

1996-97

## AAAS FELLOWSHIPS FOR SCIENTISTS AND ENGINEERS

Applicants should be postdoctoral to midcareer scientists and engineers, from any physical, biological, or social science or any field of engineering. The programs are designed to provide each Fellow with a unique public policy learning experience; to make practical contributions to the more effective use of scientific and technical knowledge in the U.S. government; and to demonstrate the value of science and technology in solving important societal problems. All Fellows participate in a rigorous orientation on the relevant congressional and executive branch operations and foreign affairs plus a year-long seminar series on issues involving science, technology, and public policy. The new, year-long Environmental program, as well as the Congressional, Diplomacy, and Technology Policy programs, begin in September 1996, and the summer Environmental program begins in June 1996. All grant-funded programs are subject to continued support.

**All application deadlines are  
January 15, 1996.**

For additional program information and application instructions, write:  
Fellowship Programs/Directorate  
for Science and Policy Programs  
AAAS  
1333 H Street, NW,  
Washington, DC 20005  
202/326-6600 Fax: 202/289-4950  
Internet: [science\\_policy@aaas.org](mailto:science_policy@aaas.org)

### CONGRESSIONAL

#### AAAS CONGRESSIONAL SCIENCE & ENGINEERING FELLOWS PROGRAM

Fellows spend one year on Capitol Hill working with Members of Congress or congressional committees as special assistants in legislative and policy areas requiring scientific and technical input. Two fellowships will be offered, with annual stipends of \$40,000.

### TECHNOLOGY POLICY

#### AAAS-CRITICAL TECHNOLOGIES INSTITUTE SCIENCE & ENGINEERING FELLOWS PROGRAM

Fellows spend one or two years, working at the Critical Technologies Institute, providing expertise in industrial research and development, technology transfer, international competitiveness, and related issues. At least one Fellow will be selected. Applicants must have a minimum of five years industrial experience, as midlevel or senior executives. Stipends are negotiable, depending on qualifications and experience. Applicants must be U.S. citizens. An additional fellowship opportunity may be available at the White House Office of Science and Technology Policy.

### ENVIRONMENTAL

#### AAAS/EPA ENVIRONMENTAL SCIENCE & ENGINEERING FELLOWS PROGRAMS

Fellows work at the U.S. Environmental Protection Agency—either on issues relating to risk assessment, in a new one-year program, or on a variety of research projects for 10 weeks in the summer. The Fellows assist EPA in assessing the significance of long-range environmental problems. The stipend for the one-year program is \$40,000; for the summer program it is \$950 a week. Applicants must be U.S. residents. Five Fellows will be selected for the year-long program; 10 for the summer program.

### DIPLOMACY

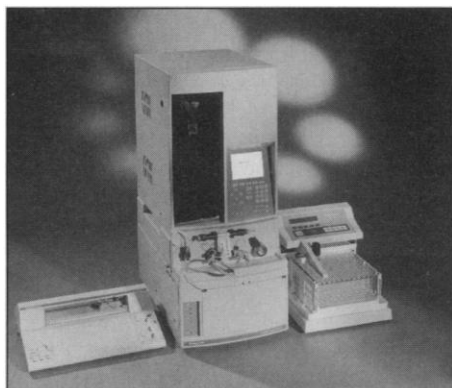
#### AAAS SCIENCE, ENGINEERING, & DIPLOMACY FELLOWS PROGRAM

Fellows work in international affairs on scientific and technical subjects for one year, either in foreign policy at the U.S. Department of State or in international development for the U.S. Agency for International Development. One Fellow will be selected at State and approximately 12 Fellows will be selected at USAID. The annual stipend varies with experience, starting at approximately \$45,000. Applicants must be U.S. citizens.

# PRODUCTS & MATERIALS

## Protein Purification Workstations

The BioSys 500 Series protein purification workstations are designed for the first stage of protein study. These systems deliver accurate buffer gradients from microliters to 30 ml per minute, with an upper pressure limit of 2500 psi. A biocompatible polyetheretherketone (PEEK) flow path ensures that there is no loss in biological activity for proteins. A unique piston seal wash on each pump allows use of very high strength aqueous buffers



without fear of premature pump failure. It offers dual pump design and operation in isocratic or gradient mode, with a choice of manual or automatic injection modes. Selection valves offer four different buffers per pump. **Beckman Instruments. Circle 137.**

## Affinity Electrophoresis System

The Affinity Co-Electrophoresis (ACE) system analyzes protein-nucleic acid binding for molecular complexes and biological interactions involving binding. A labeled nucleic acid fragment (ligand) is forced to migrate through precast lanes in a horizontal agarose gel containing a dispersion of protein molecules. Slower migration of the ligands indicates higher concentrations of binding proteins in the matrix. The ACE is capable of isolating molecules from a heterogeneous mix, or for their potential biological or therapeutic effects, based on their affinity for a target molecule. Its broad range of applications range from fractionating oligonucleotides by affin-

ity to measuring binding over a wide range of conditions rapidly and with high sensitivity. Unlike traditional gel retardation, ACE allows measurement under equilibrium conditions. **Owl Scientific. Circle 138.**

## Messenger RNA Purification Kit

The MPG Direct mRNA Purification Kit provides a fast and reliable means for isolating pure, intact mRNA. After a single round of magnetic separation, mRNA is purified directly from animal tissue, plant tissue, or cells in less than 20 min. The mRNA is captured on oligo(dT)<sub>25</sub>-bound MPG streptavidin magnetic particles and released in water with purities >1.85 as measured by A<sub>260</sub>/A<sub>280</sub>. This kit eliminates the need for total RNA isolations, phenol and chloroform extractions, and long overnight centrifugations through cesium and chloride gradients. **CPG. Circle 139.**

## High Sensitivity Immunoblotting Kit

The High Sensitivity Immunoblotting Kit makes use of horseradish peroxidase (HRP)-conjugated streptavidin-biotin complex and luminol-HRP chemiluminescence reaction with thiazol as an enhancer to allow the user to detect subpicogram levels of antigen with lower background than existing methods. The chemiluminescence reaction solutions are also available as a detection set. **Wako BioProducts. Circle 140.**

## Automated Immunostaining System

The OptiMax immunostainer is part of a complete system providing reliable, walk-away automation of immunohistochemical staining. The system includes sensitive antibodies and detection reagents, patented Antigen Retrieval pretreatment technology, and computer-controlled automation of the traditional horizontal staining technique. The in-

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.

# The RNA analysis source

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strument can be used both as a reliable workhorse for routine clinical testing and as a flexible research tool. **BioGenex. Circle 141.**

### Monoclonal Antibodies

The monoclonal antibody (mAb) PRO: 4-216 reacts with nuclear matrix proteins present in the cells of individuals with prostate cancer. **Matritech. Circle 142.**

Mouse mAbs to CD20, CD45, CD45RO, pan cytokeratin, and CEA, plus a rabbit polyclonal antibody to S-100 protein, are now available. **Silenus Laboratories. Circle 143.**

Two specific mAbs for multidrug resistance research are BRI MAB MDR-1 (Clone 6/1C) and BRI MAB TOPO II (Clone 4/2D). **BioResearch Ireland. Circle 144.**

### Stainer for Thin Sections

The EM Stain Gridstainer is for staining ultra-thin sections for transmission electron microscopy. It automates one of the major steps in the preparation of these specimens.



This dependable method can replace the tedious manual double-staining procedure that can produce poor results. Design innovations include a ceramic pump driven by a microprocessor-controlled stepping motor. **Leica. Circle 145.**

### Genomic DNA

Dynabeads DNA DIRECT is for the rapid isolation of genomic DNA ready for polymerase chain reaction from blood, bone marrow, and cultured cells with no centrifugation or hazardous chemicals. The 10-min procedure is completed in a single test tube

and produces DNA ready for downstream polymerase chain reaction amplifications. **Dynal. Circle 146.**

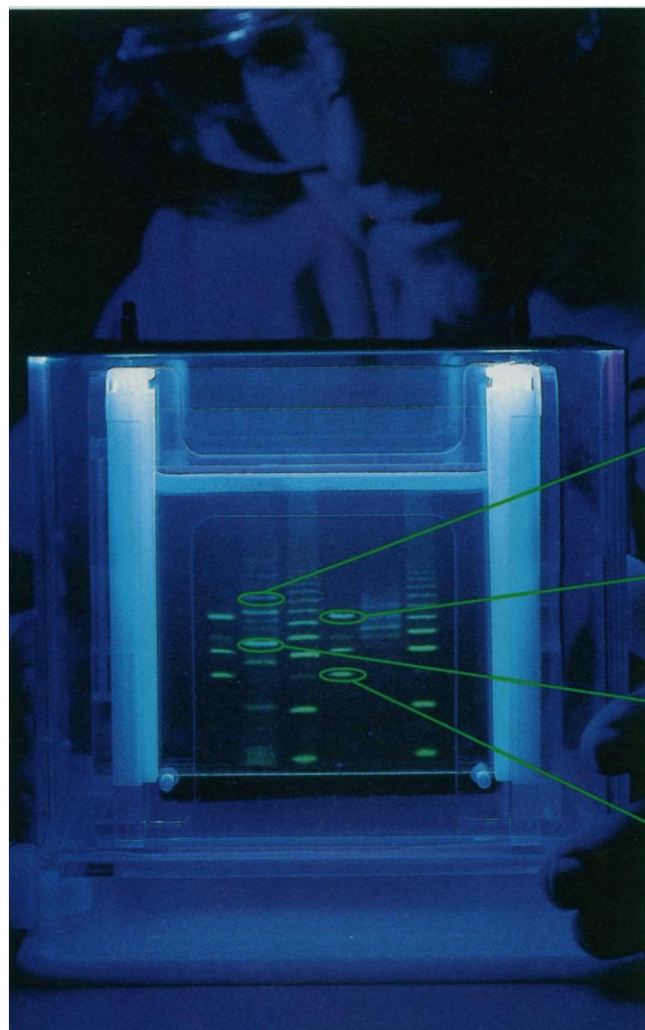
### Literature

*A Practical Guide to the Care, Maintenance, and Troubleshooting of Capillary Gas Chromatography Systems* provides answers to questions often asked by gas chromatography users. **J&W Scientific. Circle 147.**

*Gel Permeation Chromatography (GPC) Cleanup System* highlights this unit for automated cleanup of environmental samples. **Gilson. Circle 148.**

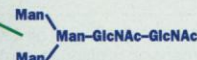
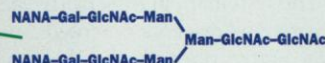
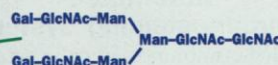
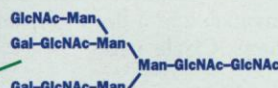
*Gibco BRL Specialty Media* contains information on media and related products and services and includes a bibliography on cell culture. **Life Technologies. Circle 149.**

*The Qiagen Guide to Template Purification and DNA Sequencing* presents an overview of DNA sequencing technology, in-depth discussion of products and issues relating to template preparation, and tips for optimizing DNA sequencing results. **Qiagen. Circle 150.**



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# Science

## PERSONNEL PLACEMENT

### LINE CLASSIFIED ADVERTISEMENTS

**Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

#### How to Submit a Classified Ad:

Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

#### Mail, FAX or Email materials to:

*Science* Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816  
Internet Email: science\_classifieds@aaas.org  
(please include telephone number in email correspondences)

**Rates:** Ads are \$43 per line; \$430 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. Line advertisements are not commissionable.

**Estimates:** *Science* will provide a cost estimate for line ads. This is an approximate cost only. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.

**Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Gordon Clark at +44 1223 302 067 (telephone) or +44 1223 576 208 (FAX).

**Credit Cards:** *Science* accepts American Express, MasterCard and VISA. Discount does not apply to credit cards.

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

### DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. for fractional display ads call:

Bethany Ritchey  
Recruitment Display Advertising  
Telephone: 202-326-6541  
FAX: 202-682-0816

Janis Crowley  
Recruitment Advertising Manager  
Telephone: 212-496-7704  
FAX: 202-682-0816

Gordon Clark  
European Recruitment Advertising  
Telephone: +44 1223 302 067  
FAX: +44 1223 576 208

**Science Global Career Network:** Unless otherwise instructed, every classified advertisement submitted for publication in *Science* is automatically posted on *Science's* on-line classified advertising service, Science Global Career Network, at no additional charge. Science Global Career Network address:

Gopher: gopher.aaas.org  
WWW: http://www.aaas.org

*Science* reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

## POSITIONS OPEN

### ASSISTANT PROFESSOR COMPARATIVE PHYSIOLOGY

Department of Molecular and  
Integrative Physiology  
University of Illinois at Urbana/Champaign

Applications are invited for a full-time tenure-track position at the ASSISTANT PROFESSOR level. Preferences will be given to individuals with interests in comparative or adaptational physiology and utilizing physiological, biochemical, cellular, and/or molecular approaches in their research. Successful candidates must hold a Ph.D. degree with postdoctoral experience, are expected to develop a vigorous, independently funded research program, and to contribute to undergraduate/graduate teaching in comparative/adaptational physiology. The appointee will join a strong department with broad interests and expertise in molecular, cellular, and systems/integrative physiology. The University of Illinois has a state-of-the-art Biotechnology Center with service facilities in molecular biology, protein analysis, cell culture, and transgenic animals. Competitive salary and start-up funds are available. The starting date for this position is fall 1996. To ensure full consideration, applications should be received by December 15, 1995. Applicants should submit a two-page statement describing research interests and plans, curriculum vitae, list of publications, and the names, addresses, and telephone numbers of at least three references to: **Dr. Arthur DeVries, Search Chairperson, Department of Molecular and Integrative Physiology, University of Illinois, 524 Burrill Hall, 407 South Goodwin Avenue, Urbana, IL 61801. Telephone: 217-333-1735.** The University of Illinois is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

### EVOLUTIONARY/POPULATION GENETICIST

The Department of Ecology and Evolutionary Biology is a group of strongly interactive faculty with particular strengths in ecology, evolutionary genetics, morphology, and behavior. We announce a three-year renewable tenure-track ASSISTANT PROFESSORSHIP for an evolutionary/population geneticist starting 1 July 1996. Candidates must have a doctorate, demonstrated excellence in research, potential for excellence in teaching, ability to develop an independently funded research program, and potential to complement and interact productively with departmental faculty. Fields of particular interest include, but are not limited to, the molecular and functional basis of quantitative traits; life history genetics; population structure and gene flow; and phylogenetic studies of character evolution. We encourage applications from candidates working with plants, although demonstrated research excellence and potential for interaction are the most important criteria. Responsibilities include teaching in a genetics course and contributions to courses in evolutionary biology. Applicants should submit résumé; statement of research plans and teaching interests; and representative reprints, and have three letters of reference, to be received by 15 December 1995, sent to: **The Department of Ecology and Evolutionary Biology, Brown University, Providence, RI 02912** in care of **Dr. Johanna Schmitt, Box G-W.** Brown University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

### ENVIRONMENTAL SCIENTIST

Tenure-track, ASSISTANT PROFESSOR, Ph.D., start September 1996. Contribute to new interdisciplinary Environmental Studies major. Candidates should be interdisciplinary, preferably with at least some experience in marine or estuarine environments; interested in helping create well-integrated major that bridges gaps among Natural Sciences, Social Sciences, and Humanities; familiar with aspects of resource management and/or policy; excellent teachers; active scientists who intend to maintain productive research programs, ideally involving undergraduate students; strongly committed to environmental issues. Experience with environmental consulting field, familiarity with political and regulatory entities helpful. Participate periodically in values-oriented General Education. College has support through a recent grant from an NEH-NSF initiative. Send curriculum vitae, teaching evaluations if available, transcripts, three recommendation letters by November 10, 1995 to: **Dr. Gregg R. Brooks, Galbraith Laboratory, Eckerd College, 4200 54th Avenue South, St. Petersburg, FL 33711.** Equal Opportunity Employer.

## POSITIONS OPEN

### THEORETICAL ECOLOGIST Arizona State University

We invite applications for a tenure-track position at the ASSISTANT PROFESSOR level beginning in fall 1996. Candidates must have a primary research interest and record of accomplishment in the development and testing of broad ecological theory using spatially explicit approaches to study ecological processes. We welcome applicants from all of the many disciplines relevant to ecology. The successful candidate will be expected to establish an active research program, to participate in undergraduate and graduate-level teaching, and to develop a course in ecological modeling.

Candidates must have demonstrated a strong commitment to teaching and research and must have a Ph.D. in an appropriate area by August 1996. Applicants should forward a curriculum vitae, selected reprints, statements of teaching and research goals, and arrange for three letters of reference to be sent directly to: **Ecologist Search Committee, Department of Zoology, Arizona State University, Box 871501, Tempe, AZ 85287-1501.** Review of applications will begin November 1, 1995 and continue until position is filled. Applications from two individuals for a single shared appointment will be considered.

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

### ASSISTANT OR ASSOCIATE PROFESSOR BIOCHEMISTRY

The Department of Chemistry and Biochemistry at the University of Oklahoma invites applications for two tenure-track positions at the rank of ASSISTANT or ASSOCIATE PROFESSOR. Candidates must have a Ph.D. degree, postdoctoral experience, the ability to develop a productive research program, and a commitment to teaching excellence. Candidates at the associate level must have an active, funded research program and an internationally recognized record of research accomplishments. Interests in all areas of biochemistry will be considered, but investigators working in the areas of nucleic acids, enzyme mechanisms, or membrane biochemistry are especially encouraged. Review of candidates will begin November 1, 1995. Applicants should submit a complete curriculum vitae, a two-page description of ongoing work and future research plans, and should request that three letters of reference be sent to: **Dr. Phillip E. Klebba, Search Committee Chairman, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019.** The University of Oklahoma is an Affirmative Action/Equal Opportunity Employer. Minority and women candidates are strongly encouraged to apply.

### ORGANIC CHEMIST

The Chemistry Department of Wesleyan University invites applications for a tenure-track position in organic chemistry at the ASSISTANT PROFESSOR level, effective September 1996. Although all areas of research will be considered, applicants in the area of bioorganic or physical organic chemistry are particularly encouraged. The successful candidate will exhibit the potential for excellence in both teaching (undergraduate and graduate level) and research in a well-equipped department with an active Ph.D. program (presently 12 full-time faculty and 35 graduate students), and will be expected to aggressively pursue outside funding. Salary, fringe benefits, and start-up funds will be competitive. Interested applicants should submit a curriculum vitae and a description of research plans, and have three letters of reference sent to: **Chair of the Organic Search Committee, Department of Chemistry, Wesleyan University, Middletown, CT 06459** by November 1, 1995. Wesleyan University is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from women and minority candidates.

**Developmental Biologist:** Tenure-track ASSISTANT PROFESSOR with broad background, to teach developmental biology, human physiology and anatomy, parts of the biotechnology certificate program, and advanced courses in area of specialization. Preferred specialization: molecular mechanisms of development in eukaryotes. Must develop a research program with undergraduate and graduate M.A. candidates. Ph.D. required; teaching experience and recent research experience preferred. Send curriculum vitae, transcripts, at least three letters of recommendation to: **Dr. Ronald L. Evans, Chair, Department of Biology, California State University, Fresno, Fresno, CA 93740-0073.** Closing date: December 1, 1995. Equal Opportunity/Affirmative Action Employer.

