraged to apply.* Applications consisting of a letter of intent, curriculum vitae and three references should be sent to: **Allen R. Rhoads, Ph.D., Chairman of the Pharmacology Search Committee, Department of Biochemistry and Molecular Biology, College of Medicine, Howard University, 520 W Street, N.W., Washington, DC 20059.** *Howard University is an Equal Opportunity/Affirmative Action Employer.*

### DISTINGUISHED PROFESSORSHIP IN QUANTITATIVE ECOLOGY

The College of Natural Resources at the University of Wisconsin in Stevens Point is seeking an accomplished scholar/teacher for a tenure-track Distinguished Professorship in Quantitative Ecology. Responsibilities include teaching, research, and extension of quantitative ecology to natural resource management. Preference will be given to candidates who have successfully collaborated with public agencies or natural resource industries to promote ecologically sound resource use and economic development. Research experience in GIS and/or biometrics is preferred. Deadline for applications is 1 March 1992 and screening of applicants will begin at that time. Candidates should send letter of interest, résumé that corroborates the above-mentioned qualifications, three letters of recommendation and the names of three other references to:

**Dr. Stanley W. Szczytko, Chair  
Search and Screen Committee  
College of Natural Resources  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
Telephone: 715-346-4181**

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## POSTDOCTORAL FELLOW

Applications are being accepted for a Postdoctoral Fellow to work on the development of new recombinant toxins for the treatment of cancer and AIDS and how these toxic proteins act to kill target cells. Applicants should have some experience in either molecular biology or protein chemistry.

Stipend/salary commensurate with education, training, and experience.

Interested individuals should send curriculum vitae, bibliography, and statement of research interests to:

**Ira Pastan, M.D., Chief,  
Laboratory of Molecular Biology  
National Cancer Institute  
National Institutes of Health  
PHS/DHHS  
Building 37, Room 4E16  
9000 Rockville Pike  
Bethesda, MD 20892**



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## HAMILTON REGIONAL CANCER CENTRE THE ONTARIO CANCER TREATMENT & RESEARCH FOUNDATION

### TUMOR BIOLOGIST (PHOTOBIOLOGY/RADIOBIOLOGY)

A tumor biologist or radiobiologist is required for a full-time, permanent, faculty-level position at the Hamilton Regional Cancer Centre in association with McMaster University.

Join an existing program of research in photodynamic therapy and oncologic applications of lasers. Contribute expertise in tumor biology to other research programs, including the use of monoclonal antibodies for therapy and imaging, and cellular/molecular studies of mechanisms of metastasis.

Level of appointment will depend on qualifications and experience. A PhD and several years post-doctoral experience is required. Candidates must provide evidence of capability for independent research.



Please forward resumé to:  
Hamilton Regional Cancer Centre  
Human Resources Department  
711 Concession Street  
Hamilton, Ontario  
CANADA  
L8V 1C3

In accordance with immigration requirements, preference will be given to Canadian citizens and permanent residents. Further information may be obtained from Dr. B. Wilson at (416) 387-9495 or fax (416) 575-6330.



**Yale** UNIVERSITY

### Associate Research Scientist /Lecturer

The Department of Biology, Training and Research Support Division seeks to appoint a non-ladder faculty member to design and conduct innovative state-of-the-art laboratory courses in cell, molecular, and developmental biology, including a new offering in the biology and chemistry of proteins. Primary focus will be placed on the development of undergraduate and graduate level courses. Applicants should have a PhD or equivalent with one to two years postdoctoral experience. A strong interest in teaching is essential. The appointee will have the opportunity to participate in technique development and to establish collaborative ties with on-going research programs.

Please send curriculum vitae, letter of interest and the names and addresses of three references by February 15, 1992 to: **Executive Secretary, Training and Research Support Division, Department of Biology, Osborn Memorial Laboratory, 165 Prospect Street, P.O. Box 6666, New Haven, CT 06511-7444.**

*An Affirmative Action/Equal Opportunity Employer. Women and Minority Group Members are especially urged to apply.*

## Cellular/Molecular Biologist

Wyeth-Ayerst Laboratories, a major division of Fortune 100 American Home Products Corporation, has a challenging opportunity for a Cellular/Molecular Biologist in our modern research facility in Princeton, NJ.

This position will be primarily responsible for developing and maintaining cell lines, undertaking basic research projects involving cell growth and proliferation, as well as identifying and developing novel cardiovascular pharmaceutical agents. We seek a BS/MS with extensive experience in cell biology including tissue culture, monoclonal antibody production and Northern blot analysis. Experience in Molecular Biology desired.

We offer excellent compensation, benefits and career advancement. Our research laboratory is just minutes away from Princeton University and convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Personnel Manager, CN 8000, Position #404, Princeton, NJ 08543-8000.** An equal opportunity employer, M/F/H/V.



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# ANNOUNCING INTERNATIONAL SYMPOSIUM ON MOLECULAR CYTOGENETICS

February 6-8, 1992  
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A three day Molecular Cytogenetics Symposium, organized by Drs. David Ledbetter and Hunt Willard that will feature the following speakers and topics:

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- ☐ David Callen      ☐ Kathy Klinger

## **Chromosome Structure and Behavior**

- ☐ Hunt Willard      ☐ William Brown      ☐ Robin Lovell-Badge
- ☐ Terry Hassold      ☐ Chris Tyler-Smith

## **Clinical Cytogenetics**

- ☐ Robb Nicholls      ☐ David Ledbetter      ☐ Beverly Emanuel
- ☐ Steve Warren      ☐ Andrea Ballabio

## **Cancer Cytogenetics**

- ☐ Janet Rowley      ☐ Cynthia Morton
- ☐ Jeff Trent      ☐ Michelle LeBeau

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Oak Ridge, TN 37831-0117  
(615) 576-4805

Deadline January 15 1992

## PROFESSORSHIP

Thomas Jefferson University invites applications for the Warren Lang Professorship of Pathology and Director of the Division of Molecular Pathology in the Department of Pathology and Cell Biology. The Lang Professor will be expected to recruit several faculty members to be supported by the department. The division occupies 6,000 sq. ft. of newly remodeled and fully equipped research laboratories, and interfaces with the Jefferson Cancer Institute (Carlo Croce, Director) and the Jefferson Institute of Molecular Medicine (Darwin Prockop, Director).

Applicants should have a proven record of accomplishments in research and appropriate academic experience. Interested parties should send their curriculum vitae to any member of the search committee: Emanuel Rubin, MD; Renato Baserga, MD; Carlo Croce, MD; Thomas Jefferson University, 11th & Walnut Streets, Philadelphia, PA 19107. Equal Opportunity Employer.



Thomas  
Jefferson  
University

## TENURE-TRACK POSITION AT THE NIH

A junior tenure-track position is available in the Genetics and Biochemistry Branch, NIDDK, NIH. Applications are invited from individuals of the highest caliber who will complement the scientific interests of the current staff. The Branch is similar to a small academic department and has excellent laboratory facilities. The intramural program of the NIH offers an outstanding research environment and the primary responsibility of the successful applicant will be to initiate and establish a first-rate research program. The Branch is located on the main intramural campus of the NIH in Bethesda, Maryland, a 20 minute ride from Washington, D.C. The current interests of the faculty-level staff include:

- Eukaryotic DNA repair, molecular mechanisms of toxin action, and mechanisms of nuclear and cytoplasmic localization of proteins and nucleic acids in *Xenopus* (**Eric Ackerman**)
- Biochemistry and molecular biology of homologous recombination in eukaryotes and prokaryotes, the structure and function of novel triplex DNAs, gene rearrangements in eukaryotes (**Dan Camerini-Otero**)
- Molecular mechanisms of homologous recombination in higher eukaryotes, functional studies of mammalian DNA ligases and the formation and recognition of DNA mismatches (**Peggy Hsieh**)
- Molecular basis of mechanisms involved in hormonal and developmental control of gene expression: protein-nucleic acid interactions, trans acting factors of steroid/thyroid hormone receptor gene superfamily (**Vera Nikodem**)
- Molecular genetics of lysosomal storage diseases, protein trafficking, gene targeting by homologous recombination to produce models of human disease (**Rick Prola**)
- Control of gene expression in vertebrates (**Ed Rall**)
- Thyroid hormone-protein interactions and the mechanism of intracellular thyroid hormone transport, genetic factors in thyroid neoplasia, and clinical studies in thyroid cancer (**Jacob Robbins**)
- Determinants of anteroposterior axis formation and the role of transcription factors in the specification of neuronal phenotypes in early *Xenopus* development (**Sheryl Sato**)

Interested candidates should send a letter stating their research interests, their curriculum vitae and list of publications, and the names and addresses of three references to:

**Dr. R. Daniel Camerini-Otero, Chief**  
**Genetics and Biochemistry Branch**  
**National Institutes of Health**  
**Building 10, Room 9D-15**  
**9000 Rockville Pike**  
**Bethesda, Maryland 20892**



## POSITIONS OPEN

### TENURE-TRACK FACULTY POSITIONS PARASITOLOGIST AND EXPERIMENTAL VETERINARY PATHOLOGIST

**PARASITOLOGIST:** a parasitologist with a demonstrated record of excellence in research and documented teaching experience.

**PATHOLOGIST:** an experimental pathologist with training in veterinary anatomical pathology. Salary and rank commensurate with training and experience for both positions.

Send curriculum vitae, statement of research and teaching objectives, and names of at least three references to: Dr. R. D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, 2015 Linden Drive West, Madison, WI 53706-1102.

### RESEARCH FACULTY POSITION

Requirements include an M.D. or Ph.D. degree with appropriate postdoctoral experience in one of the following areas (1) intestinal immunity, (2) intestinal protozoology, or (3) biochemical aspects of nutrition. This individual will be part of a research team that is studying the enteric aspects of HIV infection among patients in Africa. Please send curriculum vitae and names of three references to: Ms. Cheryl Jones, UTHSC, Center for Infectious Diseases, 6431 Fannin Street, JFB 1728, Houston, TX 77030. The University of Texas Health Sciences Center at Houston is an Equal Opportunity Employer. Women, minorities, and the disabled are encouraged to apply.

