



# GORDON RESEARCH CONFERENCES

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## 1997 Meeting Schedule

### 1997 SUMMER AND INTERNATIONAL SCHEDULES

	COLBY-SAWYER COLLEGE <i>New London, New Hampshire</i>	HOLDERNESS SCHOOL <i>Plymouth, New Hampshire</i>	KIMBALL UNION ACADEMY <i>Meriden, New Hampshire</i>	NEW ENGLAND COLLEGE <i>Henniker, New Hampshire</i>
<b>June 8 - 13</b>	<b>Muscle:</b> Excitation/Contraction Coupling <i>Eduardo Rios</i> <b>Wound Repair</b> <i>Samuel Leibovich</i>	<b>Phagocytes</b> <i>Robert Clark</i>	<b>Second Messengers &amp; Protein Phosphorylation</b> <i>Patrick Casey</i>	<b>Polyamines</b> <i>John Mitchell &amp; Olli Janne</i> <b>Plant Cell Genetics &amp; Development</b> <i>Joachim Messing</i>
<b>June 15 - 20</b>	<b>Coastal Ocean Circulation</b> <i>Christopher Mooers</i> <b>Nuclear Chemistry</b> <i>C.J. Lister</i>	<b>Proteins</b> <i>P. Andrew Karplus &amp; Angela Gronenborn</i>	<b>Atherosclerosis</b> <i>Helen Hobbs &amp; David Hajjar</i>	<b>Mycotoxins &amp; Phycotoxins</b> <i>Wanda Hascbek-Hock</i> <b>Origins of Solar Systems</b> <i>John Kerridge</i>
<b>June 22 - 27</b>	<b>Genetic Toxicology</b> <i>Ken Tindall</i> <b>Ion-Containing Polymers</b> <i>Charles Martin</i>	<b>Mechanisms of Membrane Transport Proteins</b> <i>Carolyn Slayman</i>	<b>Lipids &amp; Lipid Mediators</b> <i>William Smith</i>	<b>Magnetic Resonance</b> <i>Allen Garroway</i> <b>Three Dimensional Electron Microscopy</b> <i>Ronald Milligan</i>
<b>June 29 - July 4</b>	<b>Cell Death</b> <i>Martin Tenniswood</i> <b>Immunochemistry &amp; Immunobiology</b> <i>Diane Matthis</i>	<b>Physical Organic Chemistry</b> <i>J. Michael McBride</i>	<b>Optical Signal Processing &amp; Holography</b> <i>Harold Szu</i>	<b>Atomic Physics</b> <i>Phillip Gould</i> <b>Gravitational Effects in Physico-Chemical Systems</b> <i>Tony Chen</i>
<b>July 6 - 11</b>	<b>Fiber Science</b> <i>Sheldon Kavesb</i> <b>Cell Proliferation, Molecular &amp; Genetic Basis of</b> <i>John Blenis</i>	<b>Drug Metabolism</b> <i>Ronald White</i>	<b>Bones &amp; Teeth</b> <i>Marian Young</i>	<b>Natural Products</b> <i>Jon Clardy</i> <b>Electronic Materials, Chemistry of</b> <i>H. Patrick Gillis &amp; Steven George</i>
<b>July 13 - 18</b>	<b>Chemotherapy of Experimental &amp; Clinical Cancer</b> <i>Scott Kaufmann &amp; Annette Larsen</i> <b>Coatings &amp; Films</b> <i>Donald Boyd</i>	<b>Free Radical Reactions</b> <i>Janusz Lusztyk</i>	<b>Enzymes, Co-enzymes, and Metabolic Pathways</b> <i>Michael Gelb &amp; Carol Fierke</i>	<b>Neural Plasticity</b> <i>Susan Hockfield</i> <b>Hydrogen-Metal Systems</b> <i>Robert Leisure &amp; Louis Schlapbach</i>
<b>July 20 - 25</b>	<b>Corrosion - Dry</b> <i>David Young</i> <b>Elastomers</b> <i>Adel Halasa</i>	<b>Biomaterials: Biocompatibility/Tissue Engineering</b> <i>Jeffrey Hubbell &amp; R. Pilliar</i>	<b>Elastin &amp; Elastic Fibers</b> <i>William Parks</i>	<b>Reactive Polymers, Ion Exchanges &amp; Absorbents</b> <i>Spiro D. Alexandratos</i> <b>Periodontal Diseases</b> <i>Thomas Van Dyke</i>
<b>July 27 - Aug. 1</b>	<b>Collagen</b> <i>Gail Sonenshein &amp; John Bateman</i> <b>Nonlinear Optics and Lasers</b> <i>Richard Slusher</i>	<b>Fertilization &amp; Activation of Development</b> <i>Richard Nuccitelli</i>	<b>Hormone Action</b> <i>Kelly Mayo</i>	<b>Bioanalytical Sensors</b> <i>Irene Walczak</i> <b>Origin of Life</b> <i>John Rummel</i>
<b>Aug. 3 - 8</b>	<b>Forested Catchments, Hydro-/Geo-/Bio-logical Processes of</b> <i>Myron Mitchell &amp; Egbert Matzner</i> <b>Medicinal Chemistry</b> <i>William Greenlee</i>	<b>Liquids, Chemistry &amp; Physics of</b> <i>C. Austin Angell</i>	<b>Ceramics, Solid State Studies in</b> <i>Carol Handwerker &amp; Roger French</i>	<b>Organic Reactions &amp; Processes</b> <i>John Dillon</i> <b>Molten Salts &amp; Liquid Metals</b> <i>Charles Hussey</i>
<b>Aug. 10 - 15</b>	<b>Chronobiology</b> <i>Gene Block</i> <b>Rock Deformation</b> <i>Harry Green II</i>	<b>Epigenetics</b> <i>Steven Henikoff &amp; Majorie Matzke</i>	<b>Chemical Oceanography</b> <i>Ken Bruland</i>	<b>Inorganic Geochemistry</b> <i>Mark Reed</i> <b>Analytical Chemistry</b> <i>Timothy Harris</i>
<b>Aug. 17 - 22</b>			<b>Materials Processes Far From Equilibrium (NEW)</b> <i>Eric Chaison</i>	