# Postdoctoral Opportunities In The Biomedical Sciences.

The following research training opportunities are currently available at the National Institutes of Health.

## **Functional Analysis of Murine LIM/Homeobox Genes** **Heiner Westphal, MD**

Members of the LIM/Homeobox gene family play pivotal roles in embryonic development. These genes are characterized biochemically and in gene-altered mice, using a state-of-art mouse facility. Gene ablations of mutations generate exciting phenotypes. A background in molecular biology or in molecular genetics of development is desirable. An MD degree (US or foreign) and US citizenship or permanent residency is required. Laboratory of Mammalian Genes and Development (OE-100), NICHD, Building 6B, Room 413, 6 CENTER DR MSC 2790, BETHESDA MD 20892-2790.

## **Genomic Imprinting** **Karl Pfeifer, PhD**

Using molecular, genetic, and biochemical approaches to elucidate mechanisms for genomic imprinting, the parental specific regulation of gene expression in mammals is being studied. The focus is on mouse distal chromosome 7, a region with synteny to human 11p15.5, and the role of the unique H19 RNA in regulating expression of itself and its neighboring imprinted genes. Of particular interest is using these studies to elucidate roles for chromosome organization in gene regulation. Mammalian Genes and Development (OE-100), NICHD, Building 6B, Room 210, 6 CENTER DR MSC 2780, BETHESDA MD 20892-2780.

## **Mechanisms of Tolerance Induction** **Amy Rosenberg, MD**

Induction of antigen specific tolerance is being explored by the construction and implementation of novel fusion molecules capable of redirecting immune responses. A strong background in molecular biology, particularly with expertise in PCR based techniques, and an avid interest in immunology is particularly desired. Candidates must have less than five years of postdoctoral experience and must be a US citizen or permanent resident. Laboratory of Cellular Immunology, (OE-100), FDA/CBER (HFM-538), Division of Hematologic Products, 1401 Rockville Pike, Rockville, MD 20852.

## **Neurobiology of Trophic Factors** **Joan P. Schwartz, PhD**

Regulation of expression of both known and novel neurotrophic factors is being studied during development and following CNS injury with particular emphasis on the role of glia. Molecular and cellular techniques are applied to cultured cells and transgenic mouse lines. Candidates must have a strong background in neurobiology and/or molecular biology, and must have less than five years of postdoctoral experience, and preferably be a US citizen or permanent resident. Clinical Neuroscience Branch (OE-100), NINDS, Building 10, Room 3N256, 10 CENTER DR MSC 1279, BETHESDA MD 20892-1279.

## **Thyroid Hormone Action and Morphogenesis** **Yun-Bo Shi, PhD**

Amphibian metamorphosis is being investigated as a model system for postembryonic organ development. This process involves both specific cell death and selective cell proliferation and differentiation and is controlled by

thyroid hormone. Current studies emphasize the mechanism of gene regulation, in the context of chromatin, by thyroid hormone and the roles of thyroid hormone-regulated metalloproteinase genes during organogenesis. Laboratory of Molecular Embryology (OE-100), NICHD, Building 18T, Room 101, 18 LIBRARY DR MSC 5430, BETHESDA MD 20892-5430.

## **Viral Pathogenesis** **Stephen E. Straus, MD**

The regulation and expression of genes involved in latent herpes simplex virus and varicella-zoster virus infections is under investigation using relevant animal models and human tissues. Methods include sequence-specific mutagenesis, *in situ*-PCR, and immunohistochemistry. Applicants should have strong backgrounds in molecular neurobiology and/or molecular virology and have less than five years of postdoctoral experience. Laboratory of Clinical Investigation (OE-100), NIAID, Building 10, Room 11N228, 10 CENTER DR MSC 1888, BETHESDA MD 20892-1888

## **X-Ray Crystallography** **Wei Yang, PhD**

Two positions to study molecular assemblies and mechanisms of DNA recombination and repair in both prokaryotic and eukaryotic systems. Motivated candidates from biochemistry, molecular biology or structural biology background with less than five years of postdoctoral experience are welcome. Laboratory of Molecular Biology (OE-100), NIDDK, Building 5, Room 338, 5 CENTER DR MSC 0560, BETHESDA MD 20892-0560.

## **Additional Opportunities**

The NIHEDNET Bulletin Board **POSTDOC** (fellowship positions) and **TENURE** (tenure track positions) conferences are accessed via a modem (301-402-2221 or 800-358-2221 with parameters set at 7,Even,1) or the Internet using Telnet ([wylbur.cu.nih.gov](http://wylbur.cu.nih.gov)) or the World Wide Web (URL: <http://wylbur.cu.nih.gov>). When connected to NIH, key in, **vt100** for terminal emulation, **F5E** for initials, and **AJL1** for account number. To view tenure track positions, **quit** the **POSTDOC** conference and **join** the **TENURE** conference.

An electronic version of the *Postdoctoral Research Fellowship Opportunities* catalog is accessed via the Internet using either the Gopher Information System ([gopher.nih.gov](http://gopher.nih.gov)) or the World Wide Web (URL: <http://www.nih.gov>). When connected with Gopher, select **Grants and Research Information** and then **NIH Office of Education**. When connected with WWW, select **Grants and Contracts** and then **NIH Office of Education**. If you have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, Phone 301-496-2427, Fax 301-402-0483.

## **To Apply**

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (MD, DO, DDS, DMD or DVM) accompanied by previous laboratory research experience, 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

## Office Of Education

The NIH is an Equal Opportunity Employer



## POSITIONS OPEN

**ASSISTANT/ASSOCIATE PROFESSOR:** The Department of Anatomy and Cell Biology in the Faculty of Medicine at the University of Alberta invites applications for a tenure-track position as Assistant/Associate Professor. We are looking for an individual who will complement our existing strengths in 1) protein targeting and organelle biogenesis, 2) cell-cell interactions, and 3) cell signaling. Salary range: \$40,035 to \$71,725 per annum, plus comprehensive benefits. Applicants should have proven records of research achievement and will be eligible for funding by the Alberta Heritage Foundation for Medical Research. The successful candidate will be expected to carry on an independent research program, but will also have the opportunity for collaborative interactions with several multidisciplinary research groups within the University. A contribution to the Department's teaching program will also be expected. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.* Please send a curriculum vitae, a one-page statement of research interests, and arrange to have three to five letters of reference sent on your behalf to: **Dr. Richard Rachubinski, Professor and Chair, Anatomy and Cell Biology, University of Alberta, Edmonton, Alberta T6G 2H7 Canada.** Deadline for receipt of applications is December 15, 1995. *The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.*

## BIOLOGICAL OCEANOGRAPHER

The U.S. Coast Guard Academy invites applications for a tenure-track faculty position (**ASSISTANT/ASSOCIATE PROFESSOR** level) commencing in fall 1996 to teach undergraduate courses in Marine Biology and Biological Oceanography. A Ph.D. in Marine Biology or Biological Oceanography is required and college-level teaching and postdoctoral experience are preferred. The ideal candidate would have a specialization in marine plankton, an expertise in marine invertebrates, and a demonstrated commitment to excellence and innovation in undergraduate teaching. The Coast Guard Academy enjoys a small college atmosphere, is located on the banks of the Thames River estuary, and is equipped with a 30-foot marine science boat.

Submit curriculum vitae and names, addresses, and telephone numbers of three references to: **U.S. Coast Guard Academy (pc), Civilian Personnel Office (11-95), 15 Mohegan Avenue, New London, CT 06320-4195. Telephone: 860-444-8204; FAX: 860-444-8288.** Applications must be postmarked by 1 December 1995. *Some citizenship restrictions may apply. Women and minorities are encouraged to apply. The U.S. Coast Guard is an Equal Opportunity, Affirmative Action Employer.*

## ASSOCIATE/PROFESSOR Co-Director of Retinal Pigment Epithelium/ Retinal Transplant Program

Position available for transplant scientist to head a new research program focusing on transplantation of retinal pigment epithelium (RPE) and/or photoreceptors as a possible treatment for diseases affecting the RPE and retina. Expertise in immunology desirable. Ph.D. scientist at or eligible for **ASSOCIATE PROFESSOR** level. Strong public relations and language skills encouraged. Must have experience in transplantation biology, preferably experienced in cell transplantation, including outside the visual system (islet cell, Parkinson's, etc.), M.D. Send inquiries to: **Paul Sternberg, Jr., M.D., Emory University, Department of Ophthalmology, 1327 Clifton Road, Atlanta, GA 30322.** *Emory University is an Affirmative Action/Equal Opportunity Employer.*

Microbial Geneticist. **ASSISTANT PROFESSOR**, tenure-track, fall 1996. Ph.D. required to teach Microbiology, Genetics, Molecular Biology, advanced courses, and supervise Master's and undergraduate research. Strong commitment to teaching and college teaching experience desirable. Application review begins 27 October 1995. Submit statement of teaching interests and research plans, curriculum vitae, transcripts, and addresses and telephone numbers of three references to: **Biology Search Committee, University of Illinois at Springfield, HSB 223, Springfield, IL 62794-9243.** *UIS is an Affirmative Action/Equal Opportunity Employer. People with disabilities, women, minorities and veterans are encouraged to apply.*

## POSITIONS OPEN

### EUKARYOTIC GENETICIST

Applications are invited for a tenure-track position in Eukaryotic Genetics at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level in the Department of Biological Sciences, University of Nevada-Las Vegas. Ph.D. required; postdoctoral experience preferred. The primary teaching responsibility of the successful candidate will be a core course in undergraduate genetics with laboratory. The candidate will also be expected to contribute to other courses at the undergraduate and graduate levels and to maintain an active independent research laboratory. The area of research is open, but should be compatible with existing support facilities. Applicants should submit a curriculum vitae, a copy of unofficial graduate transcripts, a brief description of current and future research interests, a statement of teaching interests, and three letters of recommendation by November 10, 1995 to: **Department of Biological Sciences, c/o Dr. H. Lehman, Chair, Geneticist Search Committee, University of Nevada-Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154-4004.** *UNLV is an Affirmative Action/Equal Opportunity Employer.*

### MUHLENBERG COLLEGE

The Biology Department invites applications for a tenure-track, **ASSISTANT PROFESSOR** position in the area of Molecular Biology to begin fall semester 1996. Qualifications include: a Ph.D., demonstrated excellence in teaching, a commitment to undergraduate research, and a desire to contribute to a broad undergraduate program in Biology. Responsibilities include teaching a two-semester course in Biochemistry and an upper-level course in area of expertise. Muhlenberg College is a selective, four-year liberal arts college located north of Philadelphia. To apply, send curriculum vitae, statements of teaching and research interests, and three letters of reference to: **Dr. Richard A. Niesenbaum, Molecular Biology Search, Biology Department, Muhlenberg College, 2400 Chew Street, Allentown, PA 18104-5586.** Review of applications will begin by November 1, 1995. *An Equal Opportunity Employer, we encourage applications from minority and female candidates.*

The Department of Chemistry at Rutgers University, New Brunswick, invites applications and nominations for a tenure-track position at the **ASSISTANT PROFESSOR** level to commence fall 1996. Higher level appointments may be considered in exceptional cases. The successful candidate is expected to develop a vigorous externally funded program at the interface between biophysical chemistry and chemical physics and show a strong commitment to teaching/training at both the undergraduate and graduate levels. Interested candidates should send their résumé, a brief description of their research plans, and arrange for three letters of recommendation to be sent directly to: **Professor Martha Greenblatt, Chair, Department of Chemistry, Rutgers University, P.O. Box 939, Piscataway, NJ 08855-0939.** *Rutgers is an Equal Opportunity/Affirmative Action Employer.*

Tenure-track **ASSISTANT PROFESSOR** position available August 1996 for zoologist. Teaching responsibility may include general zoology, human anatomy and physiology, comparative anatomy, and upper division course in candidate's specialty. Ph.D. or equivalent required. Area of research interest is open. Mail one copy of all university transcripts, curriculum vitae, and three letters of recommendation, all postmarked by December 2, 1995, to: **Dr. Judith Greenmyer, Biology Department, West Chester University, West Chester, PA 19383.** For detailed job description call Telephone: 610-436-1023 or Email: [jgreenmyer@wcupa.edu](mailto:jgreenmyer@wcupa.edu). *Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### DEVELOPMENTAL BIOLOGIST

**ASSISTANT PROFESSOR** in developmental biology, employing modern molecular approaches. Tenure track beginning August 1996. Ph.D. required; postdoctoral experience preferred. Expected to establish ongoing research program involving undergraduate students and to teach animal and developmental biology. Send by December 1, 1995, letter including description of teaching and research interests, curriculum vitae, and a list of three references to: **Dr. Douglas Duff, Chair, Department of Biological Sciences, Indiana University South Bend, South Bend, IN 46634.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### FACULTY POSITION

**ASSISTANT** or **ASSOCIATE PROFESSOR**, tenure track, nine-month academic year. Doctorate degree in one of the following areas: Industrial Hygiene, Environmental Health, Occupational Health, Hazardous Materials Management, or Environmental Engineering. Bachelor's or Master's degree in engineering or chemistry preferred. Teaching experience, scholarly activity, and industrial experience all strongly desired. Successful candidate will teach at graduate and undergraduate levels, and will be expected to direct Master's thesis and participate in advisement and service. The development of a funded research program is expected. Salary is competitive and commensurate with qualifications and experience.

Applicants should send a statement of experience; current curriculum vitae; names, addresses, telephone numbers of at least three references; and documentation of publications, grant funding, and research to: **Dr. Larry Curtis, Chair, Department of Environmental Health, College of Public and Allied Health, East Tennessee State University, Box 70682, Johnson City, TN 37614-6082.** Review of applications will begin on October 30, 1995, and the process will continue until a suitable candidate is found. *An Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR Baylor College of Medicine

The Department of Molecular Physiology and Biophysics has a tenure-track **ASSISTANT PROFESSOR** position available. Qualifications include a doctorate in one of the biological sciences and at least two years of postdoctoral training. The candidate should have a research program in the area of structure and function of membrane proteins. We are especially interested in candidates working with ion channels or other membrane proteins in the cardiovascular system and who have demonstrated ability to obtain research funding. Please send curriculum vitae, a statement of research interests and three letters of recommendation to: **Chair, Recruiting Committee, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030.** Closing date for applications is December 31, 1995.

*Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.*

Biology: **ASSISTANT PROFESSOR** (full time, tenure track), beginning August 1, 1996. Geneticist. Ph.D. required, postdoctoral research experience desired. Teaching responsibilities include lectures/laboratories in Genetics, Molecular Genetics, Immunology and Virology, Environmental Genetics, and/or Introductory Biology. Commitment to teaching excellence essential. Scholarly activities and research program involving undergraduate students expected. Pursuit of extramural funding for research essential. Advising students and participation in departmental matters required. Send curriculum vitae, transcripts, statement of interests and goals, and three reference letters to: **Dr. Charles H. Nelson, Head, Department of Biological and Environmental Sciences, 615 McCallie Avenue, The University of Tennessee at Chattanooga, Chattanooga, TN 37403.** Screening of credentials will begin on December 15, 1995 and will continue until the position is filled. *The University of Tennessee at Chattanooga is an Equal Employment Opportunity/Affirmative Action/Title IX/Section 504, ADA Institution.*

Teaching Position—Environmental Studies. The Human and Natural Ecology Program, Emory University, invites applications for a teaching position at the **ASSISTANT PROFESSOR** rank for a non-tenure-track, 18-month term beginning in January 1996, with a possibility of renewal for two additional years. A Ph.D. degree is necessary. The successful applicant should have training in environmental studies, requiring an interdisciplinary approach to environmental problems, ideally with a public policy or a social science focus. An innovative interdisciplinary approach, expertise in computer use for teaching and communication, and evidence of excellent teaching are required. Responsibilities include teaching introductory and advanced courses in environmental studies, advising students, and some administrative tasks. Send curriculum vitae, a statement addressing how you meet our criteria, and three letters of recommendation to: **Dr. Paula J. S. Martin, Human and Natural Ecology Program, Emory University, Atlanta, GA 30322.** Closing date November 1, 1995. *Emory is an Equal Opportunity/Affirmative Action Employer.*

Post-Doctoral Positions in Virology  
Announcement No.: PA19

**NATIONAL INSTITUTES OF HEALTH.**

Positions will be available in the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases. The Research activity involves (1) the development of live attenuated influenza A virus and parainfluenza virus vaccines and their characterization in rodents, in non-human primates, and in humans; (2) the use of new "rescue" systems for these viruses to examine basic questions of viral genetics, molecular virology, viral pathogenesis, and the molecular basis of attenuation; (3) production of new candidate vaccines using site-directed mutagenesis to introduce desired attenuating mutations into viral genomes; and (4) the evaluation of the immunologic determinants of resistance to infection and illness caused by these respiratory viruses. These full-time research positions offer a unique opportunity to work on investigations that range from basic molecular biology to applied vaccinology, and they provide excellent laboratory-based experiences for PhD's and MD's at all levels of training who plan a career in research in virology or infectious diseases caused by viruses. Salary will be commensurate with experience. Candidates with less than or equal to seven years of experience since obtaining their last professional degree are eligible for this position. U.S. citizenship or Permanent Resident Alien. Position targeted for EEO recruitment efforts.

Qualified and interested scientists should send their curriculum vitae and names and addresses of three (3) references to: **NIAID Personnel Office, Bldg. 31, Room 7A-20, 9000 Rockville Pike, Bethesda, MD 20892, Attn: Kristi Daniel**

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## Computational Scientist

*Boulder, Colorado*

At Amgen, you'll discover a research environment that emphasizes collaboration, intellectual honesty, scientific integrity, and a supportive culture. This unique approach has helped us grow into a global biotechnology leader in just fifteen years.

We seek an experienced Computational Scientist to support our screening and combinatorial efforts. Responsibilities include the design, development, and maintenance of relational databases, and/or laboratory information management systems. You will work with research scientists to determine their needs and develop suitable data management tools.

Successful candidates must have an advanced degree in Computer Science, Chemistry or Biology, or equivalent; 3 years' experience in building relational databases; and 4 years' general programming experience. A data management background in a high throughput screening or combinatorial chemistry environment within the pharmaceutical industry is also required. Excellent communication skills and the ability to work in a multi-discipline team environment are essential.

We recognize that diverse perspectives are a key factor in the process of discovery.

At Amgen, you'll find our approach as rewarding as it is effective. We offer a highly competitive compensation and benefits package. Please mail your resume to: Amgen Boulder, Human Resources Dept., Job Code: OXP-SC-10054, 3200 Walnut Street, Boulder, CO 80301. Please consult our on-line Job Bulletin Board at <http://www.bio.com> for information on other career opportunities available at Amgen. Principals only, please.