### POLYMER SCIENCE AND ENGINEERING UNIVERSITY OF MASSACHUSETTS AT AMHERST

The Department of Polymer Science and Engineering is seeking to make a **FACULTY APPOINTMENT** in the area of structure/morphology. The appointment will most likely be at the assistant professor level but exceptionally promising candidates at more senior levels will also be considered. Qualifications for a senior appointment include an international reputation in the morphology/structure of polymers field. Qualifications for appointment at a junior level include exceptional evidence of promise for establishing an internationally recognized research program and appropriate level of postdoctoral, industrial, or previous academic experience. Salary commensurate with qualifications and experience. It is desired to fill the position by the beginning of the fall semester 1992 or as soon thereafter as possible. Applications are requested by 1 March 1992, but the search will remain open until the position is filled. Send résumés, and the names of at least three references to: William J. MacKnight, Polymer Science and Engineering, University of Massachusetts, Amherst, MA 01003. The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS, GENE MAPPING.** USDA, Agricultural Research Service (ARS), Meat Animal Research Center, Clay Center, Nebraska has postdoctoral-research associate positions available immediately in a group developing a map of the cattle and swine genomes. Candidates with a background in genetics/molecular biology and experience in molecular biology or cytogenetic techniques are encouraged to apply. Excellent facilities and established reference families provide a unique opportunity in this high-priority ARS program. Minimum starting salary of \$31,116 per year. Send curriculum vitae and names of three references to: Dr. Craig W. Beattie, Roman L. Hruska U.S. Meat Animal Research Center, P.O. Box 166, Clay Center, NE 68933, telephone: 402-762-4359; FAX: 402-762-4148. USDA-ARS is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS THE CLEVELAND CLINIC FOUNDATION

Postdoctoral positions available immediately to study the structure and function of peptide hormone receptors. Experience in protein chemistry, receptor biochemistry, enzymology and/or molecular cloning is required. Send curriculum vitae and three references to: Dr. Kunio Misono, Research Institute/FF3-02, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5071.

## POSITIONS OPEN

The Department of Zoology at The Ohio State University invites applications for a tenure-track **FACULTY POSITION**. Preference will be given to applicants with research interests in animal communication with an emphasis on evolutionary, ecological, or behavioral approaches. The candidate will be expected to develop an active, extramurally funded research program, and to contribute to the graduate and undergraduate teaching programs in the department. A primary duty of this faculty member will be to direct the Borror Laboratory of Bioacoustics and administer the department's zoological collections. As director, the applicant will be expected to develop a program of extramural funding to support these collections. The level at which the appointment is made is dependent on the qualifications of the applicant. *Qualified women, minorities, Vietnam era veterans, and disabled candidates are encouraged to apply.* Applicants should send curriculum vitae, copies of three significant publications, and the names and addresses of three references to: Dr. Peter W. Pappas, Chairperson, Department of Zoology, The Ohio State University, 1735 Neil Avenue, Columbus, OH 43210-1293 (telephone: 614-292-8088; FAX: 614-292-2180; E-mail PAPAS 3@OSU.EDU).

*The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION MOLECULAR AND CELL BIOLOGY

Available to study expression of glycosyltransferases/glycosidases involved in glycoprotein biosynthesis and processing. Send résumé and two letters of reference to:

Dr. Inder K. Vijay  
Program in Molecular and Cell Biology  
Room 2125 Animal Sciences Center  
University of Maryland  
College Park, MD 20742

*An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION, MOLECULAR NEUROENDOCRINOLOGY.** Applications are invited for a postdoctoral position available immediately for an NIH-funded project to study molecular mechanisms of regulation of the prolactin gene. Research involves investigations of intersecting pathways mediating positive and negative regulation by cell-specific mechanisms, peptide hormones, and dopamine [Mol. Endocrinol. 5, 1488 (1991); Mol. Cell. Endocrinol. 79, R1 (1991)]. Applicants should have a strong background in biochemistry, and preferably also in molecular biology. Send curriculum vitae and names and telephone numbers of three references to: Dr. Carter Bancroft, Department of Physiology and Biophysics, Box 1218, The Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029. *An Equal Opportunity Employer.*

### POSTDOCTORAL POSITIONS IN HUMAN GENETICS THE MOUNT SINAI SCHOOL OF MEDICINE

Research in the molecular biology of inherited diseases and the development of gene therapy. Experience with DNA techniques required. Send curriculum vitae and two letters of reference to: Dr. E. H. Schuchman, Medical and Molecular Genetics, The Mount Sinai School of Medicine, Box 1203, One Gustave L. Levy Place, New York, NY 10029-6574. *An Equal Opportunity Employer.*

### POSTDOCTORAL POSITION

In our research group a postdoctoral position is available for a period of 2 years. The project is to investigate biochemical processes during sequential degradation of municipal wastes with special regard to effects controlling transformation and/or degradation of codisposed organic pollutants. The position would suit someone with backgrounds in environmental microbiology and organic geochemistry. Applicants should be familiar with analytical instrumentation in organic chemistry (GC, HPLC, scintillation counting). Qualified candidates who are interested in interdisciplinary research teamwork should apply as soon as possible. Applications, including full curriculum vitae and names of two referees should be sent to: Department of Hydrology, University of Bayreuth, Professor Dr. R. Herrmann, z. Hd. Dr. Klaus Pecher, P.O. Box 101251, D-8580 Bayreuth, Germany. For further information about the project please telephone: 921-552255 or 921-552356.

## POSITIONS OPEN

**POSTDOCTORAL POSITION** open now for biophysical studies of biomembranes, model membranes and lipid-protein interactions primarily by NMR spectroscopy. A recent Ph.D. in biochemistry or biophysics is required; experience in solid state/magic angle spinning NMR spectroscopy is preferred. Send curriculum vitae and three letters of recommendation to: Dr. James A. Hamilton, Department of Biophysics, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. *An Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL POSITION MOLECULAR AND POPULATION GENETICS OF HIGHER PRIMATES

The New York Consortium in Evolutionary Primatology (NYCEP), consisting of 22 faculty from City University of New York, Columbia University, New York University, The American Museum of Natural History (AMNH), and Wildlife Conservation International (NYZS), invites applications to join a team using molecular genetic techniques (including RFLP analysis, PCR amplification and sequencing of DNA) to elucidate (1) the effects of behavior and demography on population structure in primates, and (2) primate phylogeny and systematics. The successful applicant will work primarily with either Dr. Don Melnick (Columbia University) or Dr. Clifford Jolly (New York University), for 1 year starting in September 1992. Applicants should have laboratory experience and the Ph.D. Salary and benefits are competitive. Please send a preliminary application, including curriculum vitae, a one-page statement of research interests, and names, addresses and telephone numbers of three references to: Dr. Eric Delson, Vertebrate Paleontology, AMNH, New York, NY 10024. *An Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL ASSOCIATE BASCOM PALMER EYE INSTITUTE UNIVERSITY OF MIAMI

To study Epstein-Barr Virus Infection of Ocular Mucosa-Associated Lymphoid Tissue. Position requires a Ph.D. or equivalent experience in microbiology/immunology biology. Send curriculum vitae, three names, addresses of references to: Dr. Stephen Pfugfelder, Department of Ophthalmology, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101; FAX: 305-326-6337. *An Equal Opportunity Employer.*

### POSTDOCTORAL TRAINING PROGRAM IN ENDOCRINOLOGY AND METABOLISM

Positions are available in an NIH-funded program for M.D. and Ph.D. trainees who are citizens or permanent residents of the United States. The program consists of conducting research in the laboratory of one of 16 NIH-funded preceptors and relevant course work needed to prepare for a career in academic biomedical research. Research training at the molecular and cellular level can be acquired in the actions of insulin, growth factors, TRH, and steroid hormones; in structure/function relationship of hormone receptors; and in clinical research involving obesity, diabetes, aging and the regulation of metabolism and energy expenditure in human subjects. For more information and application forms write to: Dr. James Livingston, Box 693, University of Rochester Medical Center, Rochester, NY 14642.

**POSTDOCTORAL POSITION** available to study the enzymatic mechanisms of DNA recombinases and DNA helicases. The research will include the use of protein engineering to construct mutant enzymes having altered catalytic properties. Experience in mechanistic enzymology, nucleic acid biochemistry, or protein chemistry is required. Send curriculum vitae and names of references to: Dr. F. R. Bryant, Department of Biochemistry, Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205.

**POSTDOCTORAL POSITIONS.** Available in Department of Anatomy. Applicants must have a Ph.D. or M.D. degree. Positions available during 1992 and 1993. Closing date: 20 January 1992 or until positions are filled. *Women and minorities are urged to apply.* Send applications to: Dr. Robert McCuskey, Head, Department of Anatomy, University of Arizona, Arizona Health Sciences Center, Tucson, AZ 85724. *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

## CHIEF

**Biometry Branch**  
Medical Officer/Mathematical  
Statistician  
(GM0602/1529-15)

The Division of Cancer Prevention and Control, National Cancer Institute, NIH, Bethesda, Maryland, is seeking a leader for its Biometry Branch who will be responsible for planning, directing and carrying out the research program of the Branch:

- Independent and cooperative research studies on cancer epidemiology, prevention, screening, diagnosis, treatment, and control using methods of mathematical and analytic statistics; biostatistical and epidemiologic methodology; and mathematical modeling of processes relevant to cancer prevention and control activities.
- Consultation and review of proposed projects concerning biostatistical methodology and study design to staff of the Division and to investigators in other divisions of the NCI and elsewhere
- Providing expertise in statistics and biometry to program managers and scientific decision-makers within the NCI and outside.

An M.D., Ph.D., or equivalent is required. U.S. citizenship is required. Applicants should send their curriculum vitae and list of publications (or requests for further information) to Ms. Annetta Weiss, NCI Personnel, Executive Plaza South, Room T-43, 9000 Rockville Pike, Bethesda, MD 20892 (301-496-8657). *Deadline for application is January 6, 1992.*

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## POSTDOCTORAL SCIENTIST MOLECULAR BIOLOGIST/VIROLOGIST

The Upjohn Company, a recognized leader in pharmaceutical research and development, currently has an opening for a Postdoctoral Scientist in our Therapeutics Group (Viral Vaccines Program) of the Agricultural Division.

This person will work directly with other scientists and with molecular virologists from our Biotechnology Group in designing and conducting experiments in cloning and expression of viral and cellular genes concerned with disease processes in domestic animals. This work will emphasize the use of bovine herpes virus-1 as a vector for other viral and cellular genes. Experience and knowledge of herpes virus replication and gene control would be a strong plus. Position requires a highly-motivated individual with a recent Ph.D. in a related discipline. Appointments are for one year renewable for a second year.