<b>April 20 - 25</b> <b>Angiotensin</b> <i>Pierre Corvol</i> Il Ciocco, Barga, Italy	<b>April 27 - May 2</b> <b>Biological Structure &amp; Gene Expression</b> <i>Benjamin Geiger</i> <b>Kallikreins &amp; Kinins</b> <i>Werner Muller-Esterl</i> Il Ciocco, Barga, Italy	<b>May 4 - 9</b> <b>Biodegradable Polymers</b> <i>Emo Chiellini</i> <b>Quinone &amp; Redox Active Amino Acid Cofactors</b> <i>Peter Knowles</i> Il Ciocco, Barga, Italy	<b>June 29 - July 4</b> <b>Polymers</b> <i>J.P. Vairon Virgil Percec</i> Les Fontaines, Paris	<b>August 17 - 22</b> <b>Environmentally Benign Organic Synthesis</b> <i>Stephen DeVito</i> Queen's College, Oxford
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	<b>Cell Contact &amp; Adhesion</b> <i>Urs Rutishauser</i>	<b>Neurotrophins</b> <i>David Kaplan &amp; Story Landis</i>	<b>Liquid Crystals</b> <i>Jay Patel</i>
<b>Mammary Gland Biology</b> <i>Floyd Schanbacher</i> <b>Zeolitic &amp; Layered Materials</b> <i>Charles Kresge</i>	<b>Bioorganic Chemistry</b> <i>John Griffin &amp; Anthony Czarnik</i>	<b>Atmospheric Chemistry</b> <i>Paul Wine &amp; Daniel Jacob</i>	<b>Viruses &amp; Cells</b> <i>Dan Ganem &amp; Peter Palese</i>
<b>Analytical Pyrolysis</b> <i>Lars Carlsen</i> <b>Ligand Recognition &amp; Molecular Gating (NEW)</b> <i>Kathryn Sandberg</i>	<b>Developmental Biology</b> <i>Ruth Lehmann &amp; Eric Olson</i>	<b>Nucleic Acids</b> <i>Roy Parker &amp; Nancy Craig</i>	<b>Carbohydrates</b> <i>Mario Pinto &amp; J.H. Van Boom</i>
<b>Radiation Oncology (NEW)</b> <i>J. Martin Brown</i> <b>Excitatory Amino Acids &amp; Brain Function (NEW)</b> <i>Steve Heinemann</i>	<b>Bioenergetics</b> <i>Sbelagh Ferguson-Miller</i>	<b>Heterocyclic Compounds</b> <i>William Pearson</i> <b>Purines, Pyrimidines &amp; Related Substances</b> <i>Barbara Ramsay-Shaw</i>	<b>Polymer Colloids</b> <i>Donald Sundberg</i>
<b>Laser Diagnostics in Combustion</b> <i>Marshall Long</i> <b>Thin Films &amp; Crystal Growth Mechanisms</b> <i>John Venables &amp; J. Iwan Alexander</i>	<b>Molecular Membrane Biology</b> <i>Suzanne Pfeffer</i>	<b>Parasitism</b> <i>James McKerrow</i> <b>Statistics in Chemistry &amp; Chemical Engineering</b> <i>Lyle Ungar</i>	<b>Condensed Matter Physics</b> <i>Shobo Bhattacharya &amp; Matthew Fisher</i>
<b>High Performance Computing/Information Infrastructure</b> <i>Anthony Skjellum</i> <b>Plasmid &amp; Chromosome Dynamics</b> <i>Virginia Zakian</i>	<b>Matrix Metalloproteinases</b> <i>Lynn Matrisian</i>	<b>Organic Thin Films</b> <i>Avi Ulman</i> <b>Oscillations &amp; Dynamic Instabilities in Chemical Systems</b> <i>John Tyson</i>	<b>Red Cells</b> <i>Mark Groudine</i>
<b>Genetic Vaccinations (NEW)</b> <i>David Weiner</i> <b>Catalysis</b> <i>Vincent Durante</i>	<b>Catecholamines</b> <i>Nancy Zabniser</i>	<b>Inorganic Chemistry</b> <i>Andrew Barron</i> <b>Organic Photochemistry</b> <i>David Whitten</i>	<b>Epithelial Differentiation &amp; Keratinization</b> <i>Dennis Roop</i>
<b>Clusters, Nanocrystals &amp; Nanostructures</b> <i>Martin Jarrold</i> <b>Microbial Population Biology</b> <i>Julian Adams</i>	<b>Staphylococcal Diseases</b> <i>Steven Projan</i>	<b>Nuclear Physics</b> <i>Doug Beck</i> <b>Organometallic Chemistry</b> <i>Patricia Watson</i>	<b>Hormonal Carcinogenesis</b> <i>George Lucier</i>
<b>Photosynthesis</b> <i>Melvin Okamura</i> <b>X-Ray Physics</b> <i>Massimo Altarelli</i>	<b>Membranes: Materials &amp; Processes</b> <i>Georges Belfort</i>	<b>Cancer</b> <i>Terry Van Dyke</i> <b>Molecular Mechanisms of Microbial Adhesion</b> <i>Sharon Long &amp; Staffan Normack</i>	<b>Quantitative Structure Activity Relationships</b> <i>Herschel Weintraub</i>
	<b>Dynamics at Surfaces</b> <i>Charles Rettner</i>	<b>Human Molecular Genetics</b> <i>Robert Nussbaum</i> <b>Supramolecules &amp; Assemblies, Chemistry of</b> <i>Larry Romsted</i>	<b>Barrier Function of Mammalian Skin</b> <i>Peter Elias</i>
		<b>Angiogenesis &amp; Microcirculation</b> <i>Harold Dvorak</i> <b>Applied &amp; Environmental Microbiology</b> <i>Parmely Pritchard</i>	<b>Plant Cell Walls (NEW)</b> <i>Andrew Staebelin</i>

<b>August 24 - 29</b> <b>Illicit Substance Detection (New)</b> <i>Steve Burmeister</i> <i>John Daly</i> Queen's College, Oxford	<b>Aug. 31 - Sept. 5</b> <b>Molecular Electronic Spectroscopy</b> <i>David Pratt</i> Queen's College, Oxford	<b>September 7 - 12</b> <b>Calcium Signalling</b> <i>David Clapham</i> Queen's College, Oxford	<b>September 14 - 19</b> <b>Photoacoustic &amp; Photothermal Phenomena</b> <i>Darryl Almond</i> <i>Robert Imbof</i> Queen's College, Oxford	<b>September 21 - 26</b> <b>Solid State Chemistry</b> <i>Peter Battle</i> <i>Jack Johnson</i> Queen's College, Oxford
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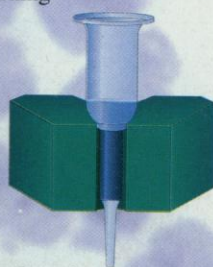
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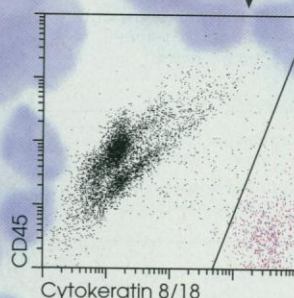
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Wang, X. et al. Matrix metalloproteinase inhibitor BB-94 inhibits human colon tumor growth and spread in a patient like orthotopic model in nude mice. *Cancer Res.* 54, 4726-28 1994

Hoffman, R. Orthotopic is orthodox: why orthotopic transplant metastatic models are different from all other models? *J. Cellular Biochem.* 56, 1-4, 1994



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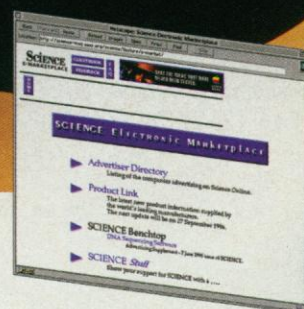
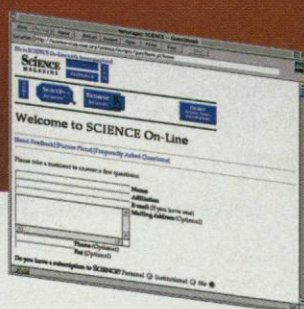
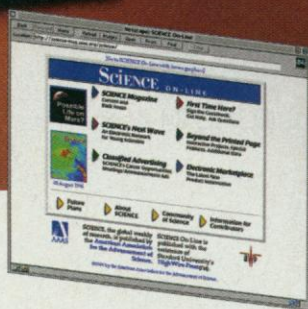
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♦ The nomination for the **Art Prize** is made by experts and applications are not invited. The theme for 1997 is «Genesis of Forms» in **Architecture** and **Earth Arts** (ceramics, glass, metals,...).



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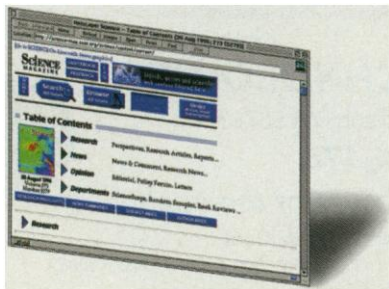
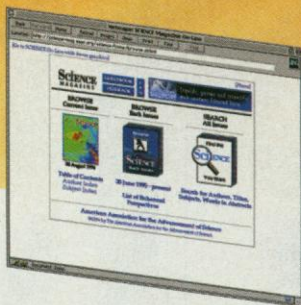
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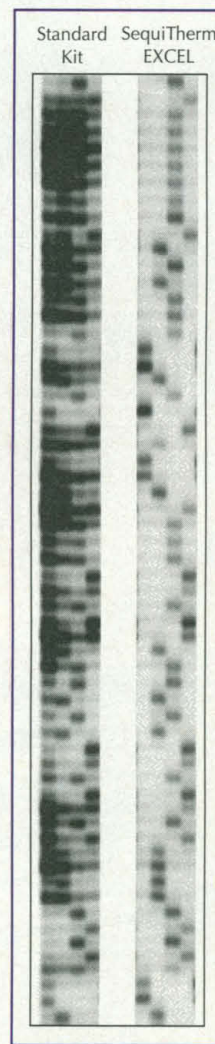
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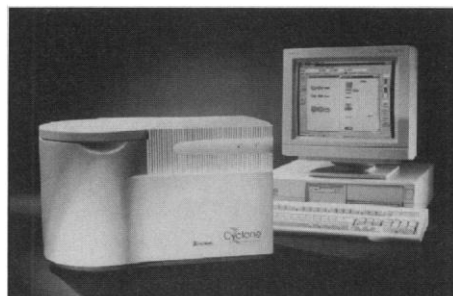
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PowerPrep is a kit for the isolation of plasmid DNA. It features a new proprietary DNA binding resin, *pink*RESIN, that resuspends with ease, thereby eliminating one of the main frustrations of using resins to isolate

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.