EEO/AA Employer M/F/D/V

**AMGEN**®

**Postdoctoral Research Associate**

position is available for a recently qualified Ph.D. to join a research group focusing on the modulation of gene expression by ribozymes in tumor cells. Studies will involve the design and application of viral constructs containing both antisense DNA and ribozymes targeted towards unique tumor-specific transcripts. A strong background in mammalian cell culture and molecular biology with experience in either adenoviral or retroviral vectors would be advantageous.

Send c.v. and names of three references to:

**Dr. Philip Potter**  
Department of Molecular Pharmacology  
St. Jude Children's Research Hospital  
332 N. Lauderdale  
Memphis, TN 38105

An equal opportunity/affirmative action employer.



## SENIOR ACCELERATOR DESIGNER

Oak Ridge National Laboratory (ORNL) is seeking a senior scientist to assemble a group to design the accelerator systems for a high-powered, pulsed, spallation neutron source. Applicants should have a PhD and/or extensive experience in designing accelerator systems (ion sources/linacs/fast cycling synchrotrons/accumulator rings), in beam optics and integration, and experience in managing a design group. The tasks include working with ORNL management to assemble an accelerator design team, to define the scope of the accelerator design, to interface with existing ORNL spallation source design efforts, and to work with other DOE laboratories, industry, and universities to achieve an integrated conceptual

design for a spallation neutron source. The position becomes available October 1, 1995.

ORNL, a multipurpose research facility managed by Lockheed Martin for the U.S. Department of Energy, offers a competitive compensation and benefits package, including relocation. For immediate consideration, submit a resume to: Search Committee, c/o B.R. Appleton, Associate Director for Advanced Materials, Physical, and Neutron Sciences, Dept. SCI-929, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6240.

ORNL is an equal opportunity employer committed to building and maintaining a diverse workforce.

**ornl**

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR Reproductive Biology, Johns Hopkins University

Applications are invited for a tenure-track position in the Reproductive Sciences. We seek investigators who use modern biochemical and molecular approaches to study basic reproductive processes including but not limited to male/female reproduction, development/differentiation, signal transduction, gene regulation, reproductive toxicology/aging. Faculty maintain independent, well-funded research programs, and advise and teach graduate and postgraduate students. Application deadline: December 1, 1995. Starting date: Negotiable. Send curriculum vitae, description of current and future research interests, and names of four references to: **Dr. Terry R. Brown, Division of Reproductive Biology, Johns Hopkins School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205.**

*The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Applications are encouraged from women and minority groups.*

### EMORY UNIVERSITY Experimental Physical Chemistry Faculty Position

The Department of Chemistry invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level starting fall 1996. We are seeking an experimental physical chemist with interests in condensed phase processes. The individual selected for this position will be expected to establish outstanding research and teaching programs. Candidates must hold a Ph.D. and preference will be given to those with postdoctoral experience. Applicants should send a curriculum vitae, a proposed research program, and arrange to have three letters of recommendation sent to: **Chair, Faculty Recruiting Committee, Department of Chemistry, Emory University, Atlanta, GA 30322.** To ensure full consideration, applications should be received by December 1, 1995. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

### BIOLOGY—DEVELOPMENTAL BIOLOGY

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning September 1996. The successful candidate will be expected to develop a research program analyzing mammalian developmental mechanisms using molecular techniques. Interest in both teaching and involving undergraduate students in research is essential. Postdoctoral experience necessary. Send curriculum vitae, three letters of recommendation, and summary of teaching and research interests by December 1, 1995 to: **Dr. Thomas C. Mayer, Department of Biology, Rider University, 2083 Lawrenceville Road, Lawrenceville, NJ 08648-3099.** *Rider University is an Equal Opportunity/Affirmative Action Employer and genuinely seeks a diverse applicant pool.*

Geneticist. Tenure-track **ASSISTANT PROFESSOR** position to begin 16 August 1996. Both plant and animal geneticists are encouraged to apply. Establishment of a strong, independent research program and direction of graduate students is expected. Will instruct a core genetics course and participate in team-taught introductory biology. Ph.D. required and postdoctoral experience desirable. Send curriculum vitae, three representative reprints, and statements of teaching and research interests, and have three letters of reference sent to: **Chair, Genetics Search Committee, Department of Biology, University of North Dakota, Grand Forks, ND 58202-9019.** Review of applications will begin on October 27, 1995 and continue until the position is filled. *The University of North Dakota is an Affirmative Action/Equal Opportunity Employer.*

### CURATORIAL POSITION IN ICHTHYOLOGY American Museum of Natural History

A tenure-track Curatorial Position in Ichthyology (*Science*, 265:1618) remains open and additional applications are encouraged. Applicants should submit a letter of application with a brief statement of research objectives, curriculum vitae, complete bibliography, and names, addresses, and telephone numbers of three references. Review of completed applications is ongoing and will continue until the position is filled. Submit to: **Dr. Charles W. Myers, Chairman, Department of Herpetology and Ichthyology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192.** *Equal Opportunity Employer.*

## POSITIONS OPEN

The University of Nebraska Medical Center invites applications for a **PROFESSORSHIP** in Pathology and Microbiology in retroviral molecular biology and pathogenesis. Applications are invited from individuals with international stature with proven track record in acquiring extramural funding. The Department has ongoing federally funded research programs in immunology, cancer biology, neurovirology, and HIV-1 immunopathogenesis which interfaces with a federally funded ACTG in HIV clinical care. A generous starting package, a large fully equipped "state of the art" laboratory are provided. Send curriculum vitae and a detailed description of research plans no later than November 15, 1995 to: **Dr. Howard Gendelman, Chairman, Molecular Retrovirology Search Committee, Path/Micro, UNMC, 600 South 42nd Street, Omaha, NE 68198-5215.** *An Affirmative Action/Equal Opportunity Employer.*

The Chemistry Department of Cal Poly, San Luis Obispo, California, invites applications for **ASSISTANT PROFESSOR**, tenure-track positions beginning September 1996. We have acute needs in biochemistry and organic chemistry. Ph.D. required. Salary commensurate with qualifications and experience. Successful applicants will have duties in general chemistry as well as appropriate specialty courses. Send letter of application with reference to recruitment code number 63012, résumé, and statement of professional goals to: **Dr. Albert C. Censullo, Chair, Chemistry Department, Cal Poly State University, San Luis Obispo, CA 93407.** Three letters of recommendation should be supplied directly by references. All application materials must be received by December 1, 1995. *Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications and nominations of women, persons of color, applicants with disabilities, and members of other underrepresented groups. Affirmative Action/Equal Opportunity Employer.*

### DIRECTOR OF GENE THERAPY

The Department of Internal Medicine, Division of Hematology/Oncology, The Center of Molecular Medicine and Genetics, and the Barbara Ann Karmanos Cancer Institute at Wayne State University in Detroit, Michigan is seeking applicants with a Ph.D. and a background in gene therapy. The **DIRECTOR** will be responsible for developing a broad-based program directed toward molecular therapy of neoplastic disease. The Director will interact with scientists in the Cancer Center, Center of Molecular Medicine and Genetics, and other departments in the University to: develop the laboratory facilities and expertise for the design and implementation of cutting edge molecular therapies; design specific therapeutic approaches and test them in appropriate animal and cell culture models; help define the specific clinical situations that most lend themselves to a gene therapy approach and define the logistical goals of the ultimate delivery of the therapy in a clinical setting.

Send curriculum vitae to: **Gloria Heppner, Ph.D., Wayne State University, c/o Harper Hospital, 3990 John R, 1 Webster, Detroit, MI 48201.** *Women and members of minority groups are encouraged to apply. Wayne State University School of Medicine, the country's largest single campus medical school, is an Equal Opportunity/Affirmative Action Employer.*

### CHEMISTRY AT NYU

Applications are invited for an expected tenure-track **FACULTY POSITION** in theoretical chemistry at New York University (NYU). Candidates should have a strong record of research accomplishments in any area, including dynamic processes in condensed matter, biomolecular modeling, or large scale electronic structure computations, and be committed to teaching effectively at the undergraduate and graduate levels. While a junior-level appointment is planned, outstanding candidates will be considered at any level. Please submit applications, including curriculum vitae, copies of your two most important publications, a statement of research interests, and three letters of reference to: **Search Committee, Department of Chemistry, New York University, 4 Washington Place, New York, NY 10003.** We will begin evaluating applications November 1, 1995. Additional applications will be accepted until the position is filled. *NYU encourages applications from women and members of minority groups.*

## POSITIONS OPEN



### JUNIOR GROUP LEADER POSITION IN NEUROBIOLOGY

The Friedrich Miescher Institute offers a **TENURE-TRACK POSITION** to a biologist with a strong background in transgenic mouse technology to carry out independent research in neurosciences such as developmental neurobiology, neuron-glia interactions, or molecular aspects of brain plasticity. Her or his research should complement that of existing neurobiology-oriented groups (**M. Burger, P. Caroni, A. Matus, D. Monard**). The Friedrich Miescher Institute is a foundation devoted to basic cell and molecular biology research offering excellent facilities in a stimulating scientific environment. The Institute already has several groups using transgenic methods supported by an existing technical service.

Application and inquiries should be addressed to: **Dr. Werner Reber, Friedrich Miescher Institute, P.O. Box 2543, CH-4002 Basel, Switzerland** by November 1, 1995.

### DIRECTOR, MASSEY CANCER CENTER Medical College of Virginia Virginia Commonwealth University (MCV/VCU)

MCV/VCU seeks a nationally recognized leader of cancer research activity as Director of its Massey Cancer Center, an NCI designated Center since its inception in 1974 with programs in basic and clinical research. Applicant must hold an M.D. or Ph.D. degree, qualify for appointment at the rank of Professor, and demonstrate significant cancer-related scholarly accomplishments. Substantive managerial skills are strongly desired.

Experience working in an academic medical center and culturally diverse environment is preferred. Interested applicants should submit curriculum vitae by January 1, 1996 to: **Anthony V. Proto, M.D., Chair—Search Committee for the Director, Massey Cancer Center, MCV/VCU, P.O. Box 980470, Richmond, VA 23298-0470.** *The University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, persons with disabilities are encouraged to apply.*

### GUILFORD COLLEGE

Biology: Botanist. Full-time **TENURE-TRACK** position. Major interest must be in teaching undergraduates, both majors and non-majors. Primary teaching responsibilities to include: General Botany (majors and non-majors); Field Botany; additional upper level biology courses; and courses for non-majors such as Plants and Society, Economic Botany, or Environmental Science. Must be committed to working closely with students, to guide their research and internships, and to serve as an academic adviser. Guilford College is a private, selective coeducational liberal arts college of 1,200 students founded by the Religious Society of Friends (Quakers). Applicants should have Ph.D. Please send letter of application, curriculum vitae, and three references to: **Dr. Charles G. Smith, Biology Department, Guilford College, Greensboro, NC 27410** by December 15, 1995. *Affirmative Action/Equal Opportunity Employer. Minorities are encouraged to apply.*

### ASSISTANT PROFESSOR PLANT PHYSIOLOGY

SUNY College of Environmental Science and Forestry is seeking a Plant Physiologist at the **ASSISTANT PROFESSOR** level in an academic year, tenure-track position available August 1996. Candidates must have a Ph.D. in higher plant physiology. Broad training and research interests in physiology of vascular plants, plant/microbe interactions or ecological physiology are preferred. Postdoctoral experience and knowledge of molecular biology desirable. The successful candidate is to participate in instruction at both undergraduate and graduate levels; to develop an extramurally funded research program; to interact with pathologists; ecologists, microbiologists and molecular biologists; and to participate in the College's service activities. Submit curriculum vitae, transcripts, teaching and research goals, and have three letters of reference sent directly to: **Dr. H. B. Tepper, Chair, Search Committee, SUNY College of Environmental Science and Forestry, One Forestry Drive, Syracuse, NY 13210** by November 17, 1995. *Women and minorities are encouraged to apply. An Equal Opportunity/Affirmative Action Employer.*



# MOLECULAR VIROLOGY AND HOST DEFENSE

## Scientist

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research and anti-infectives, is seeking a scientist to join the host defense function of our Molecular Virology and Host Defense Department.

In conjunction with other scientists, the selected candidate will participate in and plan experiments to evaluate the effects of novel therapeutics in the area of stem cell biology; and will present the results in a team atmosphere.

Qualified candidates will have at least a BS in a biology related field; a minimum of 5 years' laboratory experience, preferably in the pharmaceutical industry; experience with care and experimentation with rodents; excellent communication skills, and the ability to work effectively with individuals working toward a common goal. Previous experience in the evaluation of hematopoietic agents *in vitro* and *in vivo* is preferred but not required.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers an excellent compensation/benefits/relocation package. Interested candidates should send resumes with salary requirements to: SmithKline Beecham Pharmaceuticals, Job Code L353, P.O. Box 2646, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



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## RESEARCH MANAGER, GENETIC MARKER LAB

Pioneer Hi-Bred International, a worldwide leader in the dynamic field of agricultural genetics, has an immediate opportunity for a resourceful professional to work as part of a team which conducts high throughput genetic marker research on all crops. In this key role, you will lead a team in executing genetic marker experiments, including marker-assisted breeding and transgene identification, and be responsible for meeting deadlines to deliver accurate genetic data to other breeders and other research projects. In addition, you will work with team members to develop new technologies for faster, more reliable genetic marker data production.

The qualified candidate will have training in Molecular Biology, Genetics, Plant Breeding and/or Statistics as well as a Ph.D. in Biology, Molecular Biology, Genetics, or related discipline, with 3-5 years post-doctoral experience. The ability to work effectively independently and with team members is essential.

For confidential consideration, please send two (2) copies of application and resume by Oct. 13, 1995 to: **Jon Day, Pioneer Hi-Bred International, Inc., 6900 NW 62nd Avenue - Box 212, Johnston, IA 50131-0212.** Pioneer Hi-Bred is an Equal Employment Opportunity company.



**PIONEER HI-BRED INTERNATIONAL, INC.**

## WYETH-AYERST RESEARCH

Wyeth-Ayerst Research, a major division of Fortune 150 American Home Products Corporation, has opportunities available in Molecular Genetics, an expanding Core

Technology Division located

at the Princeton, New Jersey

research center. This

Division is responsible for

the application of molecular

genetics to the development

of transgenic models of

human disease.

## MOLECULAR GENETICS Ph.D.s

Our goal is to assemble a highly trained multidisciplinary team of enthusiastic and creative scientists whose expertise will synergize with investigators in other divisions to facilitate the application of molecular genetics to drug discovery in Cardiovascular Disease, Diabetes, CNS Disorders, Oncology, Infectious Diseases and Women's Health.

Each staff member is expected to have dual training: in molecular genetics and in a discipline related to an area of therapeutic interest.

## Veterinary Pathology/ Comparative Medicine

This pathologist will conduct the characterization of transgenic animal models of human disease produced by the Division. The position requires a degree in veterinary pathology or its equivalent; substantial background in the anatomy and pathology of rodents; demonstrated ability in the analysis and interpretation of pathology/histology data; experience with state-of-the-art techniques utilized in the analysis of transgenic animals (in situ hybridization, RNA, DNA and Protein blotting, immunocytochemistry, etc.); and supervisory experience. **Position #1269.**

## Central Nervous System

This senior individual will be the Molecular Genetics liaison to the Division of CNS Disorders and will have responsibility for the initiation and conduct of transgenic animal-based projects with that Division. The position requires fundamental training and a proven track record of excellence in research in neuroscience; graduate and postdoctoral training in molecular genetics; experience with transgenic animal and/or embryonic stem cell technology; and supervisory experience. **Position #1201.**

## Oncology

This senior individual will be the Molecular Genetics liaison to the Division of Oncology/Immunology and will have responsibility for the initiation and conduct of transgenic animal-based projects with that Division. The position requires fundamental training and a proven track record of excellence in research in Oncology; graduate and postdoctoral training in molecular genetics; experience with transgenic animal and/or embryonic stem cell technology; and supervisory experience. **Position #1214.**

## Infectious Diseases

This senior individual will be the Molecular Genetics liaison to the Division of Infectious Diseases and will have responsibility for the initiation and conduct of transgenic animal-based projects with that Division. The position requires fundamental training and a proven track record of excellence in research in infectious diseases; graduate and postdoctoral training in molecular genetics; experience with transgenic animal and/or embryonic stem cell technology; and supervisory experience. **Position #1269B.**

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Please respond by sending your resume with salary requirements and Position # of interest to: **Wyeth-Ayerst Research, Human Resources, CN 8000, Princeton, NJ 08543-8000.**

Or you may fax your resume directly into our centralized Research resume database at (610) 989-4854. Principals Only. Equal Opportunity Employer, M/F/D/V.



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## POSITIONS OPEN

### UNIVERSITY OF VIRGINIA Center for Cell Signaling

The Center is seeking two outstanding individuals with a record of research productivity and grant support to complement existing programs that focus on protein kinases and phosphatases. This research center within the School of Medicine seeks to discover mechanisms of how external signals alter cellular phenotypes. It is located in newly-renovated contiguous space. Recruitment of new faculty is supported in part by a grant from the Lucille P. Markey Charitable Trust. Senior academic appointments with tenure at the **ASSOCIATE OR FULL PROFESSOR LEVEL** are arranged with departments in the School of Medicine. Of particular interest is research in the areas of JAK/STAT signaling, nuclear import and export of proteins, steroid receptor phosphorylation and function, and CDKs and their inhibitors in cell cycle control. The University of Virginia provides an interactive scientific community with a variety of core facilities, research centers, and training programs, with particular strength in the area of signal transduction.

Applications will be handled in confidence on a continuing basis starting November 1, 1995, with appointments to start July 1996. Please send a curriculum vitae, including publications and grant support for the past five years, to: **Cell Signaling Search Committee, D. L. Bratigan, Chair, Box 577, University of Virginia, Charlottesville, VA 22908.** The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Applications from women and under-represented minorities are especially encouraged.

### FACULTY POSITIONS

#### Assistant, Associate or Full Professor Department of Physiology and Biophysics University of Mississippi Medical Center

The Department of Physiology and Biophysics at the University of Mississippi Medical Center invites applications for tenure-track faculty appointments. Applicants will be considered for the ranks of **ASSISTANT, ASSOCIATE, or FULL PROFESSOR.** Applicants must have a Ph.D. and/or M.D. and postdoctoral training, and must be a permanent resident or citizen of the United States. We are seeking individuals with expertise in molecular and/or cellular physiology with research interests that complement existing areas of excellence in cardiovascular and/or renal physiology. Special consideration will be given to candidates with research interests in the areas of regulation of extracellular matrix in blood vessels, heart, or kidneys; mechanisms of angiogenesis; and hypertrophy of vascular or cardiac muscle. Successful applicants are expected to establish a strong independent research program, supported by extramural funding, and contribute to the teaching of graduate and medical students. Interested applicants should send a curriculum vitae, an indication of past and current research funding, a statement of research interests, and the names of at least three references to: **Dr. John Hall, Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS 39216.** Equal Opportunity Employer. Minority/Female/Disabled/Veteran.