We offer a very competitive salary and benefits package commensurate with experience in addition to a stimulating, multi-disciplinary research environment. In 1990, Upjohn committed over \$400 million to research and development and we are currently increasing our downtown Kalamazoo research facilities by 50%. Qualified candidates are invited to send their curriculum vitae and cover letters to: **THE UPJOHN COMPANY, CORP. RECRUITING, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001 USA.** Please refer to Position Code #900659-050 in your correspondence. An Equal Opportunity Employer M/F.

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## Electrophysiologist

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As a member of our Cardiovascular Drug Discovery Group, you will assist in the discovery of new ethical pharmaceuticals. This includes whole-cell and isolated membrane patch experiments to determine the effects of cardioactive compounds on voltage-gated and receptor-mediated ion channels. The successful candidate will have a PhD and post-doctoral experience in electrophysiology in vitro, especially cellular electrophysiology/biophysics of cardiac muscle. Some familiarity with single-cell recording and patch clamp techniques will be necessary.

At Norwich Eaton, we provide the career advantages of a Fortune 50 organization, coupled with the cultural benefits of a scenic up-state New York community. For confidential consideration, please forward curriculum vitae to: **Mr. Terry Stark, Personnel Representative, Norwich Eaton Pharmaceuticals, Inc., 17 Eaton Avenue, Norwich, New York 13815.**

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**Yale** UNIVERSITY

### *Molecular Evolution/ Phylogenetics*

The Department of Biology at Yale University is searching for a molecular evolutionist working on any group of organisms. While any approach will be considered, we are especially interested in someone using **phylogenetic analysis** to test evolutionary hypotheses. The appointment will likely be at the Assistant Professor level. The successful candidate is expected to pursue an active research program and teach at both the undergraduate and graduate level.

Applications including curriculum vitae, reprints/preprints and the names and addresses of at least three references by February 15, 1992 to: **Molecular Evolution Search, Chair's Office, Department of Biology, Yale University, P.O. Box 6666, New Haven, CT 06511-8112.**

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## POSITIONS OPEN

### POSTDOCTORAL POSITION

A position is available in gastrointestinal cell biology to study the effects of gastrointestinal peptides on various gastrointestinal target cells in vitro. Candidate with experience in cell biology, receptor binding assays, signal transduction and cellular biochemistry is desirable. Send letter stating interest, curriculum vitae and bibliography and names of three references to: **Dr. Jerry D. Gardner, Associate Chairman, Department of Internal Medicine, St. Louis University School of Medicine, St. Louis, MO 63104.**

*St. Louis University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS.** To investigate the molecular basis of fungal infection of immunocompromised patients using enzymological and recombinant DNA approaches on animal models. Send curriculum vitae and at least three references to: **P. E. Kolattukudy, Director, Ohio State Biotechnology Center, The Ohio State University, 1060 Carmack Road, Columbus, OH 43210. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL ASSOCIATE.** Full-time position available in the laboratory of Dr. Anil Kumar Jaiswal, which is a new addition to our Department of Pharmacology. Individual will participate in research involving the identification and cloning of transcription factors involved in the regulation of genes encoding enzymes that metabolize drugs and carcinogens. Ph.D. required; previous research experience in molecular biology preferred. Interested candidates please send résumé to: **A. J., c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

### POSTDOCTORAL POSITION

Available to study lipoprotein-mediated influences on synthesis of fibrinolytic proteins and expression of surface-localized fibrinolytic activity in cultured endothelial cell phenotypes. Ph.D. with experience in protein/receptor biochemistry, tissue culture and/or molecular biology required. Send curriculum vitae and names of three references to: **Francois M. Booyse, Ph.D., Division of Cardiovascular Disease, University of Alabama at Birmingham (UAB) PAB 265, UAB Station, Birmingham, AL 35294-4400. UAB is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION—ANTIONCOGENE RESEARCH.** Position available immediately for highly motivated scientist seeking training experience which affords a great deal of scientific independence. Studies on the biochemical and molecular functions of the P53 antioncogene. Interested individuals should forward curriculum vitae and three letters of reference to: **James L. Sherley, M.D., Ph.D., c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available for a biochemist or organic chemist to join an NIH-funded program on platelet aggregation inhibitors. Must have experience in one or more of the following: asymmetric synthesis, in vitro and in vivo evaluations and molecular mechanism studies. Receptor binding techniques will be a plus. Send curriculum vitae to: **Dr. R. Gollamudi, Professor of Medicinal Chemistry, University of Tennessee, Memphis, The Health Science Center, Memphis, TN 38163. The University of Tennessee, Memphis is an Equal Employment Opportunity/Affirmative Action Title IX/Section 504/ADA Employer.**

### POSTDOCTORAL FELLOWSHIP

Available immediately to study mammalian cytosine DNA methyltransferase: characterization of DNA and protein elements critical for specificity; identification of cellular components which modify the enzyme's function. Experience in protein isolation, cell culture, enzyme kinetics or protein chemistry desirable. NIH funded. Open until filled. For further information contact: **Dr. Norbert Reich, Department of Chemistry, University of California, Santa Barbara (UCSB), CA 93106. Telephone: 805-893-8368; FAX: 805-893-4120. UCSB is an Equal Opportunity/Affirmative Action Employer. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (IRCA 1986).**

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available for research on mapping the antigenic and functional domains of human cytomegalovirus glycoproteins. Work includes gene cloning, transient expression in eukaryotic cells, construction of mutant viruses and transformed cell lines. Preference will be given to applicants with a background in molecular biology. Interested candidates should submit curriculum vitae and three letters of reference to: **Dr. Lenore Pereira, School of Dentistry, Division of Oral Biology, University of California San Francisco, HSW-604, San Francisco, CA 94143. Equal Opportunity/Affirmative Action.**

### MINORITY MEDICAL FACULTY DEVELOPMENT RESEARCH FELLOWSHIPS

The Minority Medical Faculty Development Program, sponsored by the Robert Wood Johnson Foundation, has up to 12 new positions available beginning in 1993. The program offers postdoctoral research fellowships to physicians from underrepresented minority groups as defined by the Association of American Medical Colleges. These individuals must have demonstrated superior academic and clinical skills and have committed themselves to careers in academic medicine with special interest in either biomedical research, clinical investigation or health services research. The fellowship supports four consecutive years of research. Each fellow selected will receive an annual stipend of up to \$50,000.00 with 5% increases per year and a fixed \$25,000.00 annual grant toward support of research activities.

In addition to the above stated eligibility requirements, applicants must be U.S. citizens and must have completed their formal clinical training by the projected time of entry into the program.

Applications for appointment in 1993 must be submitted by 30 April 1992. Interviews with selected applicants will be carried out in July 1992, and successful candidates will be notified in November 1992.

For further information and application materials, contact:

**Harold Amos, Ph.D., Program Director or  
Charlotte Litt, Ph.D., Deputy Director  
Minority Medical Faculty Development Program  
Harvard Medical School  
P.O. Box 446  
Brookline Village, MA 02147  
Telephone: 617-732-1947**

### THE MORRISON MEMORIAL POSTDOCTORAL FELLOWSHIP

The Department of Biochemistry, St. Jude Children's Research Hospital (SJCRH), is enlarging its research efforts in the area of the molecular and cellular biology of signal transduction. As part of this expansion, the Board of Governors has established a memorial fellowship in honor of Dr. Martin Morrison, the founding chairman of the department. The research programs within the department are well equipped and offer recent Ph.D. or M.D. graduates the opportunity to participate in energetic multidisciplinary groups dealing with a range of basic and clinically oriented research. SJCRH offers a competitive stipend and annual review for reappointment. Current research programs within the department include:

- W. Y. Cheung: Regulatory properties and biological functions of calmodulin,  $Ca^{2+}$ -regulated enzymes and other  $Ca^{2+}$ -binding proteins.
- J. Cleveland: Transcriptional regulatory factors which control myeloid cell cycle progression.
- J. N. Ihle: Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation
- S. Jackowski: Cell cycle regulation of membrane phospholipid biosynthesis.
- C. Rock: Role of phospholipid-derived second messengers in growth factor action.

Applicants should submit a brief statement of their research interests, curriculum vitae, reprints, and the names of three references to:

**The Morrison Postdoctoral Fellowship  
Department of Biochemistry  
St. Jude Children's Research Hospital  
332 North Lauderdale  
Memphis, TN 38101**

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## POSITIONS OPEN

### MOLECULAR EYE DISEASE RESEARCH BASCOM PALMER EYE INSTITUTE UNIVERSITY OF MIAMI

**RESEARCH FELLOW/ASSOCIATE** position in molecular genetics of hereditary eye diseases—retinitis pigmentosa, gyrate atrophy, and retinoblastoma. State-of-the-art "forward"/"reverse" genetic approaches to isolating and studying genes—gene cloning/mapping, mutational/transgenic analysis. Ph.D. and/or M.D. required; experience in molecular biology preferred. Send curriculum vitae, names, addresses, and telephone numbers of three references to: **George Inana, M.D., Ph.D., Director, Laboratory of Molecular Genetics, Department of Ophthalmology, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101. An Equal Opportunity Employer.**

### HUDSON RIVER FOUNDATION FELLOWSHIPS

**DOCTORAL FELLOWSHIPS** sponsor doctoral research on topics of environmental, ecological, and public health concern to the Hudson River estuary. The fellowships provide a stipend of \$11,000, plus \$1,000 toward supplies. Applications must be received by 15 March 1992.

**TIBOR T. POLGAR FELLOWSHIPS** support undergraduate and graduate research projects on the ecology (chemical, physical, and biological), and public policy aspects of the Hudson River estuary. Summer salaries of \$3500 and limited research funds will be provided. Sponsoring professors will receive a \$250 stipend. Proposals must be submitted by 1 March 1992.