DNA. The kit makes use of rapid spin column protocols. Within 15 min, the plasmid can be isolated and tested for quality by running on the Uni-Lane gels supplied with each kit. PowerPrep routinely gives a yield of 2 to 10  $\mu\text{g}$  of plasmid per 3 ml of bacterial culture. The quality is suitable for restriction enzyme digestion, sequencing, subcloning, and in vitro transcription. **Geno Technology. Circle 141.**

## Image Analysis System

A new digital camera offers reduced cost per print when used as part of an image analysis system designed for recording and analyzing electrophoresis gels. At the core of the EDAS (Electrophoresis Documentation and Analysis System) is the Kodak Digital Science DC40, a lightweight, point-and-shoot digital camera. With its ethidium bromide

filter, the DC40 can provide sensitivity comparable to instant film yet yield sharp and vibrant 24-bit color images for normal photographic applications. Once captured, an image can be printed, transmitted by e-mail, stored electronically, or incorporated directly into word-processed reports. In addition, any gel image can be analyzed using the one-dimensional software, a versatile program that can calculate mass and molecular weight data rapidly and accurately by referencing positions of known bands. **Amer-sham International. Circle 142.**

## Electrophysiology and Patch Clamp Microscope

The upright BX50WI microscope with fixed-stage, focusable nosepiece and infinity-corrected water immersion optics provides a vibration-resistant platform for high image quality and high precision manipulation for electrophysiology, patch clamp applications, and intra-vital microscopy. The low-position fixed stage is securely fastened to the front and rear of the stable Y-shaped frame. This low position and the increased total focusing stroke allow the user to work with all different kinds of petri dishes or perfusion chambers. Micromanipulators can be mounted directly on the stage with adapter

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brackets. Focusing is done by movement of the nosepiece. Therefore the microscope arm remains stationary to support accessories such as fluorescence and video components. **Olympus Optical. Circle 143.**

### Thermal Cycler

The compact BioCycler 101 Thermal Cycler can be used for all biological protocols requiring controlled temperatures from ambient to 99°C. Applications include restriction enzyme digests, DNA sequencing, hybridizations, and primer extensions. **Fotodyne. Circle 144.**

### Miniature, Low-Light Spectrometer

The S2000 is a high sensitivity ultraviolet-visible-shortwave near infrared fiber optic spectrometer. It has a compact optical bench coupled to a 2048-element charge-coupled device (CCD) linear array detector. Because of this improved detector technology, the S2000 can be used for fluorescence, phosphorescence, and other low-light applications that demand high detector sensitivity. Potential applications include high-resolution chlorophyll analysis, oxygen sensing,

plasma monitoring, and pharmaceuticals testing. The linear CCD array responds to light from 200 to 1000 nm. Users can choose from among 14 diffraction gratings, plus a variety of input fibers and fiber optic accessories, to create an application-specific analytical instrument. **Ocean Optics. Circle 145.**

### Micromanipulator

TransferMan is a micromanipulator for positioning holding capillaries and for transferring cells. Many different types of tools can be moved easily and precisely under the microscope. TransferMan can be fastened onto all commonly used microscopes, and can be installed and equipped by users themselves. Operation is simple via four self-explanatory keys. Coarse and fine manipulators are integrated and can be operated with one hand. Recurrent operational steps, such as locating work points, can be automated by simply storing up to two positions. **Eppendorf. Circle 146.**

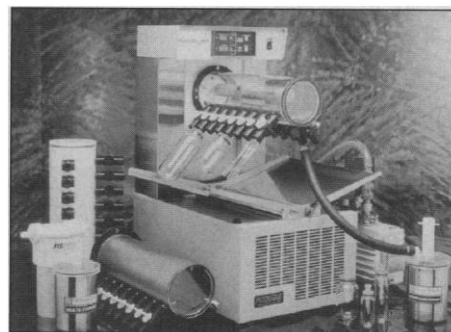
### Gel Documentation System

The Doc-It System is a low-cost, entry-level gel documentation system designed as an alternative to instant photography systems. It

is designed for users who require only documentation without image analysis. Doc-It's black and white monitor and integration unit link to a 256-gray level thermal printer for high quality, low-cost prints. The thermal printer produces a hard copy image in just 4 s at about one-tenth the cost of instant photography. Print size, brightness, and contrast functions are all included. **UVP. Circle 147.**

### Freeze Dryer

The Flexi-Dry MP benchtop lyophilizer combines complete microprocessor control and a titanium condenser with a maximum low temperature of -85°C. The short, unrestricted vapor path from product container



to condenser allows for rapid drying times. Other features include compact size, an "add product" indicator, safety alarms, and hot-gas defrost. Manifolds are available made of acrylic, Teflon, and stainless steel. **FTS Systems. Circle 148.**

### Literature

*Current Separations* is a quarterly publication on electrochemistry, chromatography, and microdialysis. The current issue includes research papers on a new gas-solid chromatography separation technique, a novel thiazolidinedione hypoglycemic, an introductory cyclic voltammetry experiment of ferricyanide, real-time measurement of extracellular glucose using wired enzyme electrodes, and in vitro recoveries for sodium, potassium, chloride, glucose, and lactate in ultrafiltrates and microdialysates from rat subcutaneous tissue. **Bioanalytical Systems. Circle 149.**

*Industrial Computer Source-Book* is a 128-page catalog of computer systems and data acquisition, industrial control, and communications products for IBM PC, XT, and AT computers and compatibles. Products include a rackmount file server, Pentium motherboards, and benchtop monitor enclosures to protect against dirt, dust, and falling objects. **Industrial Computer Source. Circle 150.**

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# MAKING THINGS WORK

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For MEETINGS AND ANNOUNCEMENTS display advertisements, turn to page 1410.

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## POSITIONS OPEN

# UCSF

University of California, San Francisco

### FACULTY POSITION DEVELOPMENTAL BIOLOGY

The Department of Anatomy invites applications for **ASSISTANT PROFESSOR** (tenure-track), with research interests in developmental biology. The successful candidate will participate in the Developmental Biology graduate program and the UCSF Program in Biological Sciences (PIBS) and teach in one of the professional school curricula (e.g., Medicine, Pharmacy).

A Ph.D., M.D., or equivalent doctoral-level degree is required. For outstanding candidates with considerable postdoctoral experience and an academic appointment, Associate Professorship may be considered.

To apply, send curriculum vitae and concise statement of research interests and plans (two-page maximum), and request that three letters of recommendation be sent to:

**Developmental Biology Search Committee**  
Department of Anatomy, UCSF  
513 Parnassus Avenue, Room S-1334  
San Francisco, CA 94143-0452

All materials should be received by January 15, 1997.

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

### ECOLOGY/EVOLUTIONARY BIOLOGY Assistant Professor

The Department of Biological Sciences, State University of New York at Buffalo, invites applications for a **TENURE-TRACK** position at the level of Assistant Professor starting in September 1997. We seek an individual working in the area of Molecular Ecology whose research addresses ecological and evolutionary questions using molecular genetic techniques such as manipulating the genome and following genetic markers within populations and species. The department has active research groups in ecology and molecular biology (including plant molecular biology) and we have identified molecular ecology as an area of future growth. The successful candidate will be expected to develop an active externally funded research program and to contribute to undergraduate and graduate courses in ecology, including a course in molecular ecology. Candidates should have a Ph.D. and two years of postdoctoral or equivalent experience. Applications, including a curriculum vitae, statement of research and teaching interests, and three letters of recommendation, should be submitted to: **Dr. Howard R. Lasker, Molecular Ecology Search Committee, Department of Biological Sciences, University at Buffalo, Buffalo, NY 14260-1300.** Application review will begin December 15, 1996. Information about the Department and the University can be viewed at: <http://wings.buffalo.edu/academic/departments/fms/bio-sci/index.html>.

The State University of New York is an Equal Opportunity/Affirmative Action Employer, and encourages applications from minorities, women, and disabled persons. No applicant shall be discriminated against on the basis of age, creed, color, disability, nation of origin, religion, ethnicity, sex, sexual orientation, marital or veteran status.