#### ASSISTANT/ASSOCIATE PROFESSOR Genetic/Molecular Mechanisms of Disease

The Department of Comparative Medicine, Schools of Medicine and Dentistry, University of Alabama at Birmingham (UAB) invites applications for a tenure-track position at the rank of **ASSISTANT or ASSOCIATE PROFESSOR.** We seek an independent investigator of genetic and molecular mechanisms in disease pathogenesis. Research should complement existing strengths in Alzheimer's disease, disorders of fatty acid/energy metabolism, interstitial cystitis, mycoplasma genetics/host defense, prostate cancer and transgenic/embryonic stem cell modeling. Investigators using innovative approaches to animal modeling and molecular genetics are encouraged to apply. Institution has strong tradition of interdisciplinary collaboration and excellent core facilities. Teaching responsibilities are modest and primarily at the graduate level. The Department of Comparative Medicine has an NIH-funded training program and cosponsors the Graduate Program in Molecular and Cellular Pathology with the Department of Pathology. Send curriculum vitae to: **Philip A. Wood, Chair of Search Committee, Department of Comparative Medicine, Schools of Medicine and Dentistry, UAB, Birmingham, AL 35294-0019.** FAX: 205-975-4418. UAB is an Equal Opportunity/Affirmative Action Employer and encourages women and minorities to apply.

## POSITIONS OPEN

### ASSISTANT PROFESSOR

The Department of Biology at the University of New Mexico (UNM) is seeking applicants who do research in any area of comparative Animal Physiology for a full-time, tenure-track position as an **ASSISTANT PROFESSOR**, to begin August 19, 1996, pending budgetary capability. Minimum requirement: Ph.D. in relevant field. Preferred characteristics: postdoctoral experience; an innovative and conceptually-based research program as reflected in publications and other scholarly activities; and a commitment to excellent teaching. The successful applicant will be expected to establish an independent research program, to participate enthusiastically in the undergraduate and graduate teaching programs, and to contribute to departmental service activities. Send letter of application, curriculum vitae, representative reprints, statements of research and teaching interests, and at least three letters of reference to:

**Chair, Animal Physiologist Search Committee  
Department of Biology  
The University of New Mexico  
Albuquerque, NM 87131-1091.  
Telephone: 505-277-3411  
FAX: 505-277-0304**

Complete applications must be received by November 17, 1995. UNM is an Equal Opportunity/Affirmative Action Employer and Educator.

### THE KENNEDY KRIEGER INSTITUTE THE JOHNS HOPKINS SCHOOL OF MEDICINE

The Kennedy Krieger Research Institute, in conjunction with the Departments of Molecular Biology and Genetics and Neuroscience of The Johns Hopkins School of Medicine, is in search of an individual to develop a strong independent research program in an area broadly related to the expression, regulation, and/or delivery of genes in the central nervous system. Outstanding candidates with expertise in any area of molecular and/or cellular biology will be seriously considered. The successful candidate must have an M.D. and/or Ph.D. degree and a strong interest in developing multidisciplinary collaboration within a diverse research division that includes an expanding program in CNS gene delivery. Level of **FACULTY APPOINTMENT** will be commensurate with experience. Interested individuals should send curriculum vitae, a brief statement of research plans, and three references to: **John Laterra, M.D., Ph.D., Department of Neurology, The Kennedy Krieger Research Institute, 707 North Broadway, Baltimore, MD 21205.** An Equal Opportunity Employer.

### CELL ADHESION AND EXTRACELLULAR MATRIX BIOLOGY

The Department of Cell Biology in the Schools of Medicine and Dentistry, together with the Cell Adhesion and Matrix Research Center at the University of Alabama at Birmingham (UAB), invite applications for one full-time tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR LEVEL.** Competitive applicants will have a Ph.D. degree or equivalent, postdoctoral experience, and a record of innovative research productivity. The Department is committed to working with the newly formed Center in strengthening the research base in all aspects of cell adhesion and matrix biology. The successful candidate will be expected to develop a strong, extramurally funded research program, participate in student training, and contribute to departmental and Center responsibilities associated with graduate and professional student teaching. UAB is ranked in the top 20 institutions in NIH-funded research and offers a highly interactive environment with state-of-the-art facilities. The appointee will be located in the Center among many colleagues with related research interests. Salaries and start-up funds are competitive and will be commensurate with the appointee's qualifications. Applications, including the names of three referees, a current curriculum vitae, a summary of past accomplishments and of future research plans, should be sent by November 17, 1995 to: **John R. Couchman, Ph.D., Director, Cell Adhesion and Matrix Research Center, The University of Alabama at Birmingham, Volker Hall 201C, Birmingham, AL 35294-0019.**

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

## POSITIONS OPEN

### DIRECTOR GENE TECHNOLOGIES LABORATORY

Applications are sought from individuals with capabilities and interests in supervising and developing modern techniques for analysis of genes and their functions. Management of a state-of-the-art DNA sequencing and synthesis laboratory that provides services and training to the campus community is the primary responsibility. Laboratory personnel presently include three full-time and two part-time technicians. Major equipment includes an ABI 373A sequencer, a Biomek 2000 robotic workstation, several oligonucleotide synthesizers, and a Fujix BAS 2000 phosphorimaging system. Since opportunities exist for the expansion of services for localization of macromolecules and video imaging, familiarity with SUN and Silicon Graphics workstations, imaging instrumentation, light microscopy and computer programs and interfaces is highly desirable. Candidates will have a Ph.D. and demonstrated practical experience in molecular biological techniques. The position carries a competitive 12-month salary plus benefits. Informal inquiries by Email: **tim@bio.tamu.edu** or FAX: **409-862-4098** are encouraged; applicants should send a curriculum vitae and names of three references to: **Dr. Timothy C. Hall, IDMB, Texas A&M University, College Station, TX 77843-3155.**

Comparative Animal Physiologist. **ASSISTANT PROFESSOR**, tenure-track, beginning August 1996. Teach animal physiology and develop course in comparative physiology. Participate in health related service courses. Conduct research involving undergraduate and M.S. students. Ph.D. in physiology and demonstrated commitment to teaching and research required. Postdoctoral experience preferred. Send curriculum vitae, statements of research and teaching interests, and three letters of reference to: **Department of Biology, Western Kentucky University, 1 Big Red Way, Bowling Green, KY 42101-3576.** Review of applications begins January 1, 1996. Open until filled. Women and minorities encouraged to apply. Affirmative Action/Equal Opportunity Employer.

### MAYO CLINIC

**RESEARCH ASSOCIATE/POSTDOCTORAL POSITION** available immediately to study renal proximal tubule transport of sodium related to hypertension and phosphate related to renal failure. A strong background in renal physiology and/or cell biology of epithelial cell tight junction function or dopamine/serotonin metabolism or prostaglandin metabolism preferred. Send inquiry with summary of experience, availability, and curriculum vitae to: **Dr. Franklyn G. Knox, Head, Nephrology Research Unit, Departments of Medicine and Physiology, Guggenheim 9, Mayo Clinic, Rochester, MN 55905.** FAX: 507-266-4710. Email: **knox.franklyn@mayo.edu** Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.

A **POSTDOCTORAL POSITION** is available for an individual with expertise in molecular biology and/or protein chemistry. This ongoing research focuses on signal transduction pathways of macrophage activation and tolerance to bacterial endotoxins.

Send curriculum vitae and two reference letters to: **Dr. James A. Cook, Professor of Physiology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.** Telephone: 803-792-2978; FAX: 803-792-4423; Email: **james\_cook@smtpgw.musc.edu.** Grant requires U.S. citizenship or permanent resident status.

### POSTDOCTORAL/RESEARCH ASSOCIATE

For research on xenobiotic metabolism enzymes, mechanisms of carcinogenesis, and inhibition of carcinogenesis. Preference will be given to applicants with Ph.D. and prior experience in molecular and cell biology, molecular pathology, pharmacology, or enzymology. Send curriculum vitae, summary of research experience, and names of three references to: **Dr. Chung S. Yang, Professor, Laboratory for Cancer Research, College of Pharmacy, Rutgers University, Piscataway, NJ 08855-0789.** FAX: 908-445-0687. Equal Opportunity Employer.

### POSTDOCTORAL POSITION

Available immediately to study signal transduction in renal epithelial cells. Prior experience in molecular biology desirable. Send or FAX résumé and names and addresses of two references to: **Dr. Eleanor Lederer, Kidney Disease Program, University of Louisville, Louisville, KY 40292.** FAX: 502-852-7643.

Howard Hughes Medical Institute

# Predoctoral Fellowships in Biological Sciences

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## 1996 Competition

80 Fellowships will be awarded by the Howard Hughes Medical Institute for study toward a Ph.D. or Sc.D. degree in the biological sciences listed below. Awards, based on an international competition, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution with appropriate degree programs.

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## Fellowship Terms

- Full-time study toward the Ph.D. or Sc.D.
- Up to five years of support possible
- \$14,500 annual stipend
- \$14,000 annual cost-of-education allowance

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## Fields of Study

- Eligible fields:

biochemistry	genetics	pharmacology
biophysics	immunology	physiology
biostatistics	mathematical biology	structural biology
cell biology	microbiology	virology
developmental biology	molecular biology	
epidemiology	neuroscience	

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## Eligibility

- Beginning graduate study (prior study toward an M.P.H. or a medical degree does not rule out eligibility)
  - college seniors
  - first year graduate students
  - medical students and physicians (M.D., D.O., D.D.S., or D.V.M.) not past the first year of a Ph.D. or Sc.D. degree program
- Not in a funded M.D./Ph.D. program
- No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

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## Schedule

Application deadline: November 3, 1995

Awards announced: early April 1996

Fellowships start: June 1996–January 1997

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## 1996 Program Announcements, Eligibility Guidelines, and Applications

Hughes Fellowship Program

The Fellowship Office

National Research Council

2101 Constitution Avenue

Washington, DC 20418, United States of America

Telephone: (202) 334-2872

Fax: (202) 334-3419

E-mail: [infofell@nas.edu](mailto:infofell@nas.edu)

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.



## POSITIONS OPEN

**POSTDOCTORAL POSITION** available to study the biochemical pathways and second messenger systems regulating transmitter release, membrane excitability, and sensitization in dorsal root ganglion sensory neurons and spinal cord neurons. Experience with electrophysiological recording techniques using both isolated cells and tissue slices is preferred. Send curriculum vitae, summary of research interests, and names of three references to: **Dr. Michael Vasko, Department of Pharmacology and Toxicology, Indiana University School of Medicine, Indianapolis, IN 46202-5126. FAX: 317-274-1560; Email: vaskom@indyvax.iupui.edu.** *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

**Cell Biologist/Morphologist POSTDOCTORAL POSITION** to work in the area of steroid hormone action and aging. Experience in immunocytochemistry/in situ hybridization will be useful. Opportunity to learn molecular biology from a group of ten interacting investigators. Send curriculum vitae and names of three references to: **Dr. Arun K. Roy, Professor of Cellular and Structural Biology, The University of Texas Health Science Center, San Antonio, TX 78284. FAX: 210-567-3846.** *The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to study the role of axon sprouting in epileptogenesis. Studies will involve extracellular and whole cell patch clamp recording, single neuron labeling in brain slices, and confocal microscopy. Experience with at least one of these techniques is required. Send curriculum vitae and names of two references to: **Dr. J. Victor Nadler, Department of Pharmacology, Box 3813, Duke University Medical Center, Durham, NC 27710. FAX: 919-681-8609; Email: nadler002@acpub.duke.edu.** *Duke University is an Affirmative Action/Equal Opportunity Employer.*

Laboratory for Biomaterials Research/Department of Chemistry at Rutgers University has openings for **POSTDOCTORAL ASSOCIATES** with expertise in synthesis, polymer science, or tissue engineering. Starting salary: \$30,000 plus excellent benefits. Outstanding prior research accomplishments and proficiency in English required. Send résumé, current U.S. visa status, and names of three references to: **Wright-Ricman Laboratories, P.O. Box 939, Piscataway, NJ 08855-0939.** *Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available to study human cytomegalovirus glycoproteins that function in tissue tropism and pathogenesis in polarized epithelial cells and neurons. Previous research experience in molecular and cellular biology desirable. Interested candidates should submit curriculum vitae and names of three references to: **Dr. Lenore Pereira, University of California San Francisco, HSW-604, San Francisco, CA 94143-0512.** *An Equal Opportunity/Affirmative Action Employer.*

Applications are being accepted for a **POSTDOCTORAL** research position. The researcher will be applying geostatistics to optional estimation of pest density surfaces, in a two-year project funded by the U.S.D.A. A PhD in geology, biology, or statistics is required. Interested applicants should send a résumé, a copy of college transcripts, and three letters of reference to: **Gloria Rowan, West Virginia Geological Survey, P.O. Box 879, Morgantown, WV 26507** by the deadline date of October 14, 1995. The salary range for this position is \$23,186 to \$26,403 plus fringe benefits. If any questions please call **Telephone: 304-594-2331 ext. 320.** *An Equal Opportunity Employer.*

### POSTDOCTORAL POSITIONS MOLECULAR BIOLOGY OF HIV

Positions are available immediately to study determinants of HIV infectivity and analyze HIV accessory gene product. A background in biochemistry and molecular biology is desirable. Send curriculum vitae and names of three references to: **Mario Stevenson, Ph.D., Program in Molecular Medicine, University of Massachusetts Medical Center, 373 Plantation Street, Worcester, MA 01605.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### BATES COLLEGE RESEARCH ASSOCIATE/POSTDOCTORAL

Bates College seeks a **RESEARCH ASSOCIATE/POSTDOCTORAL** for a one-year position with W. G. Ambrose to assist NSF-funded research on carbon processing in Arctic sediment. Duties include: identification of benthic invertebrates, statistical analyses, and assisting in preparing manuscripts. Background in marine benthic ecology/oceanography and statistical analyses required—with knowledge of SAS and graphical software highly desirable. Ph.D. preferred but will consider Master's with extensive experience. Strong computer skills are required. Must send curriculum vitae and the names and telephone numbers of three references, along with representative reprints, to be considered for this position, no later than October 31, 1995 to:

**Research Associate/Postdoctoral Search Committee  
Bates College  
Personnel Office  
215 College Street  
Lewiston, ME 04240**

*Bates College values a diverse college community and seeks to assure equal opportunity through a continuing and effective Affirmative Action program. We welcome applications from women and minorities.*

### POSTDOCTORAL POSITION

A **POSTDOCTORAL POSITION** is available immediately to identify and study the function of pH-dependent inhibitors of cell death induced by hypoxic injury. This project involves RNA isolation, construction of subtractive cDNA libraries, differential screening, DNA sequencing, subcloning and gene expression, protein purification, N-terminal amino acids sequencing, generation on monoclonal and/or polyclonal antibodies, transposon mutagenesis, and antisense strategies to suppress expression of specific genes. Send curriculum vitae and three letters of recommendation to: **Dr. Brian Herman, Professor, Department of Cell Biology and Anatomy, University of North Carolina at Chapel Hill, CB No. 7090, 232 Taylor Hall, Chapel Hill, NC 27599-7090.**

### POSTDOCTORAL/RESEARCH ASSOCIATE

Available immediately to join an NIH-funded study of dynein ATPases in *Chlamydomonas reinhardtii*. Must have doctoral degree or equivalent, with expertise in molecular biology, genetics, or cell motility preferred. Lab interests include regulation of flagellar motility and dynein structure-function analysis through characterization of motility mutants and expression of cloned genes. Send résumé to: **Dr. David R. Mitchell, Department of Anatomy and Cell Biology, State University of New York Health Science Center, 766 Irving Avenue, Syracuse, NY 13210.** Curricula vitae will be accepted until position is filled. *An Affirmative Action/Equal Employment Opportunity Employer.*

### POSTDOCTORAL POSITION

An immediate opening is available for a National Institute of Health Lung Disease Training Grant funded position to study the cellular and molecular basis of immune reactivity in patients afflicted with allergic bronchopulmonary aspergillosis (ABPA). Some experience in T cell cloning, cytokines, and molecular biology is desirable. *By terms of the federal grant the position is limited to U.S. citizens or resident aliens.* Send curriculum vitae and references to: **Clifford J. Bellone, Ph.D., Department of Molecular Microbiology and Immunology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.**

**POSTDOCTORAL POSITIONS** available immediately to study (1) genes involved in tumor progression, and/or (2) molecular epidemiology of tobacco related cancer. A strong background in molecular biology and biochemistry is required for both positions. Experience in epidemiological studies desirable. Please send curriculum vitae, a brief statement of research interests and names and telephone numbers of three references to: **Philip Lazarus, Ph.D., Department of Pathology and Laboratory Medicine, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, PA 19140. FAX: 215-707-2781.** *Temple University is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from minorities and women.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION

A **POSTDOCTORAL POSITION** is available immediately to study molecular mechanisms of resistance to antitumor drugs, in particular those agents that interact with DNA topoisomerase II. Projects include resistance mechanisms conferred by oncoproteins/tumor suppressor proteins that inhibit apoptosis, and molecular investigations of topoisomerase II gene regulation. Research experience in molecular and/or cell biology is necessary. Interested applicants should send a brief description of research experience, curriculum vitae, and three letters of recommendation to: **Richard B. Lock, Ph.D., The J. Graham Brown Cancer Center, Departments of Medicine and Biochemistry, 529 South Jackson Street, University of Louisville, Louisville, KY 40292. Email: rblock01@roentgen.bcc.louisville.edu.** *The University of Louisville is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION

#### Molecular Cytogenetic Studies of Prostate Cancer

An immediate position is available to characterize specific molecular genetic and molecular cytogenetic alterations important for the initiation and progression of prostate carcinoma. The position is funded for one year with potential for extension into a second year. Potential studies include chromosomal deletion mapping by *in situ* hybridization and loss of heterozygosity analysis, DNA mutation screening and sequencing, and somatic cell genetic experiments. A strong background in molecular genetics and/or molecular cytogenetics is desirable. Applicants should mail/FAX their curriculum vitae and the names and FAX numbers of three qualified references to: **Dr. Robert B. Jenkins, Division of Laboratory Genetics, Mayo Clinic, 200 First Street SW, Rochester, MN 55905. FAX: 507-284-0043.** Applications will be accepted until October 30, 1995.