Information on how to apply for these fellowships may be obtained by requesting the Foundation's Annual Program Plan from: **The Hudson River Foundation, 40 West 20th Street, Ninth Floor, New York, NY 10011; telephone: 212-924-8290.**

### POSTDOCTORAL FELLOW

Position to develop new physical methodologies for genomic analysis using novel spectroscopic/hydrodynamic approaches and single molecules. Applicant should have extensive spectroscopic/hands-on instrumentation experience. Previous biological experience a plus. Send curriculum vitae and names of three references to: **Dr. David C. Schwartz, New York University, Department of Chemistry, 31 Washington Place, New York, NY 10003. Equal Opportunity Employer.**

### INSTITUTE OF ECOSYSTEM STUDIES CARY POSTDOCTORAL FELLOWSHIP IN ECOLOGY

The Institute of Ecosystem Studies announces the availability of the Cary Postdoctoral Fellowship in Ecology. The fellow will interact with a diverse group of ecologists and ecosystem scientists. The fellowship is for one year and may be renewed for a second year. Applicants must have a Ph.D. Submit a statement of research interests, curriculum vitae, and the names of three references to: **Dr. Alan R. Berkowitz, Cary Postdoctoral Fellowship, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545. Deadline: 21 February 1992.**

*Equal Opportunity Employer.*

**RESEARCH FELLOW** to conduct independent research on photosensory transduction in biological membranes. Investigation of the coupling of retinal photoisomerization to protein conformational changes of the phototaxis receptor sensory rhodopsin I (SR-I). Investigate effects of residue replacements in SR-I with recombinant DNA methods by time-resolved spectroscopy in vitro and computerized cell tracking and motion analysis in vivo. Ph.D. degree in chemistry required with evidence of publications in quality refereed journals in the area of spectroscopic studies of photoactive proteins in biological membranes. Salary: \$21,000 annual salary, 40 hours per week. Apply at the **Texas Employment Commission, Houston, Texas** or send résumé to **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #6521457.**

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## VIROGENETICS CORPORATION RESEARCH SCIENTIST

Virogenetics Corporation, a joint venture between Pasteur Merieux Serums & Vaccins (PMS&V) and the New York State Department of Health (NYSDOH), was established in 1986 to develop the vaccinia virus technology initially developed at the NYSDOH. The technology has now matured to the point where three highly attenuated vectors are available for delivering extrinsic immunogens of heterologous pathogens. A poultry vaccine vector, TROVAC, has been derived from a highly attenuated vaccine strain of fowlpox virus and has demonstrated efficacy as a recombinant vaccine vector for pathogens of poultry. A highly attenuated strain, NYVAC, has been derived by genetic engineering of an existing vaccinia virus vaccine strain, NYVAC has been demonstrated to be superior to existing vaccine strains in a number of safety studies yet remains a potent vector in inducing protective immune responses against heterologous human and veterinary pathogens. ALVAC is derived from a vaccine strain of canarypox virus. ALVAC is restricted for replication to avian species, yet as a vector has been demonstrated to provide potent immunization properties against heterologous pathogens in both animals and man. The basic vaccinia technology has therefore now been matured and extended to other members of the poxvirus family. Virogenetics stands poised to make a significant contribution to both veterinary and human health using recombinant live vector vaccine technologies.

We solicit applications from scientists with 4-5 years of postdoctoral experience in the areas of virology or parasitology, with strong backgrounds in molecular biology, to join Virogenetics in the pursuit of the enhancement of public health.

Excellent benefit package and salary commensurate with experience are available. Resumes should be sent to **Personnel Office, Virogenetics Corp., 465 Jordan Road, Rensselaer Technology Park, Troy, NY 12180. EOE.**



## GENETICISTS/MOLECULAR BIOLOGISTS

### Applications Invited For Geneticists/Molecular Biologists As Scientific Administrators (2-Year Or Permanent Appointment)

The National Center for Human Genome Research seeks outstanding candidates with a Ph.D./M.D. or equivalent and research experience in human genetics, molecular biology or genetics to work with the Human Genome Program at NIH in Bethesda, Maryland. Postdoctoral experience is required and significant scientific experience beyond the postdoctoral level is desirable. The duties of the positions will include administration of a portfolio of research, center and/or training grants relating to research in genomics, maintaining a thorough knowledge in the subject area and advising the Center Director on policy development regarding genome issues. Candidates will be considered for temporary two-year appointments or permanent employment. The salary range is \$37,294 to \$68,129, or may be negotiable commensurate with qualifications and experience. Interested candidates should submit curriculum vitae and names of three references to:

**Dr. Jane Peterson  
National Institutes of Health  
Building 38A, Room 612  
9000 Rockville Pike  
Bethesda, MD 20892**



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## PRODUCT SCIENCE GROUP LEADER

At Unilever Research, U.S., our commitment to skin care research is evident in our extraordinary rate of commercial success. Backed by an R&D budget of over \$750 million, our highly-qualified staff continues to innovate in this key market.

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These challenges require a Ph.D. along with 7+ years' research experience in colloid chemistry, interfacial or material science. A proven record of innovative research involving studies of complex systems rather than simple models is also essential. Experience working in a broad, multi-disciplinary environment along with the ability to successfully manage technical interfaces is highly desirable.

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## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE.** Preuss Laboratory for Brain Tumor Research, Duke University Medical Center, seeks postdoctoral fellow with background in molecular biology. Candidates must have Ph.D. in biological sciences and interest in tumor and molecular biology and/or immunology. Laboratory studies include suppressor genes, generation and humanization of murine monoclonal antibodies, genes related to differentiation in tumors and to mutant EGF receptor. Competitive salary related to qualifications and exposure. Send curriculum vitae and three letters of reference to: **Darell D. Bigner, M.D., Ph.D., Edwin L. Jr., and Lucille Finch Jones Cancer Research Professor of Pathology, Duke University Medical Center, Box 3156, Durham, NC 27710. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL RESEARCH ASSOCIATE/WOUND HEALING.** Studies involve the interrelationship between growth factors, aging, and connective tissue metabolism during wound repair in animal models. Application of gene therapy techniques makes experience in cellular and molecular biology critical to the analysis of these processes. Send curriculum vitae and three references to: **Jeffrey M. Davidson, Ph.D., Department of Pathology, Vanderbilt University School of Medicine, Nashville, TN 37232-2561. FAX: 615-327-5393.**



**Agricultural Research Service  
United States Department of Agriculture**

**MICROBIOLOGIST (RESEARCH ASSOCIATE), GS-0403-11/12.** Dairy Experiment Station, Agricultural Research Service, U.S. Department of Agriculture, Knoxville, Tennessee. Incumbent will be located at the University of Tennessee and interact with a team of scientists in the Bovine Mastitis Research Program examining genotypic and phenotypic characteristics of *Streptococcus uberis* and their relevance to immunity to mastitis in dairy cows. Veterinary microbiology or immunology with a background or interest in bovine mastitis research is desirable. A Ph.D. is required. Salary: \$31,116 to \$37,294 per annum based on qualifications and experience. For further information, contact **Dr. R. H. Miller on 301-344-2330**. For application procedures, contact **Darlene Fowler, 301-344-3377**. Refer to: **Announcement Number RA-1-043**. Position is open until filled. *USDA is an Affirmative Action/Equal Employment Opportunity Employer.*

### RESEARCH ASSOCIATE POSITION IN PHARMACOLOGY

Applications are invited for the position of research associate. Applicants must have an M.D., Ph.D., or M.D./Ph.D. degree with 2 to 5 years of postdoctoral experience in pharmacologic and toxicologic research. Primary responsibility will be to conduct research on specific drug metabolizing enzymes, including purification, characterization and molecular studies. Salary commensurate with qualifications and experience. Send curriculum vitae to: **Dr. Robert B. Diasio, Professor and Chairman, Department of Pharmacology, University of Alabama at Birmingham (UAB), UAB Station, Box 600, Birmingham, AL 35294. UAB is an Equal Opportunity/Affirmative Action Employer.**

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## POSITIONS OPEN

National Institutes of Health, **POSTDOCTORAL RESEARCH POSITION** available for M.D. or Ph.D. with experience in biochemistry, molecular biology, or cell physiology. Excellent opportunity to study osmotic regulation and/or regulation of epithelial transport in the Laboratory of Kidney and Electrolyte Metabolism. Candidate must have less than 3 years of research training beyond the doctoral degree. *U.S. citizenship is not required.* Send curriculum vitae and names of three references to: **Dr. Maurice Burg, Building 10, Room 6N307, CODE: 3187, Bethesda, MD 20892. NIH is an Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH POSITION.** Recent Ph.D. fellow in molecular biology or biochemistry. Projects may include study of transcriptional regulation of the rat IGF I gene and in particular, regulation by Platelet-Derived Growth Factor (PDGF) and angiotensin II. Additionally, the applicant may be involved in the study of gene expression of IGF I, its receptor and its binding protein in a model of balloon-injury in the rat. The work will also include developing monoclonal antibodies against rat IGF I. Techniques include: use of a reporter gene for study of IGF I promoter function; characterization of DNA-binding proteins by mobility shift assays and DNase I footprint analysis; Use of solution-hybridization assays and in situ hybridization to study IGF I gene expression in vitro and in vivo. Development of monoclonal anti-IGF I and anti-IGF I Receptor antibodies to study their effects in vitro and in vivo. Send curriculum vitae to: **Debbie Jernigan-HRC, Emory University DOM, 1364 Clifton Road, Suite F410, Atlanta, GA 30322. Equal Opportunity/Affirmative Action Employer.**

**RESEARCH ASSOCIATE** for university in central Ohio. Conducts research involving estimation of neurotransmitters, neuropeptides and enzymes in animals and in cell cultures using pharmacological, biochemical and molecular biology techniques; handles pre- and post-operative animals, primary cultures and plasmids; transforms bacteria with plasmids, isolate plasmid and to use restriction enzymes; DNA and RNA hybridization of cellular DNA and RNA with specific radiolabeled genes and detection by autoradiography and laser densitometry; synaptosomal membrane preparation and enzyme kinetics and receptor binding assays; in vitro transcription and expression of different genes; make detailed observations, analyze data, interpret results and write grant proposals and publications for scientific journals; supervise and train laboratory assistants. No experience required in the duties described but applicants will qualify with the following: Ph.D. in pharmacology or biochemistry and 2 years of experience in molecular biology, radioimmunoassay and neurodegenerative diseases in experimental animals; DNA and RNA isolation; radiolabeling, hybridization including solution hybridization; use of high-performance liquid chromatography, ultracentrifuge, cell harvester, gel electrophoresis and cell culture techniques. Forty hours per week, 8:00 a.m. to 5:00 p.m., Monday to Friday; salary: \$23,136 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **G. Maugans, JO #1260343, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