### FACULTY POSITION MOLECULAR BIOLOGY/BOTANY

The Department of Biology at Carthage College invites applications for a **TENURE-TRACK**, Assistant Professor position in molecular biology and botany. Carthage is a dynamic liberal arts college with a commitment to developing the potential of each student. The college is located between Chicago and Milwaukee, allowing the faculty to take advantage of the academic environments of both cities. The successful candidate will have a strong background in experimental biology, experience in applying molecular techniques to problems in botany, commitment to teaching at the undergraduate level, enthusiasm for involving students in research projects, and a desire to pursue external funding. The Department is well-equipped for state-of-the-art teaching and research. Applications, including a current curriculum vitae, transcripts, and three letters of reference, should be submitted to:

**Dr. Charlotte Chell, Chairperson**  
Division of Natural Sciences  
Carthage College, Kenosha, WI 53140

Review of applications will begin on December 15, 1996.

Carthage is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.

## POSITIONS OPEN

### CLINICAL RESEARCH NEUROLOGIST NEURODEGENERATIVE DISEASE The University of Connecticut School of Medicine

A key focus of the School of Medicine's strategic plan calls for the creation of a neurodegenerative disease initiative utilizing fast magnetic resonance imaging as a research tool. Having already expanded relevant basic research, we are now in a position to develop related clinical research. To support this program, a new MRI scanner with echoplanar capability that permits functional imaging has been acquired, and we have dedicated a considerable portion of its use for research purposes. Additional start-up monies have been made available, and new positions have been created in neurology, psychiatry, and imaging science. In addition to making individual contributions, these three individuals will constitute a team dedicated to the study of neurodegenerative disease through the application of contemporary imaging science.

The **TENURE-TRACK** position in neurology requires a clinical researcher who uses imaging as a major component of his or her research program. Examples include a clinical scientist with experience in behavioral neurology, neuromimnology or multiple sclerosis, Alzheimer's or other dementing illnesses, or motor disorders such as Parkinson's disease.

Applicants must be Board-eligible/certified in neurology with fellowship training and research experience. Please submit résumés to:

**Leslie Wolfson, M.D.**

**Professor and Chair, Department of Neurology**  
The University of Connecticut School of Medicine  
Farmington, CT 06030-1845

(Search Code 96-304).

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### NEURAL CIRCUITS UNIVERSITY OF PITTSBURGH

Applications are invited for a **TENURE-TRACK** faculty position at the Assistant Professor rank in the Department of Neurobiology. The successful candidate will conduct a competitive, independent research program investigating cellular mechanisms of synaptic integration in thalamic and/or cortical circuits. Applicants should have expertise in biophysical approaches *in vitro*, preferably combined with structural and/or computational methods. The position requires a Ph.D. and/or M.D. with at least two years of postdoctoral experience. Competitive salary support and start-up funds will be provided. Applicants should submit by January 31, 1997, a curriculum vitae, a detailed description of future research goals, representative publications, and names and addresses of three references to: **Dr. Pat Levitt, Chair, C/O Circuit Search Committee, Department of Neurobiology, University of Pittsburgh School of Medicine, E1440 Biomedical Science Tower, Pittsburgh, PA 15261.**

The University of Pittsburgh is an Equal Opportunity Employer.

### MOLECULAR BIOLOGIST

The Biology Department of Florida Southern College seeks an **ASSISTANT PROFESSOR** in molecular biology, cell biology, genetics, and/or developmental biology beginning September 1997. Ph.D. preferred; ABD considered. Interest in teaching undergraduates is essential. Responsibilities include general as well as advanced biology courses on campus and possibly in the Orlando Program. Research is encouraged and should be designed to include undergraduate science majors. Full consideration will be given to applications received by January 15, 1997, but the search will continue until the successful candidate is identified. Send curriculum vitae, letter of application, and three letters of recommendation to: **Dr. Nancy J. Aumann, Vice President and Dean of the College, Florida Southern College, 111 Lake Hollingsworth Drive, Lakeland, FL 33801-5698.**

### BIOLOGY: ECOLOGY/ZOOLOGY

MacMurray College, a private United Methodist liberal arts college, has a **TENURE-TRACK** position commencing fall 1997. Ph.D. required. Expectations: teach in the areas of ecology/environmental biology (including a field component) as well as zoology, vertebrate anatomy, and introductory biology. Application, curriculum vitae, teaching philosophy, graduate transcripts, and three references should be sent by December 6, 1996 to: **Dr. Jim Goulding, Dean of the College, MacMurray College, 447 East College, Jacksonville, IL 62650.** Affirmative Action/Equal Opportunity Employer.





## Director, Natural Reserve System

### Division of Agriculture and Natural Resources

Applications and nominations are invited for the position of Director of the Natural Reserve System of the University of California, encompassing more than 100,000 acres distributed among 33 academic reserves, representing most of California's major ecosystems.

We are searching for a Director with administrative and academic experience, who will be an advocate for the NRS within the University, promote the NRS to appropriate private citizen groups, agencies and institutions, and initiate and execute NRS fundraising activities. We expect the incumbent to be qualified for an academic position within the University of California. Salary range (MSP V) is \$71,300-\$107,000. Salary will be commensurate with experience. Review of applications will begin on January 1, 1997.

Please send letter of interest and *curriculum vitae* to: Management Recruitment, Search Committee, 0-96, Director of the Natural Reserve System, Office of the President, University of California, 300 Lakeside Drive, 9th Floor, Oakland, CA 94612-3560.

*Affirmative Action/Equal Opportunity Employer.*

## GEORGE MASON UNIVERSITY

### Chair - Department of Biology

Applications and nominations are invited for the position of Chair of the Biology Department at George Mason University to commence in Fall 1997. The department is seeking a dynamic leader with proven administrative abilities, a distinguished record of research productivity and extramural support, demonstrated excellence in teaching, and a commitment to undergraduate and graduate education. Candidates in all areas of biology are encouraged to apply. The chair will lead a department of 30 full-time faculty with a broad range of research interests. The department offers undergraduate degrees in biology and medical technology (over 800 students), an MS degree in biology, and a PhD degree in environmental science and public policy (over 200 students). The chair will also help shape the department's interaction with the American Type Culture Collection and the recently established Molecular Bioscience and Technology Institute at GMU's campus in Manassas, VA.

George Mason is the state university for northern Virginia and is located in the metropolitan Washington, DC area. Approximately 24,000 students are enrolled. Candidates should send a letter of interest, curriculum vitae, and representative publications and should request that three letters of reference be sent to:

**Chair Search Committee  
Biology Department  
MSN 3E1**

**George Mason University  
4400 University Drive  
Fairfax, VA 22030-4444**

The closing date for applications is January 15, 1997. *George Mason University is an EEO/AA institution. Minorities and women are encouraged to apply.*

### Tenure Track Faculty Positions Department of Anatomy and Cell Biology

The Department of Anatomy and Cell Biology, chaired by Harvey B. Pollard, Ph.D., M.D., at the Uniformed Services University (USU) School of Medicine, invites applications for tenure-track positions at the Assistant or Associate Professor level. Positions are 12-month appointments with full salary. Applicants should have a Ph.D. and/or M.D. degree, a strong record of outstanding scientific accomplishment, and demonstrated ability or potential to establish and support a competitive, independent research program. The successful applicant will also have the opportunity to contribute to the Department's award-winning teaching programs for Medical and Graduate Students. USU is located in Bethesda, Maryland, immediately adjacent to the National Institutes of Health, the National Library of Medicine, the National Naval Medical Center, the Armed Forces Radiobiological Research Institute, and the Howard Hughes Medical Institute; all share the "Medical Center" subway station. Current Departmental research strengths include neuroscience, molecular and cellular biology, medical genetics, developmental biology, and electrophysiology. Outstanding core facilities are available for state-of-the-art EM and optical imaging, molecular biology, and veterinary science. See our world wide web site for further details (<http://www.usuhs.mil>). Affiliations with the Department's Institute for Molecular Medicine, and with other basic science and clinical departments in the School of Medicine are added opportunities for prospective faculty members. Salaries are competitive and commensurate with education and experience. Applicants should send a complete curriculum vitae and bibliography, a brief NIH "page 6," an outline of their proposed research program, and names and addresses of three referees to:

**Department of Anatomy and Cell Biology  
Search Committee  
Attn: CHRD/TP  
Uniformed Services University of the Health Sciences  
F. Edward Hébert School of Medicine  
4301 Jones Bridge Road  
Bethesda, MD 20814-4799**

Applications must be received by January 1, 1997. Foreign nationals will only be considered if qualified United States citizens are not available. *USUHS is an equal opportunity employer with a strong commitment to racial, cultural, and ethnic diversity.*

### Department of Geosciences PRINCETON UNIVERSITY

announces the 1997 competition for the  
**Harry Hess Fellows**

An Honorary Postdoctoral Fellowship program named for Harry Hess has been established to provide opportunities for outstanding geoscientists to work in the field of their choice. Research may be carried out independently or in collaboration with members of the Geosciences Department. The Fellowships provide an annual stipend along with an allowance for research support. The Fellowships are awarded for one year with a nominal starting date in September of 1997. Extensions for an additional year are possible. Applicants will also be considered for other available postdoctoral positions in the Department. Current areas of research include:

Geochemistry  
Biogeochemical Cycles  
Paleontology  
Mineralogy  
Petrology  
Structural Geology  
Solid-Earth Geophysics  
Seismology

Candidates should send a letter of application and the supporting materials listed below to the Hess Fellows Committee, c/o Professor George Philander, Department of Geosciences, Princeton University, 113 Guyot Hall, Princeton, NJ 08544. Applications must be received no later than January 31, 1997.