### TWO POSTDOCTORAL POSITIONS

#### Nitrogen Transport/Landscape Ecology Smithsonian Environmental Research Center

One **POSTDOCTORAL** would use field studies and simulation models to investigate rates and controls of nitrogen gas production in the surface soils and groundwater of a riparian forest receiving nitrogen from adjacent cornfields. Contact: **Dr. Thomas Jordan, jordan@serc.si.edu.** The other postdoctoral would use GIS-based landscape models to study the effects of geology and land use arrangement on nutrient discharges from watersheds throughout the Chesapeake Bay drainage. Contact: **Dr. Donald Weller, weller@serc.si.edu.** Send curriculum vitae, research interests, and names of referees by November 10, 1995. **SERC, P.O. Box 28, Edgewater, MD 21037.**

### POSTDOCTORAL POSITION

#### Plant Drought Responses

Two to three year project investigating stomatal responses of plants (including crops) to drought. Two goals are to a) differentiate relative role of root versus leaf signals in causing the stomatal response, b) determine the mechanism, magnitude, and significance of reduced hydraulic conductance in plants during drought. Experience with gas exchange and water relations methodologies is necessary. Send curriculum vitae and names, telephone, and fax numbers of three references to: **Dr. John Sperry, Department of Biology, University of Utah, Salt Lake City, UT 84112. Email: sperry@biology.utah.edu.** *The University of Utah is an Affirmative Action/Equal Opportunity Employer. It encourages applications from women and minorities and provides reasonable accommodation to the known disabilities of applicants and employees.*

### POSTDOCTORAL POSITION

A **POSTDOCTORAL POSITION** is available to study the role of apoptosis in cervical cancer. These studies involve the generation of transfected cell lines expressing various HPV early proteins and modulators of apoptosis, as well as *in situ* hybridization and immunocytochemical analysis of the expression of apoptotic modulators in clinical samples. Send curriculum vitae and three letters of recommendation to: **Dr. Brian Herman, Professor, Department of Cell Biology and Anatomy, University of North Carolina at Chapel Hill, CB No. 7090, 232 Taylor Hall, Chapel Hill, NC 27599-7090.**

## FACULTY POSITION IN VERTEBRATE DEVELOPMENTAL BIOLOGY

The Center for Advanced Biotechnology and Medicine (CABM) and the Department of Pediatrics, UMDNJ-Robert Wood Johnson Medical School are seeking an outstanding investigator for joint appointment as a tenure-track faculty member. Applicants should hold a Ph.D. and/or M.D. degree and have a strong commitment to studying fundamental aspects of vertebrate development and differentiation. The successful candidate will occupy laboratory space in the CABM building and join a vibrant and rapidly expanding life sciences community with participation in UMDNJ and Rutgers University graduate programs. The position is extremely competitive with regard to start-up funds, laboratory space, salary and benefits. Please send a C.V., brief research plan, and names of 3 references to: **Dr. Aaron J. Shatkin and Dr. David H. Carver, CABM/Pediatrics Search Committee, 679 Hoes Lane, Piscataway, NJ 08854-5638.** The University of Medicine and Dentistry of New Jersey is an Affirmative Action/Equal Opportunity Employer, m/f/d/v, and a member of the University Health System of New Jersey.



## SUNY HEALTH SCIENCE CENTER AT SYRACUSE

### FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

We invite applications for two tenure-track positions. While we expect to make appointments at the **ASSISTANT PROFESSOR** level, candidates at higher levels also will be considered. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. However, one of the positions is dedicated to protein structure/function. Applicants must have a Ph.D., M.D. or equivalent degree, postdoctoral experience, demonstrated research productivity and a commitment to excellence in teaching medical and graduate students. Send letter of application (with curriculum vitae and summary of research plans) and have three letters of reference forwarded to: **Dr. Harvey S. Penefsky, Chair, Search Committee, Department of Biochemistry and Molecular Biology, State University of New York Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210.** Review of applications will begin November 1, 1995, and continue until the positions are filled.

*An Affirmative Action/Equal Employment Opportunity/ADA Employer.*

**SUNY**

## POSTDOCTORAL RESEARCHERS

**The Genentech Postdoctoral Program consists of more than 50 Researchers and is a vibrant and intensive environment for advanced scientific training. Postdoctoral Researchers conduct basic research in the areas of our scientific interest, publish in scientific journals, attend and present work at scientific conferences and maintain close ties with the academic community. Several positions are available for outstanding candidates in the fields of:**

### Cardiovascular Research: Two positions are available.

One position will focus on the regulation of angiogenesis. The successful candidate will have the opportunity to investigate the role of VEGF and other factors in normal and abnormal angiogenesis by molecular, cellular and in vivo approaches. Candidates should have a PhD/MD degree with a strong background in cell biology/molecular biology. An interest in peptide growth factors and vascular biology is necessary. See *Science* 246, 1306 (1989); *Science* 255, 255 (1992); *PNAS* 89, 698 (1992); *Nature* 362, 841 (1993); *J. Biol. Chem.* 269, 25646 (1994); *NEJM* 331, 1480 (1994). Manager: Dr. Napoleone Ferrara. Reference: PDNF.

The other position will focus on cardiac hypertrophy and heart failure. The successful candidate will use novel cloning approaches, combined with mouse gene knockout and transgenic technology, to identify and study genes involved in hypertrophy. Qualified candidates will have a PhD or MD and demonstrated expertise in molecular cloning and cell biology. Experience in mouse genetics would be an advantage, and an interest in molecular cardiology is necessary. Manager: Dr. David Lowe. Reference: PDDL.

### Protein Engineering

A postdoctoral research position exists in the protein NMR group. The main focus of the group is to apply and develop techniques for studying protein structure and dynamics. In addition, the group undertakes studies of biologically active peptides and small molecules with particular emphasis on determining their conformations. The NMR facility is part of the Protein Engineering Department and complements protein engineering, protein crystallography and modeling efforts. Suitable applicants must have experience in biomolecular NMR spectroscopy and preferably in protein structure determination. Molecular biology and/or protein chemistry experience would be advantageous. See *Biochemistry* 33, 8897-8904 (1995); *J. Mol. Biol.* 242, 252-270 (1994); *Biochemistry* 33, 13581-13592 (1994); *Biochemistry* 34, 5329-5342 (1995). Manager: Dr. Wayne Fairbrother. Reference: PDWF.

### Pharmacokinetics & Metabolism

A position is available to study the mechanisms of uptake and intracellular transport of growth factors. The research will focus on understanding the specific function(s) that ligands targeted to the nucleus play(s) in the overall biological response of the cell. Recent PhD or MD with strong background in biochemistry and molecular biology is required. Prior experience with cell fractionation, confocal and immunoelectron microscopy is desirable. Manager: Dr. Gilbert Keller. Reference: PDGK

### Endocrine Research

A position is available to explore the metabolic consequences of hormonal gene knockout or attenuation in animal models of human disorders. The practical ability to address key questions that range from molecular to organ system preferred. A competitive individual will have had a predoctoral tenure in an outstanding program, with ample evidence of productivity, creativity and impact research. See *Journal of Clinical Investigation* 95:2258-2265 (1995); *Endocrinology*, Vol 1 (3rd ed), pp 280-302 (1995). Manager: Dr. Michael Cronin. Reference: PDMC

### Molecular Oncology

A position is available to study hematopoietic stem cell development. The successful candidate will utilize molecular, cellular and genetic approaches to identify and study genes that control commitment, differentiation, and self-renewal of the hematopoietic stem cell. See *Cell*, 65, 1143 (1991); *Blood* 84, 2422 (1994); *Blood* 84, 4045 (1994) and *PNAs*, 92, 1866 (1995). Manager: Dr. Bill Matthews. Reference: PDBM

### Two postdoctoral positions will be available in April 1996 to investigate the pathogenesis of diabetes.

One position is for a cellular immunologist to investigate the role of interferons in autoimmune diseases. See: *Diabetes* 44, 685 (1995); *Immunity*, 1, 469 (1994); *Science* 260, 1942 (1993); *Science* 259, 1739 (1993). Manager: Dr. Tim Stewart. Reference: PDTST

Another position is available for a molecular/cellular biologist to study the development and function of the beta cell or the control of insulin signalling. See: *Nature* 373, 448 (1995); *Cell*, Vol 83, pp 1-20 (1995); *J. Biol. Chem.*, Vol 270, Issue 39 (1995). Manager: Dr. Tim Stewart. Reference: PDTST

Genentech offers an excellent salary and benefits package which includes free health club membership and fully paid medical, dental and vision coverage. Please send your resume to Genentech, Inc., Human Resources, Attn: Reference XXXX (see code in above job descriptions), 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

**Genentech, Inc.**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH IN RNA PROCESSING

**POSTDOCTORAL POSITIONS** are available immediately in the area of RNA processing. The projects involve: 1) the analysis of the splicing mechanism used by a newly recognized class of metazoan nuclear introns (Hall and Padgett, *J. Mol. Biol.* 239:357-365, 1994); 2) detailed studies of the fundamental splicing mechanisms of spliceosomal and self-splicing introns using site specific modifications of the RNA (Podar *et al.*, *Mol. Cell. Biol.* 15:4466-4478, 1995). Experience in molecular biology, biochemistry, and/or chemistry is desirable. Send curriculum vitae and names, addresses, and telephone and FAX numbers of three references to: **Dr. Richard A. Padgett, Department of Molecular Biology, The Cleveland Clinic Foundation, 9500 Euclid Avenue-NC20, Cleveland, OH 44195.** *The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH SCIENTIST

Position available to work in clinical laboratory studying human motor physiology and the quantitative assessment of movement disorders. Applicant must have Ph.D. in biomedical engineering or equivalent; expertise in signal processing, biologic data acquisition techniques, electronics and programming. Experience in single unit neuronal recording and expert systems is preferred. Send curriculum vitae and three letters of reference to: **Dr. Seth Pullman, Director, Clinical Motor Physiology Laboratory, The Neurological Institute, Columbia-Presbyterian Medical Center, 710 West 168th Street, New York, NY 10032.** *We are an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION BIOCHEMISTRY/MOLECULAR BIOLOGY

A position is available to study the *in vitro* DNA binding properties of pathogenic anti-DNA autoantibodies isolated from lupus patients. Applicants must possess expertise in molecular biology and biochemistry including cloning, expression, and purification of recombinant proteins. This position is available for up to three years. Interested individuals should submit a curriculum vitae and names of three references to: **Dr. Gary D. Glick, University of Michigan, Department of Chemistry, 930 North University Avenue, Ann Arbor, MI 48109-1055.**

### CLATHRIN COATED PITS AND COATED VESICLES

Join us as a **POSTDOCTORAL FELLOW** to help discover the molecular mechanism responsible for membrane protein sorting by clathrin coated pits and coated vesicles (see *Science*, this issue and *Current Biology*, October 1995). A strong background in biochemical techniques and in cell and molecular biology is required. Send curriculum vitae and two reference letters to: **Dr. T. Kirchhausen, Harvard Medical School, 200 Longwood Avenue, Boston, MA 02115.** FAX: 617-278-3131.

### POSTDOCTORAL POSITION Host Defense-Bacterial Pathogenesis

A **POSTDOCTORAL POSITION** to investigate the molecular basis of the antimicrobial activity of lactoferrin is available immediately at the University of Massachusetts Medical School in the laboratories of **Dr. Richard Ellison and Jon Goguen** for an ongoing NIH award. The applicant should have a Ph.D. and knowledge of bacterial genetics and molecular biology; experience in protein characterization and tissue culture would be advantageous. Please send curriculum vitae, a letter describing research experience, and the names of three references to: **Dr. Richard T. Ellison III, Division of Infectious Diseases, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655.** Telephone: 508-856-3158; FAX: 508-856-5981. *The University of Massachusetts is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION

Available immediately to study signal transduction in neutrophils. Prior experience in molecular biology or cellular biochemistry required. Send or FAX résumé and names and addresses of two references to: **Dr. Kenneth R. McLeish, Kidney Disease Program, University of Louisville, Louisville, KY 40292.** FAX: 502-852-7643.

## POSITIONS OPEN

### PRE- AND POSTDOCTORAL FELLOWSHIPS MOLECULAR PARASITOLOGY

The Molecular Parasitology Training Program in the Division of Biological Sciences, University of Georgia has immediate openings for **PRE- AND POSTDOCTORAL FELLOWS** with an interest in the Molecular and Cell Biology of Parasites and Vectors. This NIH-sponsored program offers training in parasitology with emphasis in the areas of molecular biology, biochemistry, immunology, cell biology, and vector biology. With a staff of 20 faculty participants from the University of Georgia and the Centers for Disease Control, this program combines the expertise of classical and modern parasitologists and immunoparasitologists with that of molecular biologists, cell biologists, and biochemists to provide comprehensive and modern training in molecular parasitology. *Funding is restricted to U.S. citizens or permanent residents.* For further information contact: **Molecular Parasitology Training Program, Department of Cellular Biology, University of Georgia, Athens, GA 30602.** *The University of Georgia is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to study novel amplified genes in human tumors. Techniques being utilized include microdissection, PCR amplification, fluorescent *in situ* hybridization (FISH), as well as routine molecular biological techniques. This project includes collaboration with members of the Human Genome Project at The University of Texas Health Science Center at San Antonio. Required: Ph.D. with strong background in molecular biology. Experience with cytogenetics and FISH preferable. Send curriculum vitae, description of research training and experience, and names and addresses of three references to: **S. Gail Eckhardt, M.D., c/o Personnel Department, Cancer Therapy and Research Center, 8122 Datapoint Drive, Suite 600, San Antonio, TX 78229.** *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available to participate in two NIH-funded multidisciplinary research projects: gene regulation and the physiological role of brain neurokinin receptors and the regulation of neurotransmitter transporter gene expression and function. Send curriculum vitae and three letters of reference to: **Dr. Michael J. Bannon, Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, 540 East Canfield, 2309 Scott Hall, Detroit, MI 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** to study regulation of development by homeodomain proteins in the model basidiomycete fungus, *Schizophyllum commune*. See *PNAS*, 89:7169-7173 and 7174-7178; *BBRC*, 211:1071-1076. Experience in all standard techniques of recombinant DNA analysis, protein expression, protein-protein and protein-DNA interactions essential. Forward résumé, statement of research interests, and three letters to: **Dr. Charles P. Novotny, Department of Microbiology and Molecular Genetics, University of Vermont, Burlington, VT 05405.** Telephone: 802-656-1119; FAX: 802-656-8749; Email: RULLRICH@MOOSE.UVM.EDU.

### BIOMEDICAL ENGINEER

KRUG Life Sciences Biotechnology Laboratory at the NASA Johnson Space Center invites applicants to fill the position of **BIOMEDICAL ENGINEER**. Applicants must have a Ph.D. or equivalent experience in engineering or physical science with a strong engineering background. The successful candidate will develop significant research programs to deliver state-of-the-art sensor systems for detection of nutrients, waste products, and biomolecules in cell cultures grown in microgravity bioreactors. Excellent communication skills and the ability to work independently on multiple high visibility projects are required. The ideal candidate must be an extensive and original thinker able to identify, plan, and perform project ideas and to work within an interdisciplinary group of researchers and engineers.

Interested applicants should submit curriculum vitae, a description of career goals and research objectives, list of three references, and salary history, indicating Position No. 95-122-33 to: **KRUG Life Sciences Inc., Human Resources Department, P.O. Box 58827, Houston, TX 77258-8827.** Email: jhoose@medics.jsc.nasa.gov. Employment Eligibility Verification Requested. *Equal Opportunity Employer/Minorities/Female/Handicapped/Veteran. Smoke-free workplace.*

## POSITIONS OPEN



**MEDICINAL CHEMISTS:** Adolor Corporation, a new biopharmaceutical company, is seeking applicants for the following positions: 1) Medicinal chemists at all levels to design and prepare compounds for its opiate analgesia programs. 2) *In vivo* pharmacologists at the B.S./M.S. level to conduct testing of novel analgesics. Applicants for all positions should have at least two to five years of relevant industrial experience. Please send résumé to: **LS, Adolor Corporation, 395 Phoenixville Pike, Malvern, PA 19355.**

### RESEARCHER University of Wisconsin-Madison

A position is available immediately in the University of Wisconsin-Madison's Biotechnology Center. The individual will work both in service and research activities of the Transgenic Animal Facility. Duties include production of transgenic mice and rats by pronuclear microinjection techniques, production of chimeric mice by embryo aggregation and microinjection of embryonic stem cells into blastocysts, management of animal colonies, improvements in transgenic rat technology, and the generation of transgenic rat models for breast cancer research. A M.S. or Ph.D. degree in a related area is required plus at least two years of experience with the generation of transgenic mice by pronuclear microinjection, animal husbandry, and the management of animal colonies. Experience with rat transgenic technology or embryonic stem cell culturing/mouse blastocyst microinjection technology is desirable. Please send curriculum vitae, summary of research experience, and the names of three references to: **Dr. Anne E. Griep, Director UWBC Transgenic Animal Facility, c/o Barbara Whitnall, University of Wisconsin Biotechnology Center, 1710 University Avenue, Madison, WI 53705.** *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** are available immediately to investigate: (i) the signal transduction mechanisms of neuronal dopamine receptors; and (ii) the regulation of expression of dopamine genes. Prior experience in receptor biochemistry or molecular biology desirable. Please send curriculum vitae and names and telephone numbers of three references by FAX: 202-687-0279 or by mail to: **Dr. Anita Sidhu, Georgetown University Medical Center, Box 17, 3900 Reservoir Road, NW, Washington, DC 20007.** *Affirmative Action/Equal Opportunity Employer.*

### INSTRUMENTATION SPECIALIST

The University of Wisconsin-Madison is seeking a person for the position of **INSTRUMENTATION SPECIALIST**. Responsibilities include overseeing the development, operation, and growth of a campus biophysics instrumentation facility, and training students in the theory and application of microcalorimetry, CD and FTIR spectroscopy, analytical ultracentrifugation, and surface plasmon resonance detection. A Ph.D. in biophysics (or a related discipline) is desirable and experience with a wide range of biophysics instrumentation is required. Collaborative research with faculty and students is expected. Salary range: \$27,125 to \$33,000. Candidates should send a current, complete résumé and three letters of reference to: **Cheryl Adams, University of Wisconsin-Madison, Department of Biochemistry, 420 Henry Mall, Madison, WI 53706-1569.** To receive full consideration, all application materials must be received by November 3, 1995. *UW-Madison is an Affirmative Action/Equal Opportunity Employer and encourages women and minorities to apply.*

### SCIENTIFIC WRITER

Full time. Working knowledge of organic chemistry and biochemistry needed. M.S. or Ph.D. in chemistry, biology, or pharmacology preferred. The individual will be asked to help prepare reports, grant applications, patents, manuscripts, etc. Send résumé and writing samples to: **R. J. Bergeron, Department of Medicinal Chemistry, P.O. Box 100485, Gainesville, FL 32610-0485.** FAX: 904-392-8406. No telephone calls please.



**The University of Texas Southwestern Medical School  
announces**

**Program of Excellence in Post Graduate Research (PEPR)  
Independent Research Fellowships for Physician-Scientists**

The University of Texas Southwestern Medical School has established a program that is designed to replace or supplement the usual postdoctoral fellowship. This program will provide three years of support for independent research carried out by Physician/Scientists in any aspect of biomedical science including the fields of Biochemistry, Genetics, Pharmacology, Molecular and Structural Biology, Immunology, Pathology and Physiology.

**Fellowship Terms**

Three years of support will be provided for a fundamental research project that will be carried out in laboratories at Southwestern Medical School.

- \$50,000-\$60,000 annual stipend, depending on qualifications.
- \$60,000-\$70,000 research support, which includes salary for a Research Assistant.
- \$120,000 for laboratory start-up.
- Access to core facilities for tissue culture, large equipment, etc.
- 800 sq. ft. lab adjacent to other PEPR fellows in new facility (1993).

**Junior Faculty Appointment.**  
Independent laboratory space.

**Eligibility**

People holding both M.D. and Ph.D. degrees required with the first of these degrees awarded no earlier than four years prior to application.