**RESEARCH ASSOCIATE** for university in central Ohio. Performs research in manufacturing of polymeric composites at resin transfer molding (RTM) area; develops computer program and studies the fluid mechanics and heat transfer to the manufacturing processes in both macro- and micromechanics using analytical method; attends scientific meetings and conferences; prepares research proposals and technical publications; advises graduate research associates. No experience required in the duties described but applicants will qualify with the following: Ph.D. in mechanical or chemical engineering and 2 years of experience in fluid mechanics, heat transfer and computer simulation of fluid flow; of the 2 years, at least 6 months of experience in flow simulation of manufacturing of polymeric composites at RTM area by using control volume finite element method, IDEAS (integrated design engineering analysis software), VAX and CRAY computers; experience may be gained concurrent with degree. Forty hours per week, 8:00 a.m. to 5:00 p.m. Monday to Friday; \$33,600 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumés in duplicate (no calls) to: **G. Maugans, JO #1260337, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE (DIAGNOSTIC VIROLOGY).** Research in development of diagnostic kits for virus diseases. (DOT-immunobinding assay). Virus isolation, identification of isolates, cell cultures, virus inoculation/observation, selection of cell lines that will support optimal growth of virus, virus cultivation, assay of viruses, etc. Need bachelor's in health science, 2 years of experience in health sciences, 1 year of research experience in diagnostic virology. Salary: \$384.61 per week. Apply at the: **Texas Employment Commission, San Antonio, Texas, or send résumé to: The Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #6449011. Ad paid by an Equal Opportunity Employer.**

**RESEARCH ASSOCIATE POSITION,** immediately available. Join a team researching breast cancer. Ph.D. and experience in molecular biology is required. Salary is competitive and commensurate with experience. Send curriculum vitae and references to: **Dr. Beatriz G. T. Pogo, Department of Neoplastic Diseases, Box 1131, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. An Equal Opportunity Employer.**

### RESEARCH ASSOCIATE

The Division of Bone and Mineral Metabolism, Medical University of South Carolina and Charleston VA Medical Center, seeks applicants with a Ph.D. and postdoctoral training in cell and molecular biology for a tenure-track position of research associate. The successful candidate is expected to join a well-funded laboratory at the VA Medical Center and collaborating scientists at the Medical University to investigate functions of osteoblasts and osteoclasts using modern biochemical techniques and to develop a strong research program. Application for an academic appointment in a basic science department at the Medical University is strongly encouraged. Send applications with curriculum vitae, list of publications, one-page summary of past accomplishments, and one-page plan of future research and have three letters of recommendation sent to: **Dr. Norman Bell, VA Medical Center, 109 Bee Street, Charleston, SC 29401-5799. The Medical University of South Carolina is an Affirmative Action/Equal Opportunity Employer.**

**BURROUGHS WELLCOME SCIENTIST.** To study the regulation of genes coding for heme oxygenase (HSP 32) and biliverdin reductase isozymes. Expertise in molecular biology techniques as applies to eukaryotic cells is required. Send curriculum vitae to: **Dr. M. D. Maines, Department of Biophysics, University of Rochester (UR) School of Medicine, Box BPHYS, Rochester, NY 14642. UR is an Equal Opportunity/Affirmative Action Employer.**

## ATTENTION SCIENCE ADVERTISERS \$40 SPECIAL

Place your classified ad in any January 1992 or February 1992 issue of *SCIENCE* and we'll give you double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Annual Meeting** for only \$40 more. That's less than the cost of one additional line.

Hurry—place your ads now! **The Employment Exchange** will take place at the **AAAS Annual Meeting, 7 to 10 February 1992**, at the Hyatt Regency Hotel in Chicago, Illinois. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

When you place your classified ad in *SCIENCE*, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest.

For more information on how you can interview candidates on-site contact **Jacquelyn Roberts at (202) 326-6737.**

National Institutes of Health  
**STAFF FELLOW**  
(General Range \$24,000 to \$46,861)

Starting date: Between December 1991 and May 1992

A position is available for a Staff Fellow in the Laboratory of Biochemical Risk Analysis, Division of Biometry and Risk Assessment of the National Institute of Environmental Health Sciences to study genetic polymorphisms of cytochrome P450 in humans using molecular biology techniques. Studies will involve use of cDNA expression systems, site-directed mutagenesis, construction of cDNA and gene libraries, sequencing, hybridization studies, and PCR analysis. Applicants should have a Ph.D. or equivalent degree in molecular biology, biochemistry, pharmacology, or microbiology and demonstrated ability to carry out independent research. Previous experience in molecular biology techniques including use of cDNA expression systems such as yeast, subcloning, and/or site-directed mutagenesis highly desirable. Candidates with up to seven years of postdoctoral research experience will be considered. For more information, contact Dr. Joyce Goldstein at 919-541-4495. Applicants should send curriculum vitae, names of three references (with telephone numbers) to the following address by *January 27, 1992*.

**Ms. Carole Gregory (Code: HNV44)**  
**NIEHS Personnel Office**  
**P. O. Box 12233**  
**Research Triangle Park, NC 27709**

NIH is an Equal Opportunity Employer

**DIRECTOR,  
MOLECULAR  
PATHOBIOLOGY**

Jefferson Medical College of Thomas Jefferson University invites applications for the Warren Lang Professorship of Pathology and Director of the Division of Molecular Pathobiology in the Department of Pathology and Cell Biology. This division is concerned with the application of molecular biology to research in cancer, genetics, metabolic disorders, and related conditions. The Lang Professor will be expected to recruit several tenure track faculty members to be supported by the department. The division occupies 6,000 sq. ft. of newly remodeled and fully equipped research laboratories, and interfaces with the Jefferson Cancer Institute (Carlo Croce, Director) and the Jefferson Institute of Molecular Medicine (Darwin Prockop, Director).

Applicants should have a proven record of accomplishments in research, demonstrated ability to obtain extramural funding, and appropriate academic experience. Interested parties should send their curriculum vitae to any member of the search committee: **Emanuel Rubin, MD; Renato Baserga, MD; Carlo Croce, MD; Thomas Jefferson University, 11th & Walnut Streets, Philadelphia, PA 19107.** Equal Opportunity Employer.



Thomas  
Jefferson  
University

**TOXICOLOGIST  
(Biomaterials)**

Medtronic, Inc. is the recognized leader in the design, manufacture and marketing of implantable, life sustaining biomedical products. We have an immediate opening for an experienced Toxicologist. This position will manage biocompatibility testing of biomaterials used in implantable medical devices, will supervise a group of technicians and will direct and perform research to develop biocompatibility test systems.

Qualified candidates must have a graduate degree in toxicology or biomaterials science and 3 years experience in biomaterials toxicology and/or biocompatibility testing.

Medtronic, Inc. offers a highly competitive compensation and benefit package plus the opportunity for personal recognition in an environment where new ideas and initiative are encouraged. Please send resume in confidence to: **Colleen Stephens, Medtronic, Inc., Promeon Division, 6700 Shingle Creek Pkwy, Brooklyn Center, MN 55430.** Equal Opportunity Employer. No Agencies Please.

**Medtronic**



**CHAIRPERSON  
DEPARTMENT OF NUTRITION AND  
FOOD SCIENCE  
WAYNE STATE UNIVERSITY**

The Department of Nutrition and Food Science, in the Wayne State University College of Liberal Arts, is seeking a Chairperson to lead its rapidly expanding undergraduate and graduate programs in Nutrition, Food Science, and Dietetics. Wayne State University, located in the Cultural Center of Detroit, Michigan, is an urban, comprehensive, research university serving 30,000 students. The Department of Nutrition and Food Science has 8 faculty and enrolls 100 undergraduate and 65 graduate (Ph.D. and Masters) majors. The Department, which moved into completely renovated research and teaching facilities in October, 1991, has ties to the WSU School of Medicine and the Institute of Chemical Toxicology as well as to other departments in the College of Liberal Arts.

Qualifications for the Chairperson's position include: an earned doctorate, administrative and teaching experience, and an established research program. Applicants should send a letter of application, curriculum vitae, and the names of at least three references to:

**Dr. Richard Lintvedt, Chair  
Nutrition and Food Science Selection  
Advisory Committee  
123 Chemistry  
Wayne State University  
Detroit, Michigan 48202**

Salary and rank are negotiable. The position is available immediately. For best consideration, please respond before January 30, 1992.

Wayne State University is an Affirmative Action/Equal Opportunity Employer.

**Biochemists,  
Biochemical  
Engineers**

Merck Sharp & Dohme Research Laboratories is currently offering excellent career opportunities for B.S., M.S., Ph.D. biochemists and biochemical engineers in the Biochemical Process R&D Department in West Point, PA.

These individuals will be responsible for laboratory and pilot scale purification of novel biopolymers, vaccines, recombinant proteins or monoclonal antibodies. Experience with chromatography and other purification techniques is highly desirable as well as familiarity with analytical techniques and instrumentation. In addition to a thorough scientific background, these positions require strong writing, communication and team skills.

Excellent salary and benefit programs accompany these positions at our facilities located 25 miles northwest of Philadelphia, PA.

Please send C.V. with cover letter to: **Personnel Manager - Ad #B-46, Research Personnel, WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.**

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**Merck & Co., Inc.**

## Scientist/Senior Scientist

Genentech, Inc., a leader in the biotechnology industry and located in South San Francisco, has an immediate opportunity for a Scientist/Senior Scientist.

You will develop and scale-up recovery processes for the purification of therapeutic proteins for use in the clinic and for market-entry. Position may also entail the production of peptides or proteins for use in research as well as the development of new large-scale techniques for the purification of proteins.

Requires a PhD or equivalent in Protein Biochemistry or a related area and at least two years' experience in industry or academia. An extensive background in protein characterization and large-scale protein purification is desirable.

Genentech offers an extensive benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities and free health club membership. For immediate consideration, please send your resume to Genentech, Inc., Dept. LPMW, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity.