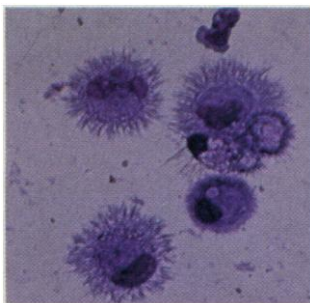
1. Curriculum vitae
2. List of publications and preprints
3. Brief statement of research interests and goals
4. Names and addresses of three referees familiar with the candidate's work (the candidate should arrange to have the letters of recommendation sent directly to the address above).

Princeton University is an Affirmative Action/Equal Opportunity employer and particularly welcomes applications from women and members of minority groups.

# Baylor Institute for Immunology Research

Located in Dallas, Texas, our new research effort focuses on novel therapeutic approaches, such as cell therapy using dendritic cells and gene therapy, to treat immune-related diseases such as autoimmunity, cancer, allergy, infectious diseases, and improve organ transplantation.

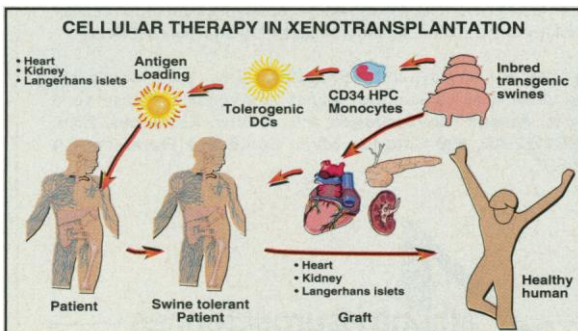
While provisional laboratories are presently available, a new 42,000sqft facility is being developed for occupancy in the spring of 1998. This institute will be located on the campus of Baylor University Medical Center, which is among the largest non-profit hospitals in the United States. Up to 10 laboratories will be provided for basic scientists who will focus their efforts on key clinically relevant problems.



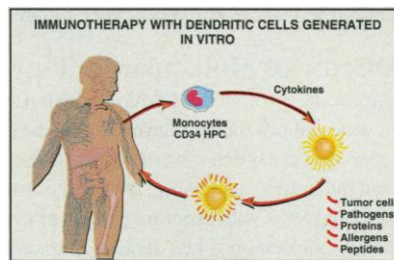
We are seeking established investigators who are highly motivated to understand human diseases and contribute to their cure. Successful candidates will have an MD and/or PhD in the appropriate field, an outstanding publication record, a minimum of five years relevant research experience beyond the doctoral degree, and a demonstrated ability to obtain independent funding to complement their funding from the growing endowment. The candidates are expected to lead teams comprising up to 18 members (technicians, post-docs, students) based upon available funding. Core groups for image analysis, tissue culture, and nucleic acid sequencing as well as an animal facility will be available to support the various laboratories. These investigators are expected to enjoy working as part of a team effort with the Institute staff and Medical Center clinical staff. Physician researchers will have an opportunity to participate in the clinical programs of the Medical Center.

## ***Investigator in Transplant Biology-Immunology***

The candidate should be experienced in either in vivo animal transplantation, cellular and molecular basis of immune rejection tolerance, and/or xenotransplantation. The candidate is expected to demonstrate a strong interest in the development of human organ transplantation, ideally using dendritic cells able to induce tolerance.



## ***Investigator in Cancer Biology-Immunology***



The candidate should be experienced in either tumor immunology, in vivo therapy of mouse/human tumors, and/or the molecular biology of carcinogenesis. The

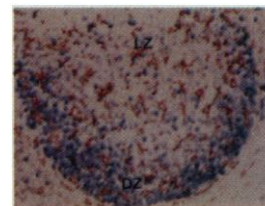
candidate is expected to demonstrate a particular interest in a vaccine approach to cancer, with the goal of treating patients.

## ***Investigator in Molecular Immunology***

The candidate will have extensive experience in molecular biology, preferably as it applies to immunology. Specifically, the candidate should be experienced in either cloning-expression of cytokines and signal transduction molecules, the construction of vectors for gene therapy, or the development of transgenic animals. An ideal candidate will demonstrate a strong interest in the cellular and molecular biology of dendritic cells.

## ***Investigator in Immuno Pathology***

The candidate will have extensive experience in the study of normal and abnormal immune responses in animal models as well as in humans. The candidate should be experienced in either study of cell trafficking leading to the immune responses, or the design of animal models mimicking human diseases. A specific interest in the trafficking of dendritic cells would be ideal. This investigator is expected to work in close collaboration with clinicians of various specialties.



## ***Junior and Senior Postdoctoral Fellowships***

A number of three-year arrangements are available for either recently graduated or more experienced PhD/MD to study the pathophysiology of human dendritic cells with J. Banchereau. Previous experience in molecular/cellular immunology is desirable.

**If interested and qualified, please respond to specific positions with curriculum vitae and a one page synopsis of your research objective to:**

Jacques Banchereau PhD, Director  
Baylor Institute for Immunology Research  
Baylor Research Institute  
P.O. Box 710699  
Dallas, Texas 75246

**No Agency referrals please**  
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Targeted Genetics Corporation is a Seattle-based biotechnology company developing integrated gene and cell therapies for the treatment of acquired and inherited diseases. The Company has an extensive technology platform and three lead product development programs targeting cystic fibrosis, breast and ovarian cancer, and HIV cell therapy. Continued success has created several career opportunities within our organization:

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Play a significant role in providing scientific leadership to drive research into preclinical testing for the company's gene and cell therapy clinical trials. Take primary responsibility for developing nonviral gene delivery systems for *in vivo* gene therapy. Candidates must possess strong research and publication experience, as well as proven management skills, preferably in an industrial setting. Ph.D. with expertise in some or all of the following areas required: molecular biology, biochemistry, cell biology, intracellular trafficking, and gene therapy.

### Staff Scientist - Vector Process Development

Develop, optimize and scale-up production processes for gene therapy vectors. Experience in producing viral vectors or vaccines required. Integrate virological, molecular and biochemical techniques to monitor and validate processes. Knowledge of quality control, cGMP and regulatory requirements required. Ph.D. in cell biology, virology or biochemistry and minimum of 1-3 years relevant experience required.

For consideration, please submit your C.V. to:



### Targeted Genetics Corporation

Human Resources

1100 Olive Way, Suite 100

Seattle, WA 98101

Fax: (206) 521-7872

e-mail: careers@targen.com

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## Postdoctoral Fellow

### CARDIOVASCULAR RESEARCH

The Mount Sinai Medical Center, a leader in patient care, research and medical education, is offering this position for Spring/Summer 1997. Research in hepatic lipoprotein production and enzymes which affect atherogenesis will be conducted via cell and molecular biology techniques; transgenic and knockout models and collaboration with vascular biologists and gene therapists. A recent Ph.D. and cell or molecular biology experience are necessary.

Interested candidates should send a current curriculum vitae and three letters of references to: Dr. Edward A. Fisher, Director of Lipoprotein Research, Cardiovascular Institute, The Mount Sinai Medical Center, Box 1030, One Gustave L. Levy Place, New York, NY 10029-6574. Equal Opportunity Employer.



The Mount Sinai Medical Center

## DRUG METABOLISM & PHARMACOKINETICS

At SmithKline Beecham, our commitment to scientific excellence results in products that promote health and well-being throughout the world. Because innovative, reliable research is critical to our ability to deliver new healthcare solutions, we are seeking a skilled Investigator to act as our liaison with CROs conducting pre-clinical ADME studies supporting the discovery/development of new chemical entities.