**Application**

Please submit a one-page abstract of the research proposal, together with a curriculum vitae and the names, addresses and telephone numbers of three references. Based on review of these materials, finalists will be invited to submit a more detailed research proposal, not more than eight pages in length.

Applications and inquiries should be addressed to:

PEPR Fellowship Selection Committee  
R. Sanders Williams, MD, Michael S. Brown, MD, Alfred Gilman, MD, PhD,  
and Joseph Goldstein, MD  
The University of Texas Southwestern Medical Center  
5323 Harry Hines Blvd., Dallas, TX 75235-8573  
Telephone (214) 648-1400 FAX (214) 648-1450

*The University of Texas Southwestern Medical Center is an Affirmative Action/  
Equal Opportunity Employer*



## DIRECTOR, BRAIN IMAGING AND ANALYSIS CENTER

Duke University Medical Center seeks an experienced faculty member to direct a new Center for Brain Imaging and Analysis. Facilities for PET, MR, SPECT and functional MRI are available to support the Center. Applicants should have a well established research program in this field, and demonstrated ability to organize a program applying imaging to neuroscientific research. The intent of the new Center is to bring together existing expertise with additional recruits and a substantial investment in new technology to further enhance Duke's presence in this important field.

Applicants should submit a curriculum vitae and reference letters to:  
**Dale Purves, M.D., Chair of the Search Committee, Department of  
Neurobiology, Box 3209, Duke University Medical Center,  
Durham, NC 27710.**

**Duke University  
Medical Center**

Duke University is An Equal Opportunity/  
Affirmative Action Employer.



**WILLIAM  
& MARY**

**DEAN, SCHOOL OF MARINE SCIENCE  
DIRECTOR, VIRGINIA INSTITUTE OF MARINE  
SCIENCE**

**OF THE  
COLLEGE OF WILLIAM AND MARY**

Nominations and applications are invited for the joint position of Dean, School of Marine Science (SMS), and Director, Virginia Institute of Marine Science (VIMS). VIMS/SMS is dedicated to development of new knowledge through programs of research, to graduate education, and to provision of technical advice relating to the marine resources of Virginia.

The academic program offers M.A. and Ph.D. degrees in Marine Science. Regional, national and international research programs encompass a broad spectrum of marine science and marine resource management disciplines, with emphasis on estuarine and coastal waters. At present, the Dean and Director administers a scientific and support staff of approximately 325,60 of whom are academic faculty; an annual operating state general fund budget of approximately \$12.2 million; a research vessel fleet; and a large physical plant including a \$12 million, 60,000 sq. ft. research building under construction. Faculty are organized into five departments: Biological Sciences, Environmental Science, Fisheries Science, Physical Sciences and Resource Management and Policy. The graduate student body numbers approximately 125. In FY 94-95 active extramural research awards were approximately \$16 million.

The successful candidate will be expected to 1) provide outstanding administrative and programmatic leadership to growing academic, research and advisory programs, 2) provide effective communications with and solicit continued support from public, corporate and governmental groups and 3) continue and expand collaboration with other departments, programs and schools at the university. The scholarly achievements of this individual should be appropriate for appointment as a full professor. Nominations, or, in the case of applicants, a letter of application, detailed resume and names and addresses of at least three references, should be sent to:

**Dr. Eugene M. Bureson, Search Chair  
Virginia Institute of Marine Science  
School of Marine Science  
College of William and Mary  
Gloucester Point, Virginia 23062**

Review of applications begins 20 November 1995 and will continue until the position is filled. The preferred starting date for the position is 1 July 1996.

*The College of William and Mary is an Equal Opportunity, Affirmative Action University. Members of underrepresented groups (including people of color, persons with disabilities, Vietnam veterans and women) are encouraged to apply.*

## Director, Regulatory Affairs

**Univax Biologics, Inc.**, founded in 1988, is a biopharmaceutical company engaged in the development and marketing of products that prevent and treat autoimmune and infectious diseases and related complications through activation and targeting of the human immune system. The Company's product pipeline includes vaccines for long-term protection and specific polyclonal antibodies for immediate, short-term protection and therapeutic intervention. Univax has begun marketing its first product, WinRhoSD™, which recently received U.S. Food and Drug Administration regulatory clearance. The Company also has other products in clinical and pre-clinical evaluation.

Univax is seeking a highly skilled Director of Regulatory Affairs with 5-10 years of Regulatory Affairs experience in biologics. The successful candidate will have experience writing and submitting INDs, ELAs, and PLAs. Prior experience communicating or interacting with the FDA is desired. Strong analytical, project management, supervisory and communication skills are required.

Univax offers an excellent compensation package which includes generous life and health insurance benefits, a contributory 401(k) plan, and equity participation programs. For immediate consideration to become part of our team, submit resumes in confidence to:

**UNIVAX  
BIOLOGICS, INC.**

Human Resource Department  
12280 Wilkins Avenue  
Rockville, MD 20852  
Fax (301) 770-3097

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landscape. This network, called "Science's  
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opportunities and advice, and connections to  
mentors and colleagues that will help you find your  
niche. Science's Next Wave ... catch it on October 6th.

<http://sci.aaas.org/nextwave/>

## Science's Next Wave

# University Of Dundee



DEPARTMENT OF ANATOMY & PHYSIOLOGY

## LECTURESHIPS/SENIOR LECTURESHIPS

(£14,317 - £31,357)

Applications are sought from suitably qualified persons for up to 4 positions which may be filled, according to potential and experience, at any level from 5-year fixed-term Lectureship to Senior Lectureship. It is expected that most of the positions will be filled by persons with a strong research track record in some modern area of physiology or cell biology. Applicants are especially encouraged from scientists with an interest in the use of modern molecular biological techniques to study membrane processes. The successful applicants will be required to teach physiology or possibly anatomy to medical, dental and science students. Exceptionally well qualified candidates may be considered for positions as group leaders in the new Biomedical Sciences Institute funded by the Wellcome Trust, CRC, the University and Scottish Enterprise.

Informal enquiries can be made to Professor M J Rennie, Department of Anatomy & Physiology, tel: (01382) 344572; fax (01382) 345514; e-mail: MJRennie@Dundee.AC.UK.

CV (3 copies), complete with the names and addresses of 3 referees, should be sent to Personnel Services, University of Dundee, DD1 4HN, UK. Please quote Reference: EST/10/56/SC.

Closing Date: 25 October 1995

The University exists to promote Higher Education and Research and is an Equal Opportunities Employer.

### DEPARTMENT OF BIOLOGY

## POSTDOCTORAL MOLECULAR BIOLOGISTS

Five scientists are required to work on the molecular mechanisms underlying the control of bone remodelling in the newly founded Smith and Nephew University Research Group, led by Professor Tim Skerry, projects funded by ARC, BBSRC, Smith and Nephew and Wellcome range from two to five years in duration and are concerned with identification and characterisation of genes regulated in bone by osteotropic influences. Experience in bone and or neurotransmitter research is an advantage, but expertise in cell and molecular biology is essential. Techniques which will be used include differential display and RT-PCR, gene cloning, Northern blotting, in situ hybridisation and immunocytochemistry. The group has newly built laboratories, and good collaborative links with other institutions in the UK and abroad.

The aim is to appoint on Grade IA of the research scales, but in exceptional circumstances an appointment may be made on the Grade II scale. Appointments can start immediately.

For further information and details of how to apply, please write to the Personnel Office, University of York, Heslington, YORK YO1 5DD, quoting reference number 3/6610. The closing date for applications is Friday, 20 October 1995.

PROMOTING EXCELLENCE IN TEACHING  
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THE UNIVERSITY *of York*



## PROFESSOR/READER IN PROTEIN ENGINEERING

School of Biology and Biochemistry  
Centre for Peptide and Protein  
Engineering

The University wishes to expand its research in Protein Engineering by appointing a Professor/Reader to provide leadership in the Centre for Peptide and Protein Engineering. The Centre is a cross college, multi-disciplinary research group. Current interests of the Centre include peptide and protease chemistry, molecular enzymology, tumor-derived growth factors, angiogenic peptides, parasite neuropeptides and their receptors, proteolytic processing and aggregative properties of the amyloid-derived peptides and immunoassay development.

Applicants must have a PhD or equivalent in biochemistry, molecular biology or allied subject, an outstanding record in research as evidenced by both substantive grant income and internationally recognised publications which should reflect experience in applying molecular biological techniques to the study of protein function. Proven ability to develop and lead externally funded research programmes and to interact with other researchers in increasing the application of molecular biological techniques to the on-going studies of the Centre and to develop new research themes is essential. Some teaching at tertiary level is desirable.

Preference will be given to applicants with experience in protease catalysis and inhibition, receptor activation and signal transduction, antibody engineering and/or ligand receptor interaction.

Informal enquiries to Dr B Walker (ext 2117).

The position is available from 1 January 1996 or such other date as may be agreed. Salary is within the professorial range/Senior Lecturer salary scale, with eligibility for USS, and there is an attractive package to assist with relocation and resettlement expenses.

Further particulars may be obtained from the Personnel Office, The Queen's University of Belfast BT7 1NN Northern Ireland (telephone (01232) 245133 ext 3044/3246 or FAX (01232) 324944/310629).

Closing date: 24 November 1995.

The University is a charity, established in 1845 to advance education. Committed to an Equal Opportunities policy and selection on merit, it welcomes applications from all sections of the community. Under its affirmative action programme it particularly welcomes applications from women for academic posts.



1845-1995

150 The Queen's University of Belfast



## UNIVERSITY OF TASMANIA

H O B A R T

**Chair in Zoology (Ref No HA 105/95)**

Applications are invited for appointment to the tenured position of Professor of Zoology on the Hobart campus of the University of Tasmania.

The Department of Zoology has an active research program reflecting the unique opportunities provided by Tasmania. It conducts a high quality teaching program which serves undergraduate students enrolled in the BSc and other degrees.

The successful applicant will have achieved internationally recognised distinction in research in a major area of zoology. The appointee must also be strongly committed to excellence in teaching and research training and be able to provide strong leadership in the further development of teaching and research in the Department.

The appointee must be able to contribute significantly to all academic activities in which the Department is involved, including Faculty, School and University committees, to share the wider responsibilities of the professoriate in the University and be willing to be Head of Department.

Further details concerning the post, appointment criteria, the Department of Zoology's teaching, research and resources, and the University are available from the Secretary, Personnel Services telephone: + 61 02 20 2013, facsimile: + 61 02 20 2751.

Enquiries about academic aspects of the post and the strategic directions of the Department should be directed to Associate Professor Robert White, telephone: + 61 02 20 2615, facsimile: + 61 02 20 2745, email: rob.white@zoo.utas.edu.au. The Executive Dean, Professor Paul Haddad, can provide advice on administrative and resource aspects of the School of Science and Technology, telephone: + 61 02 20 2179, facsimile: + 61 02 23 4074, email: paul.haddad@chem.utas.edu.au.

The present professorial salary is \$80,176 pa. In addition, Heads of Department receive a loading of 6% of the standard professorial salary for the term of their appointment to the headship. With the consent of the University, academic staff may also undertake consultative work.

Applications, quoting the reference number and including the names of three referees, should give particular attention to the selection criteria and reach the Director of Personnel Services, University of Tasmania, GPO Box 252C, Hobart, Tasmania, Australia 7001 by Monday 30 October 1995. Applications should be enclosed in an envelope marked *Chair Appointment*.

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IN SHARED WORKPLACES ARE UNIVERSITY POLICY. WOMEN ARE PARTICULARLY ENCOURAGED TO APPLY



The University of Sydney  
AUSTRALIA

## LECTURER/SENIOR LECTURER IN VETERINARY VIROLOGY

Department of Veterinary  
Pathology  
(Renewable)

Reference No. A34/03

Applications are invited from suitably qualified persons for the position of Lecturer/Senior Lecturer in Veterinary Virology in the Department of Veterinary Pathology. The Department of Veterinary Pathology provides undergraduate courses in microbiology, general, clinical and systemic pathology, immunology and parasitology and has a strong research output in each of these disciplines with a vigorous postgraduate research training program. In addition the Department provides a diagnostic pathology service to veterinary clinics. There is a well established laboratory infrastructure and this will be enhanced by occupation of newly refurbished facilities early in 1996.

It is expected that the successful applicant will have a PhD and a strong commitment to research and diagnostic services. Expertise in molecular biology and a research interest in the host-pathogen relationship and immunological response to viral disease, and in vaccine design, would complement other research programs in the Department.

The successful applicant will be required to provide courses in veterinary virology to undergraduate students in the Faculty of Veterinary Science. As part of an ongoing undergraduate curriculum review it is expected that these teaching activities will be progressively integrated with courses provided by other disciplines within the Faculty. A commitment to integrated teaching styles will therefore be an advantage.

An appointment will be made for five years in the first instance with the possibility of renewal for up to a further five years, subject to funding and need. Membership of a University approved superannuation scheme is a condition of employment for new appointees. For further information contact Professor A Husband on 61 2 351 3127.

**Salary:** Lecturer: A\$42,198 - A\$50,111 p.a.  
Senior Lecturer:  
A\$51,692 - A\$59,605 p.a.  
(Level of appointment and responsibility will be commensurate with qualifications and experience)

**Closing:** 26 October 1995

**Method of application for academic positions:** Three copies of the application, quoting Reference No, curriculum vitae, list of publications and the names, addresses and fax numbers of at least three and not more than five confidential referees to: The Personnel Officer, (Group A), Carslaw Building, (F07), The University of Sydney, NSW 2006 AUSTRALIA.

Equal employment opportunity and no smoking in the workplace are University policies. The University reserves the right not to proceed with any appointment for financial or other reasons.

## A U S T R A L I A

Faculty of Science and Technology School of Psychology

## Lectureships in Psychology

(Two tenurable positions and one 4-year fixed term position commencing 1996.)

### Developmental Psychology

Applicants with a high level of research and teaching ability with expertise in any area of Developmental Psychology are encouraged to apply for this tenurable position. The School has excellent dedicated laboratories for research in developmental psychology, with specialised video, photographic and computer equipment. There are good opportunities for access to research subjects through hospitals, educational institutions and maternal and child health centres.

### Psychobiology/Behavioural Neuroscience

Two Lectureships, one in Psychobiology and another in any other specialised area of Psychology or Behavioural Neuroscience, appropriate for teaching in the Psychobiology and Neuropsychology courses. One is tenurable and one fixed term for 4 years. The School currently conducts research into the cellular basis of multiple sclerosis, biology of memory formation, human and animal circadian rhythms, and cognitive and clinical neuropsychology of stroke, traumatic brain injury and other neuropsychiatric conditions. Preference may be given to applicants with expertise in neuroanatomy, circadian rhythms or other aspects of behavioural neuroscience which complement the existing expertise in the School. We have excellent research facilities including a range of neuro-immuno and biochemical equipment, and access to the University's new multi-purpose animal house. Research interests in both animal and human applications can be accommodated.

An appropriate PhD and demonstrated teaching ability are essential. The School offers a mainstream laboratory-based undergraduate degree and honours, Masters and PhD level training in a wide range of research and coursework areas. You will be expected to contribute to teaching and supervision of students at all levels. Broad-based research areas in the School include neuropsychology, neuroimmunology, psychobiology, as well as clinical, social, developmental, experimental, and cognitive psychology. The School will support productive research programs with excellent technical, mechanical, and computing facilities, and you will be encouraged to attract research funding to establish your own research field.

For a position description contact Personnel on (613) 9479 3671. For further information contact the Head of School, Dr G. Coleman on (613) 9479 2153.

**Salary:** \$A42,198-\$A50,011 per annum. **Closing date:** 10/11/95. **Ref No:** ACAD0/491.

Applications, marked confidential, quoting ref. no and including names, addresses and facsimile numbers of three professional referees should be forwarded to Personnel, La Trobe University, Bundoora, Victoria, Australia 3083.

La Trobe University is an Equal Opportunity Employer and provides a smoke-free work environment.



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# IRRI

INTERNATIONAL RICE RESEARCH INSTITUTE

## Position announcement in the Division of Agronomy, Plant Pathology, and Agroecology for Division Head and either Plant Physiologist or Systems Resource Agronomist

The International Rice Research Institute (IRRI) is seeking candidates for Division Head and either a Plant Physiologist or a Systems Resource Agronomist for its Agronomy, Plant Physiology, and Agroecology Division. It is anticipated that the Division Head will be either a Plant Physiologist or a Systems Resource Agronomist.

IRRI, a member of the Consultative Group on International Agricultural Research (CGIAR), is a nonprofit, autonomous organization engaged in research and training on rice-related technology. The research center and the administrative headquarters are located at Los Banos, Philippines, but scientists work in partnership with agricultural research institutions in major rice growing countries worldwide. The Institute has outreach scientists posted in a number of countries of Asia, Africa, and Latin America.

The Division of Agronomy, Plant Physiology, and Agroecology (APPA) has approximately 100 scientific staff. It conducts research on nutrient and weed management; rice physiology; soil, water, and nutrient interactions, and plant demand for resources in rice-based cropping systems. The research, which is aimed to develop the conceptual and quantitative basis for successfully intensifying production systems in which rice is a component, is conducted in collaboration with other biological and social scientists and engineers, and forms components of interdisciplinary research projects outlined in IRRI's Medium-Term Plans.

### Division Head

The Division Head of APPA provides disciplinary leadership and assists IRRI management to identify and prioritize research activities, and motivates the staff in implementing them through coordination of professional and research services. He/she promotes research collaboration with sister institutions in rice-growing nations worldwide, and contributes to IRRI's program of degree and nondegree training aimed to strengthen research capacity in national agricultural research systems.

We are looking for candidates with recognized capabilities to lead and manage a research team and demonstrated capacity to employ a systems perspective in the design and coordination of research. The candidate must have a PhD in Agronomy, Agroecology, or Plant Physiology or related fields and at least 10 years of research experience with a demonstrated record of scientific output. The Division Head will also conduct our research program in either plant (stress) physiology research or systems resource management as described below. Thus, research experience in stress physiology (see Plant Physiologist position below) or systems resource agronomy (see Systems Resource Agronomist position below) is essential. Research experience on rice is an advantage.

### Plant Physiologist

The Plant Physiologist leads IRRI's research on fundamental mechanisms controlling tolerance of the rice plant to drought and submergence in rainfed systems. He/she links such research on mechanisms to genetics and germplasm selection (including biotechnology approaches), crop and soil management, and crop ecology. The aim is to alleviate constraints arising from drought and submergence. The Plant Physiologist contributes to IRRI's program of degree and nondegree training in plant physiology.

We are looking for candidates with a demonstrated record of achievement in stress physiology at the molecular, biochemical, and cellular or whole plant levels and the ability to work with multidisciplinary teams and collaborate with scientists in national agricultural research systems. The candidate must have a PhD in Plant Physiology/ Biochemistry with a minimum of 3 years of post-doctoral experience. Candidates with interest in the Division Head position will require additional experience as described above.