**Genentech, Inc.**

## Associate Behavioral Scientist Pharmacology

*From a single laboratory bench in 1933, Schering-Plough's on-going dedication to the development of new life-enhancing medications has made us one of the world's most successful pharmaceutical organizations. Today, our renowned staff of research scientists create medications with sales of over \$3 billion a year.*

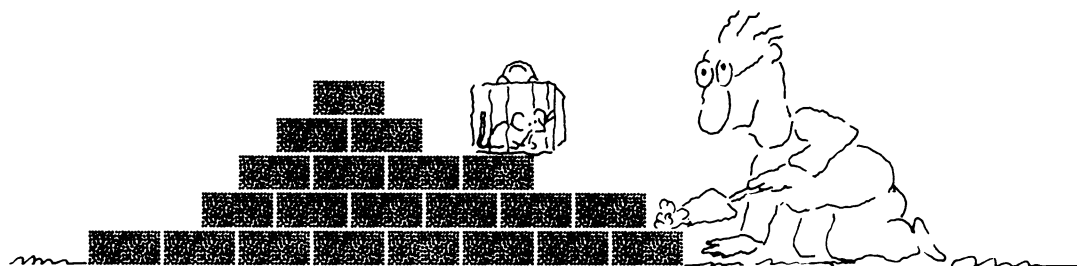
As an integral member of our pharmacology team, you will assume responsibility for the investigation of the effects of specific drugs on cognitive functions. To qualify, you must have a B.S. degree in Biology or Psychology with 2-4 years' experience or an M.S. degree with up to 2 years' experience. Ideally, you should have a research background in operant conditioning procedures. Demonstrated skills in histology and in computer programing would be a plus.

We offer a highly competitive salary, superior benefits, and all the challenge and growth potential an industry leader can offer. Please forward your resume to George Czuba, Human Resources Dept., Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

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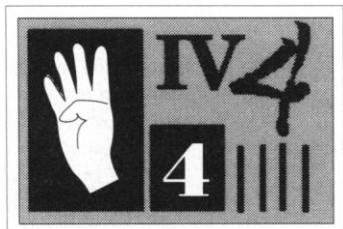
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## THE SCIENCE RECRUITMENT "FOUR-DAY CLOSE"

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## EXCEPTIONAL OPPORTUNITIES IN ANALYTICAL CHEMISTRY

Join Sterling Winthrop and become part of our team dedicated to the enhancement of scientific discovery. Sterling Winthrop Pharmaceuticals Research Division is the worldwide pharmaceutical research and development organization of Sterling Winthrop Inc.



### PRINCIPAL RESEARCH INVESTIGATORS / Ph.D.

- Several positions are available for highly skilled scientists to lead a team of analysts in the development and application of chromatographic procedures for the examination of drug substances and drug products, and to participate as a member of interdisciplinary project teams. Candidates should possess a Ph.D. in Analytical Chemistry (or a closely related chemical science) and at least 4 years of managerial experience in the pharmaceutical industry. A strong background in physical measurements chromatography as well as familiarity with computer-based acquisition is highly desirable. (Ref: RS-88-90)

- An additional position is available for a Principal Research Investigator to supervise laboratory automation and equipment interfacing programs and to develop/apply new technologies to pharmaceutical analyses. Candidates should possess a Ph.D. in Chemistry along with a minimum of 4 years post-doctoral experience. Knowledge and application of analytical techniques and experience in automation, data acquisition and information management are required. (Ref: RS-43-91)

### RESEARCH INVESTIGATORS / Ph.D.

Apply your skills in analytical methods development and employ a variety of instrumental and chromatographic techniques to the design, development and implementation of procedures to qualify drug substances and drug products. Candidates should possess a Ph.D. in Analytical Chemistry (or an equivalent chemical discipline) along with 0-2 years experience in a laboratory environment. (Ref: RS-67-91)

### RESEARCH SCIENTISTS / B.S. / M.S.

Practice analytical chemistry in the pharmaceutical industry. Develop methods, mainly chromatographic, for the analysis of new chemical entities and new product dosage forms. Candidates should possess a B.S. degree in Chemistry along with a minimum of 2 years related experience or M.S. degree. Experience in chromatography and strong writing skills required. (Ref: RS-66-91)

At Sterling Winthrop, you'll enjoy a highly competitive salary and benefits package, including an attractive relocation program and outstanding career growth opportunities. Additionally, our Rensselaer, NY facility will be relocating to a new state-of-the-art facility in Upper Providence Township, PA in approximately 1993. We invite you to share in the opportunities now and in the future. To be considered for these important opportunities, please send your resume (indicating Reference #) to:



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Pharmaceuticals  
Research Division

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## MICROBIOLOGIST STEVENS INSTITUTE OF TECHNOLOGY

The Department of Chemistry and Chemical Engineering invites applications for a tenure-track faculty appointment beginning in 1992. Minimum qualifications: doctorate in microbiology with expertise in molecular biology, immunology or cell biology; research publications and postdoctoral experience, interest in teaching and developing undergraduate and graduate courses. The successful candidate is expected to play an active role in further developing the present "Chemical Biology" track in the Department for a growing number of undergraduates in the "Accelerated Premedicine and Pre-dentistry" Programs as well as the traditional undergraduate chemistry and biochemistry programs (ACS certified). Active research program involving graduate (M.S., Ph.D.) and undergraduate participation expected. Research collaboration with organic and analytical chemists and chemical and environmental engineers encouraged. Excellence in teaching and research emphasized.

Women and minorities are encouraged to apply. Please send curriculum vitae, statement of teaching and research interests, and three letters of recommendation to Prof. A. K. Bose, Chair, Search Committee, Department of Chemistry and Chemical Engineering, Stevens Institute of Technology, Castle Point on the Hudson, Hoboken, New Jersey 07030. Telephone: (201) 216-5528; Fax: (201) 216-8240.

*An Equal Opportunity Employer.*

## BE A SCIENCE JOURNALIST FOR A SUMMER!

The American Association for the Advancement of Science (AAAS) invites students in the natural and social sciences and engineering to apply for the 1992 Mass Media Science and Engineering Fellows Program.

Fellows work as reporters, researchers and production assistants for 10 weeks during the summer at newspapers, magazines, and radio and television stations nationwide. A weekly \$400 stipend is awarded plus travel expenses paid. For information and application write:

**Mass Media Science and  
Engineering Fellows Program  
AAAS  
1333 H Street, NW  
Washington, DC 20005**

**Application deadline:  
January 15, 1992**

## POSITIONS OPEN

Two **ASSOCIATE RESEARCH SCIENTIST** positions available for research on cellular and molecular mechanisms of development in the nervous system of the medicinal leech. One position, available immediately, to study the structure and function of leech homeobox genes, must have experience in the construction and use of cDNA and cosmid libraries, in situ hybridization, protein expression, raising antibodies and immunohistochemistry. Second position, available summer 1992, to study growth cone interactions, requires experience in contemporary electrophysiological and neuroanatomical techniques, and calcium imaging. Ph.D. and postdoctoral experience required. Salary commensurate with experience. Send curriculum vitae, copies of publications, and names of references to: **Professor E. R. Macagno, Department of Biological Sciences, Columbia University, New York, NY 10027. An Affirmative Action/Equal Opportunity Employer.**

**AQUATIC RESEARCH ECOLOGIST.** The National Park Service, Indiana Dunes National Lakeshore, Porter, Indiana, is seeking applications for the position of research ecologist (water). The position involves responsibility for investigations in own area of expertise (water quality, ecotoxicology, community or ecosystem research is preferred). The individual will also prepare research proposals, administer research contracts and provide oversight for the park's water quality monitoring program. Must have earned a Ph.D. or equivalent combination of professional experience and graduate education. *Must be a United States citizen.* The position will be filled at the GS-12 level; salary range \$38,860 to \$50,517 per annum depending upon qualifications. *The National Park Service is an Equal Opportunity/Affirmative Action Employer.* Applications must be postmarked by 24 January 1992. For vacancy announcement and application instructions contact: **Dr. Richard Whitman, Chief Scientist, Research Division. Telephone: 219-926-7561.**

**ASSISTANT RESEARCH SCIENTIST.** Two postdoctoral positions available immediately for applied mathematician (specialty in population dynamics or fish-stock assessment) with emphasis in statistics. We are actively engaged in quantitative fishery management, population dynamics and related research with global orientation in tropical and temperate systems, including a large Chesapeake Bay component. Our emphasis is on developing long-term sampling programs and model development for fishery stock assessment, and on adapting expert systems technology, optimization and control theory, and systems science to fishery management settings. Inquiries with a letter of interest, curriculum vitae, relevant publications, and two references to: **Dr. J. Ault, Chesapeake Biological Laboratory, P.O. Box 38, Solomons, MD 20688. Telephone: 301-326-4281, FAX: 301-326-6987. The University of Maryland System is an Affirmative Action/Equal Opportunity Employer.**

## BASIC SCIENCES

Publisher, developing a series of ancillary basic sciences study guides for medical/dental students, is seeking qualified academics to author chapters and/or books. Interested persons please send a résumé and a nonreturnable writing sample to:

**Acquisitions Editor  
Sulzburger & Graham Publishing  
165 West 91st Street  
New York, NY 10024**

The National Park Service is seeking an **ECOLOGIST**, GS-11/12, Air Quality Division, Lakewood, Colorado, **VACANCY ANNOUNCEMENT WPO-BUL-91-128**, open from 19 November 1991 to 13 January 1992. Incumbent investigates and evaluates the effects of air pollution related stresses on aquatic and terrestrial systems and biological populations. Develops and implements research projects on effects of air pollution on park ecosystems and biological resources. Expertise in these areas is required. Starting salary: GS-11: \$31,116, GS-12: \$37,294. Government benefits available. Applicants must complete and send SF-171 to: **National Park Service, Personnel, Room 2328, P.O. Box 37127, Washington, DC 20013-7127.** For more information, contact: **Adele Singer, 202-208-5574. An Equal Opportunity Employer.**

**SCIENCE** recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

## POSITIONS OPEN

Applications are invited for various **CHEMIST** positions for the U.S. Army Dugway Proving Ground, Utah. Technical positions at both entry and senior levels for chemist are currently available. This is an opportunity for the select few who qualify to join a team of professionals involved with unique challenges in the fields of chemical defense testing and analysis to include technical transfer worldwide, and evaluation of "leading-edge-of-technology". The successful applicant will have a 4-year course of study leading to a bachelor's degree or higher from an accredited college with major study in physical sciences, life sciences or engineering, which includes 30 semester hours in chemistry with at least 1 year of professional working experience in analytical chemistry. *U.S. citizenship is required.* Salary range: GS-12, \$37,294 to \$48,481; GS-11, \$31,116 to \$40,449 and GS-09, \$25,717 to \$33,430. Contact: **Ms. Jackie Wilde, Civilian Personnel Office, Dugway Proving Ground, Dugway, UT 84022-5000, telephone: 801-831-2181, Monday to Thursday, 7:00 a.m. to 5:30 p.m. MDT** for information and application packet. *An Equal Opportunity/Affirmative Action Employer.*

## HORTICULTURIST

Provide technical assistance in design and construction of hydroponic growing and controlled environmental agriculture. Thorough knowledge in greenhouse operations and hydroponics. Demonstrated ability in managerial aspects of greenhouses and nurseries. Ph.D. in plant science, 5 years experience or 5 years in nursery, greenhouse and hydroponic operations. Annual salary \$52,000, located in Fillmore, California. Send this ad and your résumé or letter of qualifications to **Job #WS12447, P.O. Box 9560, Sacramento, CA 95832-0560**, no later than 4 January 1992.