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A BS or MS in the life sciences and at least 5 years' experience conducting ADME studies OR a PhD with postdoctoral experience (preferably in an industrial setting) are required. Superior organizational and time management skills, and a solid understanding of pre-clinical ADME work are essential.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation and benefits package. For confidential consideration, please forward your resume and salary requirements to: SmithKline Beecham Pharmaceuticals, Job Code B6-0515, P.O. Box 2645, Bala Cynwyd, PA 19004. For more information on SmithKline Beecham, visit our Website at <http://www.sb.com>. We are an Equal Opportunity Employer, M/F/D/V.



**SmithKline Beecham**  
Pharmaceuticals

Challenging the natural limits.

## Associate Scientist/ Scientist

Athena Neurosciences, Inc. is a growing biotechnology-based company committed to the discovery and development of new products to diagnose and treat diseases of the central nervous system. We are looking for an outstanding individual to join our Alzheimer's Disease Therapeutic Program.

This position involves the use and characterization of neuronal tissue culture models and the PDAPP transgenic mouse model of neurodegeneration for the discovery and development of therapeutics for the treatment of Alzheimer's disease and related disorders. You will develop biochemical assays for the characterization of these disease models and the development of small molecule inhibitors of novel mechanistic targets. The position requires a Ph.D. in Neurobiology or related discipline and 3-4 years of post-doctoral experience. The ideal candidate will be proficient in neuronal tissue culture and basic methods of neurobiology research (cell biology, biochemistry, immunohistochemistry, and molecular biology techniques) and be extremely well-versed in cellular neurobiology and the biochemistry of signal transduction pathways.

Athena offers an innovative and exciting professional, scientific environment in addition to competitive salaries and benefits. Please send resume to: Athena Neurosciences, Inc., Human Resources, Attn: Job# SC1122-AS, 800 Gateway Blvd., South San Francisco, CA 94080. EOE



athena neurosciences

*SCIOS is a biopharmaceutical company engaged in the discovery, development, manufacture, and commercialization of novel human therapeutics. The Company's research and development efforts are primarily focused on acute cardiovascular and renal disorders. We currently have the following excellent opportunities available:*

### **SCIENTIST** **Genomics Technology**

The Genomics Technology group is advancing new methodologies to be applied in the area of cardiovascular disease towards identifying new therapeutics and drug targets. We seek an experienced Scientist to conduct molecular/cell biology research towards identification and characterization of novel targets related to cardiovascular disease. You must possess a PhD in Molecular or Cell Biology with experience manipulating DNA and RNA including cDNA cloning, expression cloning, and DNA transfection. Ref.: 96-071.

### **SENIOR SCIENTIST** **Research Protein Chemistry**

This senior-level Scientist is sought to lead our new Research Protein Chemistry group. You will work closely with the Recombinant Expression group to design expression systems for production of protein reagents for multiple research project teams. You will provide protein purification and characterization for Research projects. You must be prepared with a PhD and 4-8 years' experience, including postdoctoral work. Extensive protein purification experience is desirable, particularly from recombinant sources. Ref.: 96-001.

### **SCIENTIST/SENIOR SCIENTIST** **Protein Chemistry & Process Development**

An energetic, team oriented self-starter is needed to develop and implement in-process HPLC assays for protein-based pharmaceutical products. This successful, detail-oriented candidate will report to the Department Head of Protein Chemistry and Process Development. You must possess a PhD or BS/MS with 5+ years' industry experience along with proven expertise in protein assay development; experience in assay of crude feed streams is highly desirable. Ref.: 96-062.

It is the policy of Scios Inc. to afford Equal Opportunity in employment. Applicants are considered on the basis of their qualifications without regard to race, color, religion, sex, national origin, age, marital status, or the presence of a non-job-related medical condition or physical disability.

Enjoy the benefits of Scios' competitive salaries and excellent benefits package. Please respond to Scios Inc., Human Resources, Ref: \_\_\_\_\_, 2450 Bayshore Parkway, Mountain View, CA 94043. Or FAX to 415/962-5966.

# **scios**



# **Promega**

## **PROMEGA CORPORATION** **SCIENTIFIC CAREER** **OPPORTUNITIES**

### **Production Scientist - Nucleic Acid Chemistry (12100CY)**

This position will manufacture, quality test components/kits and support new product transfer in the nucleic acid purification and sequencing product areas. Requirements for this position include BS/MS degree in molecular biology, microbiology, biochemistry or related field and a minimum 4 years experience in manufacturing position within the areas of responsibility mentioned above; experience using solid and solution phase extraction methods for DNA and RNA; previous experience in the manufacture or use of systems for automated sequencing or automated extraction/purification of nucleic acids; laboratory experience in nucleic acid purification, sequencing and a working knowledge of molecular biology techniques; experience performing radioisotope-based assays. Preference will be given to candidates with experience with use of automated robotics systems; experience with automated fluorescent sequencing; experience or familiarity with TQM, SPC, cGMPs or ISO 9000.

### **R&D Eukaryotic Scientist (11100E)**

Support research efforts in development of eukaryotic expression systems. Requirements for this position include MS or BS in Biology or Chemistry; 2 or more years pertinent experience in Molecular Biology in addition to BS degree; experience with characterization, cloning, sequencing of DNA, and general methods used in Molecular Biology; development and purification of vectors; testing of vectors and systems designed for the expression of genes in eukaryotic systems; transfection methods and reporter gene assays; tissue culture and maintenance of mammalian cell lines.

### **R&D Signal Transduction Scientist (11100ES)**

This position will assist in experiments for evaluation and development of antibodies and kinase assays. Requirements include BA/BS or MS in Biochemistry, Molecular Biology, Cell Biology or a related scientific discipline and 4+ years of laboratory experience; general laboratory experience in the areas of biochemistry, molecular biology, or cell biology. Specific experience required with antibody assays including Western blot assays, ELISA and "supershift" gel mobility assays, kinase assays and preparation of cell extracts for antibody screening and enzyme assays; tissue culture and maintenance of mammalian cell lines.

### **R&D Cellular and Molecular Scientist (11100KW)**

This position will assist in product development using methods in molecular and cellular biology, including mammalian and E. coli cell culture, genetic transformation and protein expression in mammalian and E. coli cells, enzyme assays, reporter vector constructions, random and oligonucleotide-directed mutagenesis, DNA sequencing, and assay method development. Minimum requirements include MS (+2 yrs. thesis research) or BS (+5 yrs. research experience) with demonstrated proficiency in 1) DNA engineering & analysis 2) quantitative enzyme assays and general techniques for protein manipulation & analysis and 3) mammalian cell transfection and general cell culture methods.

Promega, recently cited as one of "The Best Companies To Work For In Dane County" by *In Business* magazine and designated "Top 100 Companies for Working Mothers" by *Working Mother* magazine, strives to provide a rewarding work experience for our employees and to provide unparalleled excellence, quality and prosperity in our business. We seek to preserve a balance between work and life activities, reflected in our on-site fitness and daycare facilities and comprehensive benefit package. To apply, please send a resume with salary requirements to:

**Promega Corporation**  
**Human Resources (JOB CODE)**  
**P.O. Box 7879, Madison, WI 53707-7879**

To hear about current employment opportunities, please call our Career Opportunities Line at (800) 356-9526 or visit our home page at [www.promega.com](http://www.promega.com). EOE



## POSTDOCTORAL POSITIONS

### INTEGRATED STRUCTURAL BIOLOGY RESOURCE

Los Alamos National Laboratory is seeking energetic and talented scientists for multiple postdoctoral opportunities in the newly formed Integrated Structural Biology Resource (ISBR). In particular, we seek individuals who are interested in combining physical and biochemical approaches to study the structural biology of DNA damage and repair systems. Los Alamos National Laboratory has made a commitment to establish the ISBR as a new interdisciplinary initiative involving biological and biochemical approaches, theory, crystallographic structure determination, laser spectroscopic probes of structure and dynamics, structural NMR, and determination of higher-order structures by neutron and X-ray scattering. Exceptional candidates will be considered for highly competitive Los Alamos Postdoctoral Research Appointments or J. Robert Oppenheimer Research Fellowships. For more information, access our home page at <http://www.isbr.lanl.gov>

Current research programs within the resource include:

D. Chen, M. Park, S. Peterson, Z. Shen: Biochemical, genetic and structure-function studies of DNA repair and recombination.