### System Resource Agronomist

The Systems Resource Agronomist leads research on the effect of intensive lowland rice cultivation on soil quality, and how changes in soil quality affect productivity as part of IRRI's ongoing research on sustaining long-term productivity of irrigated rice systems. He/she provides vision and leadership for research on agronomy management strategies to achieve high and stable yields in irrigated rice systems. The Systems Resource Agronomist contributes to IRRI's program of degree and nondegree training in agronomy and farming systems.

We are looking for candidates with a record of scientific excellence in research on soil fertility/plant nutrition and nutrient cycling research and the ability to effectively work with and management interdisciplinary teams, and collaborate with scientists in national agricultural research systems. The candidate must have a PhD in Agronomy, Soil Science, or a related field with a minimum of 2 years at post-doctoral research experience. Experience with rice and/or other tropical systems in the humid tropics is desirable. Candidates with Interest in the Division Head position will require additional experience as described above.

These positions are located at the Institutes headquarters in Los Banos, Laguna, Philippines. Salary and perquisites are internationally competitive, IRRI providing a gender-sensitive work environment and particularly welcomes women applicants.

Send a comprehensive curriculum vitae and names, addresses and fax numbers of three referees by **31 October 1995** to:

Dr. George Rothschild  
Director General  
International Rice Research Institute  
P.O. Box 933, Manila 1099, Philippines  
Tel. (63-2) 818-1926 , Fax: (63-2) 891-1292  
E-mail. G.ROTHSCHILD@IRRI.CGNET.COM

Please refer to Code IR-DH-001

## Education

### FACULTY POSITIONS

MONTGOMERY COLLEGE, a multi-campus community college committed to student success, located in the Washington D.C. metropolitan area in Montgomery County, Maryland, is seeking full-time faculty to begin with the spring semester in January 1996 for the following areas:

#### BIOLOGY

M.S. in biological sciences with emphasis (major) in ecology (12 to 15 graduate hours in ecology) with most recent degree earned within the last 5 years and good written and oral communications skills are required. A Ph.D. in biological-sciences with emphasis (major) in ecology and one year of teaching experience (full or part-time) are preferred. This is an entry level, instructor position with teaching and coordinating responsibilities in Society and the Changing Environment and teaching Ecology and Principles of Biology as well as advising students in these programs.

#### MATHEMATICS

Master's Degree in Mathematics, Mathematics Education, or a strongly related field is required. Course work must include a minimum of 15 credits in mathematics at the graduate level that indicates depth and variety appropriate to community college mathematics teaching. The majority of mathematics course-work should have been completed within the past five years. This is an entry level position and candidates should have at least one year of full-time or full-time equivalent experience teaching mathematics at the high school or first two years of college level.

Candidates are expected to be able to use computer and/or graphing calculator technology in the teaching of mathematics. Experience working with underprepared students or working in a Math Center is highly desirable. Special consideration will be given to candidates who have demonstrated superior classroom performance as an instructor and/or teaching assistant in teaching developmental mathematics, general education mathematics, statistics, and/or reformed calculus. Good communication skills and interest and a commitment to excellence in community college mathematics teaching are essential. All applicants must submit (1) a completed Montgomery College application (2) a completed Mathematics Application Insert, and (3) undergraduate and graduate transcripts. Incomplete applications will NOT be considered. Day, evening and/or weekend classes may be required. The entry level salary range is \$29,000 to \$36,900.

REVIEW BEGINS OCTOBER 13, 1995 and continues until the positions are filled. To apply please call (301) 279-5374 to request a faculty application or pick up one at:

MONTGOMERY COLLEGE  
Office of Human Resources  
900 Hungerford Drive, Suite 130  
Rockville, Maryland 20850

*MONTGOMERY COLLEGE is an EO/AA/Title IX Employer.*

## Junior and Senior

### Faculty Positions in Biochemistry

THE DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY of the University of Maryland at College Park seeks to fill two positions, one at the Assistant Professor (Tenure Track) level, and one at a Senior level. The Senior position will be in the Division of Biochemistry, which is in the process of growing substantially from its current faculty; most of whom are young with active programs in enzymology, DNA recombination, catalytic RNA, antimicrobial peptides, DNA-protein interactions, atomic force microscopy, and membrane function. Candidates should be in an area that broadens this range of programs, and have an exceptional record of research accomplishment as well as being at a stage of expanding productivity. Although a senior candidate is preferred, junior candidates will also be considered.

The Asst. Prof. position will be joint with the CENTER FOR AGRICULTURAL BIOTECHNOLOGY (CAB), with laboratory space, tenure, and teaching duties in Biochemistry. CAB is a component of the U of MD Biotechnology Institute and is a multidisciplinary research center emphasizing plant-microbe interactions, insect molecular genetics, vaccine development, protein modification, and biochemical engineering. It will soon occupy a newly constructed and equipped research building on the U of MD College Park campus. Candidates for this joint position should be in an area that is clearly compatible with contemporary biotechnology, with interests in protein structure and/or function being particularly desirable. They must also demonstrate exceptional promise of being able to establish and maintain a funded research program. Candidates for both positions should expect to attract graduate students from the Molecular and Cellular Biology program as well as the Biochemistry program. To apply, send resume (including a description of research plans) and arrange for 3 letters of reference to be sent to: Prof. J. Norman Hansen, Chair; Biochemistry Search Committee, Dept. Chem & Biochem, UMCP, College Park, MD 20742. For best consideration, application should be complete by December 1, 1995. The University of Maryland at College Park is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

## GLOBAL CAREER OPPORTUNITIES

### KING'S COLLEGE

Cambridge

#### Research Fellowship in Mathematical Biology

Applications are invited from suitably qualified Mathematicians, Physicists and Biologists for a Research Fellowship in Mathematical Biology. No field of interest is excluded but preference may be given to those with interests in mathematical ecology or epidemiology. The Fellowship may be either a Junior or a Senior Research Fellowship and will depend upon the age and experience of the successful candidate. It is recognised that some applicants may not have gained experience in Mathematical Biology but may be suitably qualified to establish themselves in this field. In addition to pursuing their research, Fellows may be asked to undertake up to four hours teaching per week during term. The election will take place in either February or March 1996 and the Fellowship will run from 1 October 1996 to 30 September 2000. The Fellowship is open to men and women graduates of any University. Junior Fellows must not have completed more than about five years of full-time research by October 1995 and Senior Fellows must have obtained a Ph.D or equivalent. Stipends range from £12,070 to £15,450 for a Junior Research Fellow and from £17,280 to £22,000 for a Senior Research Fellow.

Applications must be made by 18 November 1995. Write for further details and information about how to apply to The Provost, King's College, Cambridge CB2 1ST.

The College follows an equal opportunities policy and is a charity for the promotion of education.

### WAKE FOREST UNIVERSITY

#### Department of Pathology Chair

The Bowman Gray School of Medicine is seeking a Chair for the Department of Pathology. This senior investigator will be charged with developing strong, nationally visible programs in cancer research and in neuroscience and cardiovascular disease research. He/she will be expected to maintain strong existing programs in undergraduate and graduate education as well as to provide the vision to lead a large, successful, academic-based Pathology Department through the changing environment of managed care. Please send curriculum vitae, funding history, and the name of five references to:

Dr. Joseph Jorizzo  
Chairman - Search Committee  
Department of Dermatology  
Bowman Gray School of Medicine  
Of Wake Forest University  
Medical Center Boulevard  
Winston-Salem, NC 27157

**EQUAL OPPORTUNITY EMPLOYER**

### FACULTY POSITION IN METABOLIC REGULATION

Michigan State University  
Department of Physiology

The Department of Physiology invites applications for a tenure-track appointment at the Assistant/Associate Professor level. We seek outstanding candidates with a Ph.D. degree or equivalent with training in physiology, biochemistry or molecular biology. Expertise should be in the area of gastrointestinal physiology or pathophysiology. Preference will be given to those individuals using contemporary approaches of molecular biology and recombinant DNA technology. Candidates are expected to develop a vigorous externally-funded research program and to teach undergraduate, graduate, or medical students. Interested individuals should provide a complete curriculum vitae, a brief statement of research interests, bibliography and copies of key publications or reprints. Applicants should arrange to have at least three (3) letters of recommendation sent from scientists who can evaluate their accomplishments and future potential for research and teaching. Applications should be sent to: Chairperson, Metabolic Regulation/Gastroenterology Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824-1101. Applications accepted until position is filled. Michigan State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

## POSTDOCTORAL POSITION IN EXPERIMENTAL ONCOLOGY

**ST. JUDE CHILDREN'S  
RESEARCH HOSPITAL**

**MEMPHIS, TENNESSEE**

A postdoctoral position is available immediately to participate in an established research program investigating the role of chromosomal translocations in the etiology of human leukemia and lymphoma. Current studies focus on the characterization of the pathophysiologic role of the t(2;5) fusion product, NPM-ALK, in lymphomagenesis (*Science* 263:1281, 1994) and on the molecular, biochemical, and biological analysis of the fusion protein produced by the t(3;5) rearrangement specific to acute myeloid leukemia, which our group has also recently cloned (*Oncogene*, in press). Investigations designed to determine the normal function of the ALK receptor tyrosine kinase including inactivation of the gene in mice by homologous recombination, studies to identify the ALK ligand(s), and yeast two-hybrid screening to identify interacting substrates, are also planned or in progress. In addition, studies to characterize the normal functions of the proteins altered by the t(3;5) are planned. Opportunities also exist for translational studies linking these basic research findings to medical applications for cancer diagnosis and therapeutics, as well as for the molecular characterization of other cancer-associated chromosomal translocations. Candidates possessing a Ph.D. and/or M.D. degree who are interested in joining a multidisciplinary group utilizing molecular cytogenetic, molecular biologic, and biochemical techniques to understand the mechanisms of malignant transformation should submit their curriculum vitae, reprints, and names of three references to: **Dr. Stephan W. Morris, Department of Experimental Oncology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer. We provide a smoke-free environment.**



## RESEARCH ROUNDTABLE DIRECTOR

The National Research Council (NRC), the principle operating arm of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, a non-profit, non-governmental organization located in Washington, D.C., invites applicants for the position of Director of the Government-University-Industry-Research Roundtable (GUIRR). GUIRR is one of the major units of the NRC. GUIRR comprises senior officials in the federal government, universities, and industry, and its staff is part of the NRC. The incumbent plans and oversees a broad range of programs related to policy and other issues relating to the nation's research, emphasizing key issues of common interest to government, university, and industry.

The GUIRR Director, working with the Chair and members of the Roundtable and its Executive Committee, will develop an agenda for the late 1990's and beyond. The incumbent is responsible for all scientific, financial, and administrative operations of the unit, in coordination with cognizant GUIRR project chairs, and subject to staff coordination by the Director of the NRC Policy Division and the Executive Officer of the NRC.

Applicants should have the following qualifications: Ph.D. degree or equivalent, preferably with an emphasis directly related to science policy and/or public policy, ten or more years experience related to GUIRR's field of interest; demonstrated administrative/supervisory experience, preferably in a volunteer organization; demonstrated capacity to conceive, design, and execute policy studies; demonstrated writing, analytic, and oral communication skills; ability to interact effectively with senior leaders in government, academia, and industry. Highly desirable traits include demonstrated familiarity with U.S. institutions of higher learning and their policies and workings; demonstrated familiarity with academic and non-academic research, and first-hand familiarity with the corporate sector, especially with respect to corporate support for and utilization of research.

Please send resume in confidence to:  
**NRC, GUIRR/ED, SM NAS 242,  
2101 Constitution Avenue, NW,  
Washington, DC 20418. EOE**



## CARING TOGETHER

### POST-DOCTORAL FELLOW

**Bone/Cell/Molecular Biology**

Saint Francis Hospital & Medical Center is seeking candidates who have completed a doctoral degree to join our NIH-supported Bone Biology Laboratory.

Interested candidates should send a resume and references to:

**Dr. Ernesto Canalis, Director,  
Department of Research, Saint  
Francis Hospital & Medical  
Center, 114 Woodland Street,  
Hartford, CT 06105-1299.**



**SAINT FRANCIS**  
Hospital and Medical Center



**MOUNT SINAI**  
HOSPITAL



**Blue Ridge Center**

EEC/AA - M/F/D/V Pre-Employment Drug Testing

### MICHIGAN STATE UNIVERSITY APPLIED LIMNOLOGIST

**Tenure-Track, Assistant Professor**

The Department of Fisheries and Wildlife at Michigan State University invites applications for a 12-month, tenure-track, applied limnologist position at the assistant professor level. The Ph.D. is required and preference will be given to applicants with strong quantitative skills and experience in the evaluation and management of lake ecosystems. The ability to teach undergraduate courses in limnology and limnological techniques and a graduate course in advanced limnology is required, as is the ability to develop an active research program on Michigan's inland lakes, including issues relating to water quality, aquatic plant management and fisheries management. The abilities to advise undergraduate and graduate students, to work effectively with state, federal, and private organizations, to obtain research grants, to conduct research and to publish the findings are expected.

**APPLICATION DEADLINE: DECEMBER 15, 1995.** Salary is competitive, commensurate with education, experience and demonstrated ability. Interested persons should submit a letter of application stating professional goals and objectives, a curriculum vitae with supporting materials including transcripts, and three letters of reference to:

**Dr. Thomas Coon, Search Committee Chairperson, Department of Fisheries and Wildlife, 13 Natural Resources Building, Michigan State University, East Lansing, MI 48824. Telephone: (517) 353-3373 FAX: (517) 432-1699 E-MAIL: COONTG@msu.edu**

*Michigan State University is an equal opportunity/affirmative action employer. Minority and women candidates are encouraged to apply. Handicappers have the right to request and receive reasonable accommodation.*



*Department of Cell and Structural Biology*

**Cell or Developmental Biologist  
Assistant Professor**

The Department of Cell and Structural Biology at the University of Illinois, Urbana-Champaign invites applications for a tenure track position as an Assistant Professor. Ph.D. required. Scientist interested in establishing an outstanding research program in cell, molecular, or developmental biology, in a young, expanding department are encouraged to apply. Responsibilities will include teaching cell or developmental biology. Position is full-time and available beginning in the 1996-97 academic year. Salary commensurate with experience.

Substantial start-up funds and laboratory facilities will be provided. The exceptional physical and intellectual resources of the University of Illinois, include; the Transgenic Animal Facility, Center for Electron Microscopy, Genetic Engineering Facility providing oligonucleotide and peptide synthesis and sequencing, Cell Science Laboratory-providing hybridomas and flow cytometry, and the National Center for Supercomputing Applications.

Applicants should submit a curriculum vitae and a summary of research interests, and arrange to have three letters of reference sent to: **Ann Zielinski, Search Coordinator, Department of Cell and Structural Biology, University of Illinois, 506 Morrill Hall, Urbana, IL 61801. Telephone: (217) 333-6118.**

To ensure full consideration, applications should be received by December 15, 1995. Interviews may be conducted before the closing date, but no final decision will be made before that time.

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





This post-doctoral fellowship offers a unique opportunity to train in clinical research with investigators involved in medications development primarily for alcoholism. The position will offer training in both behavioral science and neuropharmacology. The fellow will be expected to play an active role in existing projects and develop his/her own interests. Candidates post internship or with prior experience participating in clinical trials will have an advantage. Experience in either cognitive-behavioral therapy or neuropharmacology, or both will also be advantageous. Applicants should fax their curriculum vitae to **B. Johnson, M.D., M.Phil., Ph.D. at (713) 7452655** or write to him at the **University of Texas - Mental Sciences Institute, Department of Psychiatry and Behavioral Sciences at 1300 Moursund, Houston, TX 77030, USA. The E-mail address is: Bjohnson.utmsinwm@msi66.msi.uth.tmc.edu.**

*The University of Texas is an equal opportunity employer. Minorities and women are encouraged to apply, The University of Texas Health Science Center at Houston is a smoke free environment.*

## ASSISTANT PROFESSORS MURRAY STATE UNIVERSITY

The Department of Biological Sciences at Murray State University is seeking three full-time, tenure track faculty at the **ASSISTANT PROFESSOR** level. Starting Date: Fall, 1996.

**Qualifications:** Ph.D. and at least one year of postdoctoral experience in the appropriate biological discipline required. **Responsibilities:**

(1) **DEVELOPMENTAL BIOLOGIST**- Must be able to teach courses in developmental biology, cell biology, and upper level courses in area of specialty. Preference will be given to those who can also teach human anatomy or physiology. Research area in developmental biology. Submit application to Dr. Edmund Zimmerer.

(2) **TERRESTRIAL ANIMAL ECOLOGIST/FIELD BIOLOGIST** - Must be able to teach courses in field biology, ecology, and upper level courses in area of specialty. Research area open but preference will be given to applicants with expertise in wildlife biology, conservation biology or landscape ecology. Submit application to Dr. Stephen White.

(3) **ANIMAL PHYSIOLOGIST**- Must be able to teach courses in Physiology, Human Physiology, and upper level courses in area of specialty. Preference will be given to individuals who can also teach human anatomy. The research area is open. Submit application to Dr. Leon Duobinis-Gray.

Successful applicants will be expected to develop an externally funded research program and direct graduate students. Opportunities exist to interact with the Murray State University Hancock Biological Station, Center for Reservoir Research, and Mid-America Remote Sensing Center. **Application Deadline:** December 1, 1995. **To Apply:** Submit curriculum vita, statements of research/teaching interests, undergraduate and graduate transcripts, and three letters of recommendation to appropriate search chair, Department of Biological Sciences, P.O. Box 9, Murray State University, Murray, KY 42071-0009. *Murray State University is an equal education and employment opportunity, M/F/D, AA employer.*



### DIRECTOR

#### Institute for Circadian Physiology

The Institute for Circadian Physiology seeks a Director to guide its future scientific program and development. ICP is an independent non-profit (501(c)3) organization in Cambridge, Massachusetts, established in 1988. It aims to determine the most effective and healthy ways to adapt the human circadian system to the work, rest and travel schedules demanded by the contemporary industrial and professional world. It includes several basic and applied research laboratories in the areas of biological rhythms, sleep, alertness, fatigue and performance.

With the award of a multi-year corporate commitment to support the Institute's development and expansion, the Board of Trustees is recruiting a full-time Director/CEO. Applicants must possess a doctorate degree, a distinguished career of scientific achievement in circadian physiology or a related field, and demonstrated vision and capacity for leadership and advocacy of the Institute's programs. The Director will lead a research team as well as manage and oversee the entire program. Responsibilities include fiscal and operating activities and supervision of a development office. There are opportunities for recruitment of senior scientific staff, facilities expansion and university liaisons.

At the Trustees' request, an external Search Committee has been formed that includes Alexander A. Borbély, M.D. (University of Zürich), Tom B. Leamon, Ph.D. (Liberty Mutual Research Center for Safety and Health), Michael Terman, Ph.D., Chair (Columbia University) and Thomas A. Wehr, M.D. (National Institute of Mental Health). Confidential inquiries and letters of application with curriculum vitae and listing of five references, may be sent to Dr. Terman at NYSPI Unit 50, 722 West 168th Street, New York, NY 10032; fax (212) 960-2584.