**Agricultural  
Research  
Service**      **United States  
Department of  
Agriculture**

**PLANT PATHOLOGIST/EPIDEMIOLOGIST.** USDA-ARS Crop Protection Research Unit, Urbana, Illinois. Permanent, full-time. Develop efficient management strategies to reduce losses in soybeans from foliar diseases. Duties will include evaluating the existence and heritability of resistance in soybean to foliar pathogens for the development of more durable and effective disease resistance. Primary emphasis will be on collection of quantitative data (field, greenhouse, laboratory) on pathogen populations for analysis of epidemic development, and on evaluation of germplasm from the USDA Soybean Germplasm Collection maintained at Urbana, Illinois for disease resistance. Candidates must possess knowledge of plant pathology and genetics in order to identify epidemiological parameters which are characteristic of populations, environments, and control options. Professional experience and/or directly related education required. Ph.D. desirable. *U.S. citizenship required.* Salary commensurate with experience GS-11/12 (\$31,116 to \$48,481). For information contact: **L. M. Wax, telephone: 217-333-4424.** For application procedures and forms, **telephone: Amy Hegarty 301-344-1258; indicate ad #2N012.** Applications must be postmarked by 17 January 1992. *ARS is an Equal Opportunity Employer.*

**STAFF PROGRAMMER:** Designs, implements and maintains advanced prolog system with interfaces to DBMS, graphic, ILC, CAD/CAM and simulation. Conducts research and development of a state-of-the-art prolog interpreter and compiler for various platforms. Develops integrated programming tools to establish a comprehensive development environment for these platforms. Requires: Ph.D. in computer science and demonstrated background in the following: prior experimentation in theory and practice of logic programming, prolog implementation, WAM optimization, compiler construction, programming language semantics, software engineering; developing prolog knowledge-based systems and tools on IBM mainframe, especially CAD/CAM and simulation. Theory and practice of data- and knowledge-based management systems; computer architecture, especially S/370 and 80386. Above demonstrated by Ph.D. dissertation, research and publications. Forty hours per week; \$55,000 per year. Job and interview site: San Jose, California. Send this ad and your résumé to: **Job #TC 11409, P.O. Box 9560, Sacramento, CA 95823-0560** not later than 4 January 1992. *Equal Opportunity Employer.*

## POSITIONS OPEN

Joint faculty staff appointment, **BIOLOGICAL MASS SPECTROMETRY**, Wadsworth Center for Laboratories and Research: Health Research, Inc. seeks a **RESEARCH SCIENTIST** to establish collaborations with scientists at the center and to develop an externally fundable program of independent research. The Wadsworth Center in the New York State Health Department is charged with original investigations and research in matters affecting public health. The center's professional and technical scientific staff number more than 600. The range of scientific interests extends from virology, immunology, molecular biology, biochemistry and genetics, to toxicology, organic analytical and environmental chemistry. The center also has extensive support services including informational and computational resources, and shops capable of building special apparatus and instrumentation. Two departments of the State University of New York Graduate School of Public Health, Biomedical Sciences and Environmental Health and Toxicology, have been established within the Wadsworth Center. More than 100 graduate students and postdoctoral fellows are currently receiving training at the center. The Wadsworth Center is about to add a tandem mass spectrometer dedicated to biochemical structure determinations to its existing mass spectrometry facility. The center is searching for a recent Ph.D. graduate in biological mass spectrometry with experience in tandem mass spectrometry and protein purification and characterization. Candidates with postdoctoral experience are preferred. Appointment to a faculty position in the Graduate School of Public Health is available. Salary will be commensurate with experience and qualifications. Send résumé, a statement of research plans, and three references to: **Health Research, Inc., P.O. Box 2077, Albany, NY 12220** by 15 January 1992. *Affirmative Action/Equal Opportunity Employer.*

**SENIOR RESEARCH CHEMIST**; Apply in situ perfused rat liver and intestine-liver operations to estimate intestinal absorption and first-pass effect of a number of HIV protease inhibitors. Drug metabolism mechanism studies. Investigate stereoselective elimination of carbonic anhydrase inhibitors. Apply organ perfusion techniques involving organ isolation and drug metabolism studies. Requires Ph.D. in pharmacy 1 year experience postdoctoral researcher with extensive research and related laboratory experience involving pharmacokinetics and drug metabolism, organic perfusion techniques and drug metabolism studies including in vivo studies, experiment design and use of perfusion apparatus. Mathematical modeling and related programs including in carbonic anhydrase inhibitors. Postdoctoral experience in controlled drug reanalytical method including HPLC. Forty hours per week; \$3800 per month; résumé or curriculum vitae, to: **Philadelphia Job Bank, 444 North Third Street, 3rd Floor, Philadelphia, PA 19123, Job Order #4427909.**

### STAFF SCIENTIST/BIOPHYSICIST

Conduct independent investigations of techniques for in vivo nuclear magnetic resonance (NMR) imaging and spectroscopy at high magnetic fields, including development of theory, experiments, and instrumentations; assume responsibility for developing techniques for spectroscopic imaging using stochastic excitation and rapidly oscillating magnetic field gradients, and for high resolution imaging of flowing and static spins; publish on research accomplished; participate in preparation of grants and proposals; provide expertise and technical assistance to other investigators using the Research Medicine NMR Facility, particularly in the area of imaging, including implementation of novel NMR experiments and design of RF probes; manage the UNIX computer systems used in NMR Facility; and supervise postdoctoral fellows and graduate students working on related projects.

Qualifications: Skilled in NMR spectroscopy and imaging sufficient to conduct related independent research; expertise in spectroscopic imaging an stochastic NMR substantiated by refereed publications; proficiency in C programming, numerical methods, and knowledge of the UNIX operating systems at the system manager level; ability to design analog and digital electronic circuits. Ph.D. required in electrical engineering, bioengineering, or physics with strong emphasis on linear and nonlinear systems theory, signal processing, statistics, and nuclear magnetic resonance. Salary range \$3328 to \$6760 per month. Jobsite/interview: Berkeley, California.

Send this ad and your résumé to: **Job #DC 16339, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 11 January 1992. *Equal Opportunity Employer.*

## EAST STROUDSBURG UNIVERSITY

### ANNOUNCES FACULTY VACANCY IN BIOLOGICAL SCIENCES

**Assistant Professor**, full-time tenure track, starting August, 1992. Ph.D. required. Ethologist with broad biological background able to teach courses in Comparative Anatomy, Human Anatomy and Physiology, and Introductory Biology. Additional duties may include teaching Population Genetics. Salary Range: \$29,905.40-\$40,076.20. For consideration, please send letter of application and/or nominations, resume, transcripts, and three (3) letters of reference to:

**Dr. Richard F. Pekala,  
Department of Biological Sciences,  
East Stroudsburg University,  
East Stroudsburg, PA 18301.**

Deadline for receipt of all application materials is 1/06/92.

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## ASSISTANT PROFESSORSHIPS

Full-time, tenure-track positions are available in the Department of Tumor Biology and in the Department of Neurosurgery at The University of Texas M. D. Anderson Cancer Center in Houston for qualified applicants in the area of tumor cell biology, tumor biochemistry, tumor molecular biology or other fields related to cancer research. Particular emphasis will be in the area of cancer invasion and metastasis. Candidates should have a doctoral degree and post-doctoral experience and should demonstrate exceptional potential in research and graduate teaching. Applicants should include a curriculum vitae, names and telephone numbers of at least five references and a 1-2 page statement of current research activities and future interests to: **Prof. Garth L. Nicolson, Chairman, Department of Tumor Biology (Box 108) or Prof. Raymond E. Sawaya, Chairman, Department of Neurosurgery (Box 069), The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, TX 77030. The University of Texas is an Affirmative Action/Equal Opportunity Employer.**

## Neurogen

### Opportunities For Regulatory Affairs Professionals

**Neurogen**, a new pharmaceutical company dedicated to the discovery of novel agents for the treatment of Central Nervous System (CNS) disorders, announces immediate openings for Regulatory Affairs Professionals at our research center in Branford, Connecticut.

Neurogen is searching for Regulatory Affairs Professional to support corporate regulatory programs. These include participation in pre-clinical studies and quality assurance programs. The successful candidate(s) will interface not only with internal personnel but also with external consultants and vendors.

Candidates should possess a degree in the biological or chemical sciences and have had 3-5 years experience in the development of human therapeutics; experience with manufacturing and quality control is preferred.

Neurogen offers competitive salary commensurate with experience and a comprehensive benefits program as well as an excellent relocation package. In addition, candidates may qualify for participation in the Neurogen Incentive Stock Option Program. Neurogen is an equal opportunity employer.

Interested candidates should send resumes to: **Personnel Director (RA), Neurogen Corporation, 35 Northeast Industrial Road, Branford, CT 06405.**



**Yale** UNIVERSITY

## ECOLOGIST

Yale University's School of Forestry and Environmental Studies and Department of Biology announce a joint search for a senior Ecologist. Individuals with distinguished records of research on any natural ecosystem are encouraged to apply. We are particularly interested in research scientists whose findings and professional activities bear directly upon policy in environmental sciences.