A. Garcia, G. Hummer, C-S Tung: Theory and modeling, structure, dynamics and folding of proteins, nucleic acids and complexes.

B. Dyer, W. Woodruff: Spectroscopic studies of protein folding and dynamics of DNA repair proteins.

G. Olah, J. Trehwella: Small angle X-ray and neutron scattering studies of protein-nucleic acid complexes.

J. Berendzen, T. Terwilliger: Protein crystallography, DNA-protein interaction, MAD phasing, and protein dynamics.

G. Gupta, G. Hernandez, C. Unkefer: NMR structural determination of DNA repair proteins and protein-nucleic acid complexes.

A Ph.D. within the last three years or soon to be completed is required. Annual starting salaries currently range from \$44,020 to \$47,570 plus a generous, comprehensive benefit package. For consideration, submit TWO COPIES of a curriculum vitae and publication listing (including the names, addresses and phone numbers of at least three people who will provide references) to: Postdoctoral Program, **Advertisement PD96172**, Los Alamos National Laboratory, MS P290, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the US Department of Energy.

**Los Alamos**  
NATIONAL LABORATORY



**St. Jude Children's  
Research Hospital**

ALSAC • Danny Thomas, Founder


### POSTDOCTORAL RESEARCH POSITIONS CELLULAR IMMUNOTHERAPY

Two positions are available in the development and implementation of CTL-based therapies for EBV-positive Hodgkin's disease and HPV 6- and 11- associated laryngeal papillomatosis. Part of the work will be carried out in a state-of-the-art CGMP facility. Applicants should have a Ph.D. and a strong background in cellular immunology, tumor cell biology or molecular virology. Please send curriculum vitae and three letters of reference to:


**Cliona Rooney, Ph.D.**  
St. Jude Children's Research Hospital  
332 N. Lauderdale Street  
Memphis, TN 38105

St. Jude Children's Research Hospital is an Equal Opportunity, Affirmative Action Employer.

### SYMPOSIUM



*The University of Pennsylvania*  
*Departments of Chemistry and Pharmacology*



**proudly presents**

**Enzyme Symposium III: Recent Advances in  
Mechanism and Structure and Their Implications for  
Drug Design**

March 13, 1997, Austrian Auditorium, Clinical Research Building

<p><b>Metalloenzymes</b></p> <p>David Ash, Temple Univ. Dennis Stuehr, Cleveland Clinic John Tainer, Scripps Julian Petersen, Univ. of Texas Southwestern Medical Center</p>	<p><b>Combinatorial Protein Libraries/ Molecular Recognition</b></p> <p>Ronald Hoess, DuPont Merck Peter Kim, Whitehead Institute Paul Axelsen, Univ. of Pennsylvania</p>
<p><b>Proteases and their Inhibitors</b></p> <p>Harvey Rubin, Univ. of Pennsylvania Joel Huff, Merck Research Laboratories Wolfram Bode, Munich, Germany</p>	<p><b>Rational Approaches to Drug Design</b></p> <p>Richard Silverman, Northwestern Univ. Charles Carter, Univ. of NC, Chapel Hill</p>

**Registration Information:** Graduate Students: \$10.00; Faculty Members: \$50.00; Scientists from Profit Organizations: \$100.00. Checks must be received by Friday, February 21, 1997. On-site registration will be available at a higher cost.

Please contact one of the sponsoring departments for a registration form:

<p>Department of Pharmacology 153 Johnson Pavilion Philadelphia, PA 19104-6084 phone (215) 898-1184; fax (215) 573-9135 <a href="http://www.med.upenn.edu/~pharm/enzyme.html">http://www.med.upenn.edu/~pharm/enzyme.html</a></p>	<p>Department of Chemistry 350 Chemistry Building, Philadelphia, PA 19104-6323 phone (215) 898-5714, 898-4771 fax (215) 573-2201</p>
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### COURSES & TRAINING

#### 1997 MBL MICROBIOLOGY COURSES

WOODS HOLE, MASSACHUSETTS

**MICROBIAL DIVERSITY, June 15 - July 31**  
For graduate students, postdocs, and established investigators who want to become competent in microbiological techniques for working with a broad range of microbes; and, become familiar with modern molecular genetic approaches for recognizing both possible affinities of as yet uncultivated bacteria and for understanding putative phylogenetic relationships. Limited to 20 students. **Directors: Edward R. Leadbetter, University of Connecticut; and Abigail Salyers, University of Illinois.** **Application Deadline: March 3. Tuition: \$3,600**

**MOLECULAR MYCOLOGY: Current Approaches to Fungal Pathogenesis, August 10 - 30**  
This course provides state-of-the-art training in molecular methods for fungal pathogens important in human disease. Intended for advanced graduate students, postdocs, and independent investigators. Limited to 16 students. **Director: Aaron P. Mitchell, Columbia University.** **Application Deadline: April 15. Course Fee: \$2,000 (room & board offered at no additional charge).**

Substantial financial aid is available. Admission to MBL courses is determined by review committee appointed for each individual course, based upon information submitted in candidate applications. Women and minorities are encouraged to apply.

For application forms and information, contact:  
**Admissions Coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543-1015. Phone: (508) 289-7401 • E-mail: [admissions@mbf.edu](mailto:admissions@mbf.edu) • Web: <http://www.mbl.edu>**

**Metabolex Inc.**, a San Francisco Bay area biotech company dedicated to a better understanding of diabetes and the development of small molecule drug candidates to treat diabetes, currently has several openings for talented scientists to join our team. Candidates should have an M.D. or Ph.D. with at least 2 years of postgraduate research experience in cell biology, molecular biology, or biochemistry. Research training on receptors, signal transduction pathways, and cellular transport is highly desirable.

### **Signal Transduction Group**

Scientists will direct research that defines key steps in signal transduction leading from the insulin receptor to glucose transport. Novel approaches to the identification of molecules involved in insulin signaling are employed to define key steps in this pathway. Experience in recombinant expression of proteins, protein-protein interactions, molecular cloning, and cellular fractionation is preferred.

### **Assay Development Group**

This scientist will direct a group that develops both cell and protein-based assays for drug discovery efforts in insulin resistance, utilizing targets defined by the signal transduction group. Preference will be given to candidates who have at least 2 years of experience in the pharmaceutical or biotech industry, in addition to the requirements listed above. Experience with the development of assays suitable for high-throughput screening programs is desirable.

Metabolex offers competitive salaries and benefits. More detailed information about research and scientists at Metabolex is available upon request. Qualified applicants should send a curriculum vitae to: **Metabolex Inc., Director of Human Resources, 3876 Bay Center Place, Hayward, CA 94545.** *Metabolex is an equal opportunity employer.*



# **Be at the forefront**

...of drug development research with the DuPont Merck Pharmaceutical Company. We are focused on meeting unmet medical needs through the discovery and development of innovative compounds leading to novel pharmaceuticals. We have immediate openings at our Wilmington, DE facilities for the following:

### **Protein Chemist**

Position requires a skilled protein chemist with experience in protein purification and characterization. Expertise in column chromatography, FPLC and gel electrophoresis including IEF is essential. The candidate must also be able to design and establish biochemical assays. Skills in molecular biology and an interest in structural biology is desirable. BS/MS degree in Biochemistry/Chemistry or related field and 2-3 years of work experience is required. (Code: SD-PC)

### **Virologist**

Position open for a cell biologist/virologist with strong molecular biology skills. Position involves both the performance of drug susceptibility testing according to standard protocols, and the development and evaluation of new assay formats. The successful candidate must be willing to work according to company Biosafety protocols in our new state-of-the-art BSL-3 laboratory to perform antiviral testing with infectious HIV. BS/MS degree in Biology, extensive cell culture experience essential, experience in virology, ELISA assay formats, and/or recombinant DNA techniques a plus. (Code: SD-V)

Our location, near Wilmington, DE, offers an attractive lifestyle with easy access to all the cultural, academic and recreational activities of the Eastern Seaboard. The DuPont Merck Pharmaceutical Company can offer you an excellent compensation and benefits package. To be considered, please forward your resume, indicating position of interest, to: Human Resources-(Code), The DuPont Merck Pharmaceutical Company, Experimental Station, 400/2413, P.O. Box 80400, Wilmington, DE 19880-0400. An equal opportunity employer M/F/D/V.