*ICP is an Equal Opportunity Employer*

## UNIVERSITY OF CONNECTICUT

### TWO FACULTY POSITIONS IN MICROBIOLOGY UNIVERSITY OF CONNECTICUT AT STORRS

The Department of Molecular and Cell Biology seeks microbiologists to fill tenure-track positions beginning September 1996. Appointments will be made at the Assistant or Associate Professor rank. One position is for a microbiologist with expertise and research interests in bacterial pathogenesis or symbiosis. The appointee is to develop and teach an undergraduate course focused on pathogenic bacteria. The second position is for a microbiologist with expertise and research interests in the biochemistry, genetics, and physiology of prokaryotes. This appointee will teach introductory microbiology. Appointees will be expected to participate in the graduate teaching program in microbiology.

The microbiology faculty research programs study the biochemistry, diversity, ecology, evolution, genetics, pathogenicity, and physiology of several prokaryotic groups. The appointment of individuals with similar perspectives is anticipated. The Storrs campus, situated in rural northeastern Connecticut, is the main campus of UConn.

Applicants should have postdoctoral research experience, a strong research record, and plans to establish a vigorous program in an environment of collegial interactions. Excellence in teaching and research are highly valued by the Department and University.

A curriculum vitae, statement of research interests and plans, and three letters of recommendation should be sent to **Professor Edward Leadbetter, Chairman, Microbiology Search Committee, Department of Molecular and Cell Biology, University of Connecticut, Storrs, CT 06269-2131.**

Review of applications will begin after publication of this notice and continue until both positions are filled. *We encourage applications from underrepresented groups including minorities, women, and people with disabilities. (Search #96A80 & 96A112)*

## Research Scientist

**VICAL INCORPORATED**, a leader in the development of gene-based pharmaceutical products for human gene therapy is currently seeking a Research Scientist. The Incumbent will be responsible for carrying out original and applied research in the areas of cellular, molecular and tumor immunology. Will also provide experimental and intellectual contributions to Vical's primary direct DNA injection technology in the area of immunotherapy of and immune protection from cancer. The ideal candidate will possess the following:

- A Ph.D. with at least 2 years Post Doctoral research experience;
- Strong emphasis in techniques common to cellular immunology and molecular immunotherapy;
- Excellent communication and team skills;
- Strong publication record in journals reporting original immunology research

Please send your resume to **Vical, Inc. Human Resources, 9373 Towne Centre Drive, Suite 100, San Diego, CA 92121** or fax to **(619) 453-3452.**

*EOE*

# EMORY

## NEUROSURGERY RESEARCH FACULTY POSITION

Ph.D or M.D./Ph.D. sought for development of a molecular-based research program directed at studying the neurologic bases of movement disorders.

Successful candidates will have completed a post-doctoral fellowship in a related area of investigation, have acquired a minimum of three years experience and demonstrated the ability to develop an established, independent program of research.

Applicants should send an introductory letter and curriculum vitae by December 1, 1995 to:

**Robert C. Davies**  
c/o Faculty Search Committee  
Department of Neurosurgery  
Emory University School of Medicine  
Room B6498, The Emory Clinic, Inc.  
1365-B Clifton Road, N.E.  
Atlanta, GA 30322

EEO/AA M-F

## COLUMBIA UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES FACULTY POSITIONS

The Department of Biological Sciences of Columbia University announces the first phase of a major expansion of its faculty. Positions are currently open at junior and senior levels. We wish to recruit in the areas of Molecular Genetics, Biochemistry, Cell and Developmental Biology, and Immunology. Substantial start-up packages and well-appointed and extensive laboratory space will be made available to successful candidates.

Nominations and applications for senior positions should be accompanied by a curriculum vitae. Applicants for junior positions should, in addition, provide a statement of research goals and arrange to have 3 letters of reference sent as soon as possible.

**Search Committee Co-Chairs**  
Carol Prives and Alex Tzagoloff

The deadline for applications and nominations is December 1, 1995. Materials should be addressed to:

Ms. Elsa Yohannes  
Department of Biological Sciences  
Columbia University  
Sherman Fairchild Center  
1212 Amsterdam Avenue, Room 600  
New York, NY 10027

**and not to the Chairs directly.**

Columbia University is an affirmative action/equal opportunity employer.

## BURROUGHS WELLCOME FUND

### 1996 AWARDS IN PHARMACOLOGY, EXPERIMENTAL THERAPEUTICS, AND TOXICOLOGY

#### Application Deadlines

*New Investigator Awards in the Basic Pharmacological Sciences.* Three-year awards of \$195,000 to give independent investigators at the beginning of their careers the freedom to apply innovative approaches and to pursue higher-risk and longer-range basic pharmacological research. Candidates should be within three years of appointment to a tenure-track position at a rank equal to assistant professor. Four awards will be made. **Deadline: November 1.**

*Experimental Therapeutics Scholar Awards.* Five-year awards of \$400,000 to support career development of investigators who will bring advanced scientific principles to the process of developing, studying, and using drugs in humans. Candidates should have an M.D. or M.D./Ph.D. and an appointment or joint appointment at a rank equal to associate professor in clinical pharmacology or another subspecialty of clinical medicine. Two awards will be made. **Deadline: November 1.**

*Toxicology Scholar Awards.* Five-year awards of \$400,000 to support career development of investigators whose research will advance the understanding of toxicological processes on fundamental and physiologic levels. Candidates (either working in established toxicology programs or in other fields) should hold a rank equal to associate professor. Two awards will be made. **Deadline: December 1.**

These awards are open to U.S. or Canadian citizens or permanent residents at accredited nongovernmental U.S. or Canadian education or education-affiliated institutions.

**Contact:** Burroughs Wellcome Fund, 4709 Creekstone Dr. Suite 100, Morrisville, NC 27560-9771 Tel: (919) 991-5100 Fax: (919) 941-5884.

**Information about these and other Fund awards is available through the Internet at [mailback@bwfund.org](mailto:mailback@bwfund.org).**

## The George Washington University

The Department of Biological Sciences of the Columbian School of Arts and Sciences invites applications for the position of:

### GRACE B. CARNES RESEARCH PROFESSOR OF BIOLOGICAL SCIENCES

This tenure-track position will be filled at the Assistant Professor level by a scientist studying the evolution of prokaryotes.

Applicants with research in the origin of life, phylogenetic analysis of microbial diversity, or molecular basis of evolutionary mechanisms are preferred but other candidates studying the evolution of prokaryotes will be considered. Candidates with postdoctoral experience will be preferred. The successful candidate should be prepared to develop a funded research program involving graduate and undergraduate students. In addition to training students in research, the Grace B. Carnes Research Professor will offer one or two courses in their field per year. Substantial start-up funds are available. Review of applications will begin on Nov. 10 and continue until the position is filled. The starting date for the position will be Sept. 1, 1996.

Please send a letter of application describing research goals for the next five years and teaching interests, a curriculum vitae and three letters of reference to:

**Randall Packer, Chair of Search Committee**  
Department of Biological Sciences, 307 Lisner Hall  
The George Washington University  
Washington, DC 20052

*The George Washington University is an Equal Opportunity, Affirmative Action Employer. Applications from women and minority scientists are strongly encouraged.*

# Minority Advertising Supplement with Bonus Distribution to 27 Minority Organizations

## "Diversity and the Scientific Community"

Issue date: 10 November

Space Reservation deadline: 24 October

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For more information or to reserve your space, call Janis Crowley, (202) 326-6532.

Science Global Career Network address:  
<http://www.aaas.org>

# SCIENCE

COVERS THE WORLD



### RESEARCH ASSISTANT PROFESSOR

Needed Immediately. Research Assistant Professor to direct Assisted Reproduction Laboratory in the Department of Obstetrics and Gynecology at Southern Illinois University School of Medicine in Springfield, Illinois.

Duties include: Management and supervision of the operational, personnel and research activities of the laboratory (Embryology and Andrology).

Minimum qualifications: doctorate degree (Ph.D.) from an accredited institution, in chemical, physical or biological science or be an MD licensed in the State of Illinois. Must have at least three years documented experience in a laboratory performing assisted reproduction procedures. Must have demonstrated ability to publish in peer-reviewed journals.

Position closing date: **October 31, 1995.** Salary history and resume should be sent to:

**Ponjola Coney, M.D.**  
Professor and Chair  
Department of Obstetrics  
and Gynecology  
Southern Illinois University  
School of Medicine  
P.O. Box 19230-1315  
Springfield, Illinois 62704

*SIU School of Medicine is  
an EO/AA/employer*

### THE STATE UNIVERSITY OF NEW JERSEY RUTGERS

Rutgers-The State University at Newark seeks a distinguished scientist to chair its newly restructured Psychology Department beginning on or about July 1996. The department offers an undergraduate major and a Ph.D. program. The Ph.D. program which includes the faculty of the Institute of Animal Behavior has strengths in perception-cognition, behavioral neuroscience, and neuroethology. Other campus units whose faculty have active research programs in related fields include the Center for Molecular and Behavioral Neuroscience, the Biology and Chemistry Departments, and the Schools of Management, Nursing, and Law. The new chair's mandate will be to develop Psychology as a major undergraduate and graduate presence on the Newark campus, a rebuilding process enabled by an administrative commitment of recruitment resources.

Applicants must have a record of excellence in scholarship, teaching, and administration. The successful candidate will be able to provide energetic leadership in the strengthening and coordination of existing academic programs, the expansion of offerings available for the Psychology major and graduate program, and the articulation, integration, and development of connections between the behavioral and cognitive neurosciences.

The chair must meet the criteria associated with tenure at the rank of Full Professor in any of the disciplines in Psychology. Salary competitive.

Candidate should submit an application letter, curriculum vita, and names of three references. Direct nominations, applications, and inquiries to:

**Dr. Virginia Tiger**  
Chair, Search Committee  
Office of the Dean  
360 Dr. Martin Luther King Blvd.  
325 Hill Hall  
Newark, NJ 07102  
201/648-5213  
201/648-1442 FAX

*Rutgers is an Affirmative Action Employer*

The Department of Biology, San Francisco State University, invites applications for three tenure-track positions at the Assistant/Associate Professor level for Fall 1996. Ph.D. is required and postdoctoral experience is preferable. Successful candidates will demonstrate an established research record, the potential for extramural funding of a research program that includes supervision of M.A. students, and a commitment to excellence in teaching that includes general courses as well as area of specialty. We seek:

1. A Vertebrate Systems Physiologist in the area of cardiovascular, respiratory, or renal physiology. Teaching responsibilities include an upper division human physiology course, a graduate seminar in the candidate's area of expertise and rotation into core human physiology lab courses.

2. A Developmental Biologist with interests in gene expression associated with cell differentiation, pattern formation or signal transduction using an animal or plant system. Teaching responsibilities include upper division and graduate courses in developmental biology.

3. A Phylogenist who uses molecular techniques to study systematics or evolutionary biology. Teaching responsibilities include upper division and graduate courses in molecular evolution and related topics.

Send letter of application, statement of teaching and research goals and three letters of reference by December 15, 1995 to: **Chair, Hiring Committee, Department of Biology, San Francisco State University, San Francisco, CA 94132.** Women, ethnic minorities and persons with disabilities are especially urged to apply.

*SFSU is an Equal Opportunity/  
Affirmative Action Employer.*

## POSITIONS OPEN

### BIOCATALYSIS

**POSTDOCTORAL and RESEARCH ASSISTANT** positions are available for motivated scientists in a rapidly expanding program focusing on the role of biocatalysis in green chemistry. Candidates with experience in gene expression, particularly from yeast or fungal DNA, are being considered. Appointments will initially be made on a year-to-year basis, although longer appointments may follow. Send a letter of application, curriculum vitae, and three letters of reference to: **Professor John W. Frost, Department of Chemistry, Michigan State University, East Lansing, MI 48824. Affirmative Action/Equal Opportunity Employer.**

**RESEARCH FELLOW** with Ph.D. and/or M.D., or equivalent degree in the field of medical biology with background and training in morphology. Experience with immunocytochemistry, in situ hybridization, electron microscopy, and molecular biology is preferred. The selected candidate will join an active morphological research team conducting research on the cardiovascular system. Good writing and communication skills are essential. Position will commence immediately. Please send curriculum vitae, cover letter indicating research interests; three current publications; and names, addresses, and telephone numbers of three references to:

**Director**  
**Deborah Research Institute**  
**20 Trenton-Pine Mill Road**  
**Browns Mills, NJ 08015-1799**  
*Equal Opportunity Employer*

### CARDIOLOGY

Full-time academic position available for **RESEARCH ASSOCIATE** as Director of an adenovirus core facility. Responsibilities include: generation of novel replication defective adenovirus vectors, generation of purified replication-defective adenoviruses for selected collaborators, and management of laboratory. Please send letter and curriculum vitae to: **Jeffrey Leiden, M.D., Ph.D., The University of Chicago, Department of Medicine, Section of Cardiology, 5841 South Maryland Avenue, MC 6080, Chicago, IL 60637. Affirmative Action/Equal Opportunity Employer.**

**RESEARCH ASSOCIATE.** Medical Physics. Develop cyto-shuttle equipment and techniques in morphometric analysis applied as prognostic method for chemotherapy and radiation cancer therapy. Apply post Ph.D./M.D. clinical oncology research experience in disciplines including radiation oncology, chemotherapy, applied biophysics, radiation biology involving radioisotopes. Requires M.D. or Ph.D. with three years of experience in job offered or three years as Radiation Oncologist plus two years in cancer lab using image analysis, flow cytometry, nuclear morphology analysis, AgNORS. Certified radiation safe and lab animal care and use. \$65,605 per year. Job in Fairfax, Virginia. Apply with résumé, copy of ad to: **VEC, Department 2-9, VA-5071672, 100 Carpenter Drive, Suite 105A, Sterling, VA 20164-4464. Proof of right to work in U.S.**

**RESEARCH ASSOCIATE** for university in central Ohio. Characterize the biochemical interaction between RNA virus (CDV, MV, VSV, and HTLV-1) and 70 kDa heat shock proteins, both in vitro and using animal models of viral encephalitis. Supervise graduate students in disciplines of veterinary virology, cell biology, molecular genetics, and heat shock protein biology as relates to the above research focus. Publish results of original research and present data at national scientific meetings. Be responsible for the procurement and disposal of hazardous laboratory material. M.S. molecular genetics or biochemistry and one year of experience in above-described duties or in the study of eukaryotic RNA processing, including purification of RNP complexes; cloning and expression of recombinant proteins, purification of native proteins using HPLC and affinity chromatography; recombinant DNA technologies, including cDNA cloning, sequence analysis, DNA mutagenesis, and PCR; tissue culture; Confocal and electron microscopy; software for the analysis of DNA/protein structure. Experience may have been gained before, during, and after the degree. 40 hours per week, 8 am to 5 pm, Monday through Friday, \$26,136 per year. Send two résumés and cover letters (no calls) to: **G. Maugans, Reference No. 1327, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## POSITIONS OPEN

### RESEARCH GENETICIST (PLANTS)

USDA, Agricultural Research Service (ARS), National Forage Seed Production Research Center, Corvallis, Oregon. Conduct research on the genetics, cytogenetics, cytology, and agronomy of hops to develop new hop germplasm. Produce new hop cultivars with improved quality and increased disease and pest resistance. Salary range is \$35,578 to \$42,641 per annum. This is a full-time, permanent position. For a copy of the announcement, please telephone: **503-750-8700**. Closing date is October 30, 1995. Open to all U.S. citizens. *ARS is an Equal Opportunity Employer.*

### CELLULAR IMMUNOLOGIST

Virion Systems, Inc., a small biotechnology company established in 1987, seeks a cellular immunologist with strong molecular biology experience. Our projects include studies of the pathogenesis and therapy of respiratory viral infections, and the development of new vaccines and vaccine strategies for viral and bacterial agents. The position requires a doctoral degree and postdoctoral experience. Candidates who have been principal investigators on grants or contracts will be favored. Please send a letter of interest, a curriculum vitae with grant/contract history, and the names of three references to: **Dr. Gregory A. Prince, Vice President, Virion Systems, Inc., 9610 Medical Center Drive, Suite 100, Rockville, MD 20850. An Equal Opportunity/Affirmative Action Employer.**

## INTERNATIONAL SYMPOSIUM

**THE UNIVERSITY OF SIENA**  
Organizes a Two-Week-Long Summer School for  
"A Multidisciplinary Assessment of Contaminants  
in the Environment and of Risks  
for Human Health"  
14 to 28 July 1996

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Food and lodging provided for 15 Italian and 15 foreign students. A few fellowships are available to cover part of the travel expenses for students coming from L.D.C. Degree in Medicine or Biology is required. Degrees in related fields will also be considered. Official language: English. Immediately forward application, curriculum vitae, list of publications, letter(s) of recommendation, and a brief abstract of your personal research. Contact: **Prof. A. Renzoni, Dipartimento di Biologia Ambientale, Via delle Cerchia 3, 53100 Siena, Italy. Telephone: 0577-298831; Telefax: 0577-298806; Telex: 572459 UNIVSI I.**

## SYMPOSIUM

**SYMPOSIUM:** Therapeutic Antibody Technology 95 October 30 to November 1, 1995; Cathedral Hill Hotel, San Francisco, California. Speakers: C. Barbas, G. Barsonian, C. Borrebaeck, D. Burton, P. Carter, D. Charish, K. Chester, A. Griffiths, A. Grillo-Lopez, K. Hellstrom, A. Hiatt, H. Hoogenboom, P. Hudson, A. Jakobvits, K. Johnson, W. Marasco, G. Mark, J. Marks, S. Morrison, I. Pastan, A. Plückthun, L. Ostberg, J. Reno, M. Rosenberg, T. Scanlon, W. Stemmer, L. Weiner, I. Wilson. Abstracts due October 16, 1995. Organizers: J. Larrick, J. Marks. Sponsor: Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043. Telephone: 415-694-4996; FAX: 415-694-7717; Email: PAIMM@AOL.COM.

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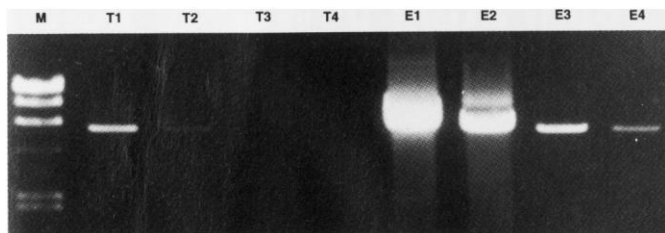
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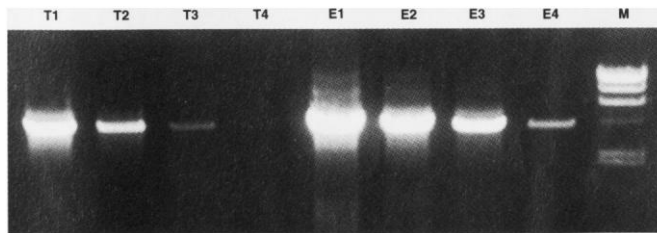
Template: *E. coli* genomic DNA  
Amplified size: 4kb  
T: 0.9 U of *Taq* /50 µl reaction  
E: 0.9 U of *Ex Taq* /50 µl reaction  
M: λDNA/Hind III Marker



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