Applications and nominations, which should include a curriculum vitae and the names and addresses of three references, should be submitted by March 1, 1992 to: **Ecologist Search, c/o Chair, Department of Biology and Dean, School of Forestry & Environmental Studies, Yale University, KBT 1010, P.O. Box 6666, New Haven, CT 06511-8112.**

*An Affirmative Action/Equal Opportunity Employer. Women and Minority Group Members are especially urged to apply.*

## POSITIONS OPEN

The National Wetlands Research Center (NWRC), Wetland Ecology Branch, U.S. Fish and Wildlife Service, has continuing opportunities for **PRINCIPAL INVESTIGATOR** research positions in **WETLAND ECOLOGY**. NWRC is interested in individuals with training and experience in: processes (hydrology, sedimentation, or nutrient cycling) important in the maintenance and development of wetlands, physiological or community ecology of submerged, emergent, or forested wetland plants, or ecosystem modeling with emphasis in physiological plant processes, hydrodynamics, or biogeochemical modeling. NWRC anticipates moving into a new 58,000-square-foot state-of-the-art research laboratory facility on the campus of the University of Southwestern Louisiana, in Lafayette, Louisiana, in 1992. Candidates will be joining an existing interdisciplinary group of scientists with research interests in: global climate change, landscape ecology, ecosystem modeling, plant population biology, community ecology, and restoration and management encompassing bottomland hardwood forest habitats, emergent wetlands, and submerged aquatic plant communities. Interested individuals should contact: **Virginia Van Sickle**, NWRC, 1010 Gause Boulevard, Slidell, LA 70458. Telephone: 318-231-5915. *This is not a vacancy announcement, these positions will be advertised at a later date. An Equal Opportunity Employer.*

## SEND US YOUR CURRICULUM VITAE BROAD BASE OF PROFESSIONALS NEEDED

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## COURSES AND TRAINING

**ANALYTICAL AND QUANTITATIVE LIGHT MICROSCOPY IN BIOLOGY, MEDICINE, AND MATERIALS SCIENCE** 14 to 22 May 1992. This course designed for professional researchers, advanced graduate students and industrial scientists and engineers, provides an in-depth examination of the theory of the microscope and application of video for exploring subtle interactions between light waves and the specimen. Limited to 22 students. Directors: Edward Salmon, University of North Carolina, Chapel Hill; Greenfield Sluder and David Wolf, Worcester Foundation for Experimental Biology. Application deadline: 16 March 1992. For further information and applications, contact: **Admissions Coordinator, Marine Biological Laboratory, Woods Hole, MA 02543**. Telephone: 508-548-3705, ext. 216.

## BIOLOGY OF DISEASE VECTORS 14 June to 27 June 1992 COLORADO STATE UNIVERSITY FORT COLLINS, COLORADO

This unique course introduces students to the biology of vectors of infectious diseases, emphasizing current molecular biological, genetic, biochemical, and physiological research. Important aspects of vector biology, including host-seeking, blood-feeding, organ structure-function, gene regulation, vector manipulation and containment, and control, will be covered and followed by in-depth analyses of selected major vector-borne diseases systems. Faculty are from the MacArthur Foundation Network on the Biology of Parasite Vectors.

The course is designed for advanced graduate students, postdoctoral fellows, and independent investigators. The course can be taken for college credit. Accommodations are located on the main campus of Colorado State University (CSU), near lecture and laboratory facilities. Vector-pathogen experimentation and demonstrations will be conducted in the containment facility of the Arthropod-borne and Infectious Diseases Laboratory (AIDL) of the CSU Foothills Campus.

Limited to 30 students. Enrollment is competitive. Financial aid (based on need) will be available. Application deadline is 28 February 1992. For information and application forms, contact: **Dr. Barry Beaty (303-491-6794 or 491-8604)**, AIDL, Foothills Campus, Colorado State University, Fort Collins, CO 80523.

## ANNOUNCEMENTS

### REQUEST FOR PRE-PROPOSALS

The U.S. Environmental Protection Agency, Environmental Research Laboratory-Corvallis, is requesting pre-proposals for cooperative agreements to develop methodology and predictive tools for conducting comparative risk assessments of the potential effects of climate change and habitat modification to: (1) a selected faunal group in North and/or South America; and (2) the composition, structure, and function of a selected landscape in the United States with emphasis on faunal habitats. Up to \$200,000 to \$250,000 per year is anticipated to fund one or more agreements in each of the above categories, for up to 3 years, commencing August 1992. On the basis of the pre-proposals, EPA will invite the submission of a limited number of proposals, which will be externally peer reviewed. *Only state and local governments, nonprofit institutions of higher education, individuals, or nonprofit research organizations eligible to receive federal assistance under the Clean Air Act as amended (section 103; 42 U.S.C. 1857B) and the Code of Federal Regulations (CFR) part 40—research and demonstration grants should submit pre-proposals.* For more information, contact: **Dr. Don Phillips**, U.S. EPA, ERL-Corvallis, 200 S.W. 35th Street, Corvallis, OR 97333. Telephone: 503-757-4485. Pre-proposals are due 31 January 1992. Invitations for full proposals will be made 1 April 1992, with the deadline for receipt 15 May 1992.

### ARE YOU INTERESTED IN SPACE BIOLOGY?

The advent of the Shuttle Program has produced a new era for space biology that offers exceptional opportunities for research. NASA is offering **RESEARCH ASSOCIATE AWARDS** to scientists to conduct **SPACE BIOLOGY RESEARCH** in a laboratory that can provide the necessary facilities and research environment. The awards vary from \$18,000 to \$22,000 based on experience and are made for a 12-month period with the possibility of renewal. Funding will begin 1 July to 1 November 1992. Eligible are postdoctoral U.S. citizens. Proposals are due 15 March 1992. For information contact: **Dr. Gerald Sonnenfeld**, Department of Microbiology and Immunology, School of Medicine, University of Louisville, Louisville, KY 40292. Telephone: 502-588-8317; FAX: 502-588-7043 or **Dr. Thora Halstead**, Life Sciences Division, NASA Headquarters, Washington, DC 20546.

## COURSES AND TRAINING

**NASA PLANETARY BIOLOGY INTERNSHIPS**. The Marine Biological Laboratory, Woods Hole, Massachusetts, invites applications from graduate students and seniors accepted to graduate programs for awards of \$2000 plus travel to participate in research at NASA centers and collaborating institutions for approximately 8 weeks. Typical intern programs include: global ecology, remote sensing, microbial ecology, biomineralization, and origin and early evolution of life. Application deadline: 1 March 1991. For information/applications, contact: **Lorraine Olendzenski**, Planetary Biology Internship, Department of Botany, University of Massachusetts, Amherst, MA 01003. email: **PBI@botany.umass.edu**. An Equal Opportunity/Affirmative Action Institution.

### MICROINJECTION TECHNIQUES IN CELL BIOLOGY 26 MAY TO 1 JUNE 1992

This research-oriented course is intended for 24 graduate students, postdoctoral researchers, and investigators who wish to learn to microinject single, living cells, including, but not limited to cultured mammalian cells, amphibian oocytes, echinoderm blastomeres, and various plant cells. In addition, many of the use latest methods of light microscopy, including the use of fluorescence and video techniques, will be used in conjunction with microinjection. The course consists of lectures, demonstrations, and extensive hands-on laboratory exercises. Director: **Robert B. Silver**, Cornell University.

Application deadline: 20 March 1992. For further information and application forms, contact:

**Florence Dwane**  
Admissions Coordinator  
Marine Biological Laboratory  
Woods Hole, MA 02543  
Telephone: 508-548-3705, Ext. 216

## POSITIONS OPEN

**MOLECULAR BIOLOGIST**. The Bard College Biology Department seeks a broadly trained biologist for a tenure-track position in molecular biology. Candidates with experience, preferably through the postdoctoral level, in molecular genetic approaches to cell biology, immunology, or developmental biology will be preferred. Candidates must have a commitment to quality undergraduate science education for both majors and nonmajors, at an institution that affords many opportunities for interaction with non-science students and faculty, but also where approximately half of the undergraduate biology majors go on to graduate programs. The successful candidate will be expected to teach two courses per semester from a list that might include molecular biology, cell biology, immunology, developmental biology, eukaryotic genetics, and a course for nonscientists which offers laboratory experience. The candidate should be prepared to conduct research and to involve students in senior project work. Please send curriculum vitae, transcripts, and a list of references to: **Tonia J. Doran**, Coordinator of Personnel Services, Bard College, Annandale-on-Hudson, NY 12504. Application deadline: 15 January 1992. Applications will be reviewed as received. *Bard College is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

### PATHOLOGIST

Needed immediately by Massachusetts teaching hospital Board-certified/eligible neuropathologist/ophthalmic pathologist with experience in diagnostic work and experimental molecular biology to participate in new research laboratory on human/simian HIV/SIV-related retinopathy. Requirements include M.D. or M.D./Ph.D., teaching experience, research and publication record. *Equal Opportunity Employer*. Send copies of résumé to: **Umberto DeGirolami, M.D.**, Department of Pathology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.

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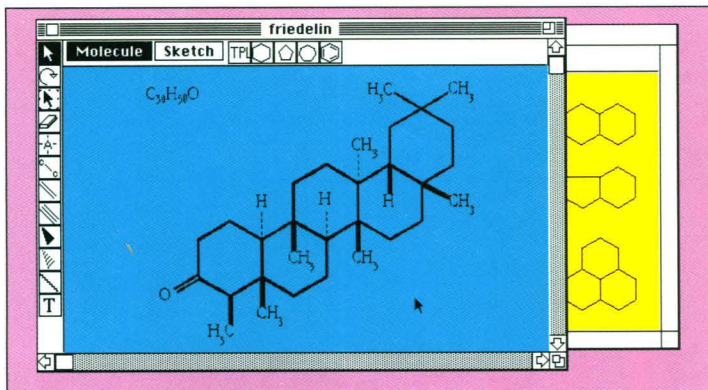
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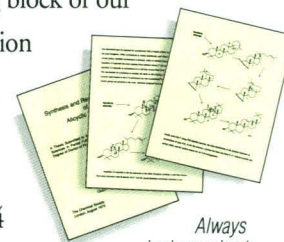
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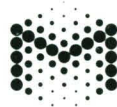
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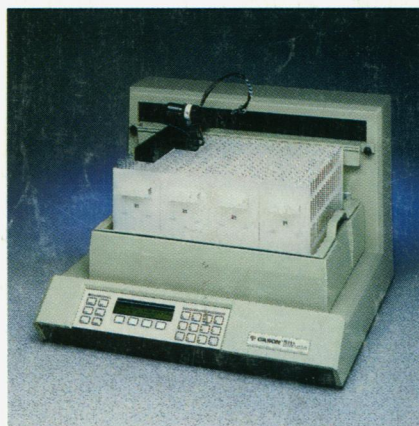
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**New FC 204 high-capacity, high-volume fraction collector.**

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