**DU PONT  
MERCK**

**The DuPont Merck Pharmaceutical Company**  
Merging Strengths...Emerging Opportunities.



## HOOD COLLEGE

### Assistant Professor of Biology (2 Positions)

The Hood College Department of Biology invites applications for two positions at the level of Assistant Professor, beginning Fall 1997. We seek candidates who will have completed their doctoral studies by the time of appointment; who show promise of excellence in teaching, together with a willingness to involve students in their research; and whose record of research indicates the potential for sustained scientific accomplishment. Both positions involve responsibilities at the undergraduate and graduate levels; both call for teaching courses in environmental science and resource management, as well as in the candidate's field of specialization.

**1) Ecologist:** Ph.D. in ecology or related field; interests spanning several levels of organization, such as population, community, and ecosystem study.

**2) Organismal Biologist:** Ph.D. in the biological sciences, with preference given to those broadly trained in behavioral/evolutionary ecology and specializing in vertebrates.

A selective residential college for women since its founding in 1893, Hood also serves commuting men and women and graduate students. The Department of Biology offers undergraduate degrees in biology and in environmental science and policy as well as Master's degrees in environmental biology and biomedical science.

Applicants for either position should submit a curriculum vitae, a letter specifically addressing the characteristics outlined in this announcement, a description of current and projected research interests, and three letters of recommendation to: **Dr. Drew M. Ferrier, Biology Search Committee, Department of Biology, Hood College, 401 Rosemont Avenue, Frederick, MD 21701.** Review of applications will begin on 21 January 1997. *E.O.E.*

## CHAIR

### Department of Biological Sciences

The University of North Carolina at Wilmington (UNCW) invites applications and nominations for the position of Professor and Chair of the Department of Biological Sciences in the College of Arts and Sciences. UNCW is situated on a beautiful, 640-acre campus located in an historic port city on the Cape Fear River within 5 miles of the Atlantic Ocean. UNCW currently enrolls over 9,000 students, with enrollment projected to reach 12,000 by 2005.

The department recently moved into a new state-of-the-art classroom and laboratory building. Many faculty also work at UNCW's Center for Marine Science Research at nearby Wrightsville Beach and will have offices and labs in an \$18 million marine research facility soon to be constructed on the Intracoastal Waterway. The department employs 35 full-time faculty, representing a wide range of specialties, and currently enrolls more than 600 undergraduate majors and 75 graduate students. It offers undergraduate and M.S. degrees in biology and marine biology, an undergraduate degree in clinical laboratory science, and a program in teaching certification in biology. The department also participates in interdisciplinary undergraduate degree programs in environmental studies, in an interdisciplinary science program leading to the M.A. in Teaching degree, and in joint Ph.D. programs in marine sciences with NC State University and UNC-Chapel Hill.

The faculty and administration seek a distinguished scientist with a Ph.D. or equivalent degree and an outstanding record in teaching, research, and administrative service. The successful candidate will demonstrate exceptional leadership and administrative skills, including the ability to cultivate faculty having diverse interests, mentor undergraduate and graduate students, and work well with other chairs and administrators. The chair is expected to strengthen existing areas of teaching and research excellence, promote faculty development, facilitate faculty grant and contract activity, and develop interdisciplinary research and instructional programs. The position is expected to be filled by July 1, 1997.

Review of applications will begin January 15, 1997. Applicants should send a curriculum vitae; a concise statement of administrative philosophy; a description of present and future research and instructional interests; and the names, addresses, and telephone numbers of at least three references to: **Dr. Lawrence B. Cahoon, Chairperson Search Committee, Dept. of Biological Sciences, UNC Wilmington, Wilmington, NC 28403; Telephone: 910-962-3706; FAX: 910-962-4066; Email: Cahoon@uncwil.edu; Homepage: www.uncwil.edu**

*The University of North Carolina at Wilmington is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## RESEARCH ASSOCIATES IN TRAINING

**Children's Hospital of Orange County** is seeking Research Associates in Training with a Ph.D. or MD in Natural Sciences, preferably with an emphasis in immunology, cell biology, molecular biology or microbiology. Requires 3+ years experience in hematology and oncology and knowledge of molecular biology or cell biology laboratory methods. Requirement for legal right to work in U.S. per Federal law.

Send resume to **Human Resources Dept., Children's Hospital of Orange County, 455 S. Main St., Orange, CA 92668**, or fax to: (714) 532-8416, Attn: LA. EOE.



### ASSISTANT PROFESSORS Department of Biochemistry, Biophysics and Genetics UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER

We are currently entering a phase of rapid expansion, and several positions will be filled over the next few years. We are now seeking applications for faculty positions in the broadly defined areas of molecular biology and biochemistry. Candidates should have a strong record of research accomplishments, and will be expected to pursue a vigorous, independent research program. Teaching interests and expertise should be suitable for a biochemistry department. Applications should include a curriculum vitae and a statement of research plans. Candidates should also arrange to have three or more letters of recommendation forwarded to:

**Dr. Tom Blumenthal, Chairman Designate, Department of Biochemistry, Biophysics and Genetics, University of Colorado Health Sciences Center, Campus Box B-121, 4200 E. Ninth Avenue, Denver, CO 80262** For full consideration, completed applications should be received by January 15, 1997.

*The University of Colorado Health Sciences Center is committed to equal opportunity and affirmative action.*

### SYSTEMATICS AND EVOLUTION OF LAND PLANTS University of Michigan

The Department of Biology and the University Herbarium seek to fill a tenure-track position in the systematics and evolution of land plants at the level of Assistant Professor, although applications from candidates at all ranks will be considered. People who work with all groups of land plants and use all research methods are encouraged to apply, but preference will be given to those who study bryophytes or pteridophytes and to those who incorporate molecular techniques and data into their research. The successful candidate must be qualified to teach undergraduate and graduate courses in biology and plant evolution and systematics and must develop an active research program in the systematics and evolution of land plants. Candidates must have a Ph.D. in biology, botany, plant sciences, or a related area, and postdoctoral or comparable experience. Applications should include a curriculum vitae, a letter describing teaching and research interests, and reprints of up to three publications. Send these materials and arrange to have three letters of recommendation sent to the following address: **Land Plants Position, Search Committee Chair, University of Michigan, Department of Biology, 830 N. University, Ann Arbor, MI 48109-1048.** Deadline for receipt of application materials is January 31, 1997. *The University of Michigan is an affirmative action, equal opportunity employer.*

# Tenure-Track Positions Assistant Professor Equivalent

## Characterization of Chemokine-Receptor Interactions

The Laboratory of Molecular Immunoregulation, NCI, Frederick, MD is seeking an investigator to conduct independent research on studies of cytokines. Applicants should have a PhD or MD, strong record of scientific accomplishments, strong background in chemokines and their receptors, experience in immunology and molecular biology as demonstrated by high quality peer review published research reports. Space, technical and postdoctoral support provided. Applicants must be U.S. citizens or permanent residents. Submit applications to Dr. Philip Murphy, Chairperson (OE-121), Tenure-Track Search Committee, NIAID, Building 10, Room 11N113, 10 CENTER DR MSC 1888, BETHESDA MD 20892-1888. Deadline is December 15, 1996.

## Geneticist

The Laboratory of Biochemistry and Genetics seeks outstanding applicants interested in developing independent studies of problems of their choosing, using genetics combined with other methods. Preference will be given to those using the simplest system appropriate to solving the problem posed. Candidates should have established strong research credentials with a substantial publication record in leading journals. Submit applications to Search Committee, Laboratory of Biochemistry and Genetics (OE-121), NIDDK, Building 8, Room 225, 8 CENTER DR MSC 0830, BETHESDA MD 20892-0380.

## Medical Oncologist - Translational Researcher

The Navy-Medical Oncology Branch, NCI, seeks an MD or PhD scientist to develop an independent translational research program that operates at the interface of cancer biology and patient diagnosis, treatment, or long-term management, particularly for patients suffering from breast, colon, or lung cancer. Space, technical support, supply budget, and salary are committed. Applicant should be board certified in Medical Oncology. Applicants must be U.S. citizens or permanent residents. Applications must be received within four weeks of the publication of this advertisement. Send to Dr. J. Silvio Gutkind, Chairperson (OE-121), Building 30, Room 211, 30 CONVENT DR MSC 4330, BETHESDA MD 20892-4330.

## To Apply

Please send a cover letter, *curriculum vitae*, bibliography, a one- to two- page statement of research interests and goals, and selected publications to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three references who can provide an evaluation of your professional qualifications.

## New WWW Site

Visit the new NIH Office of Education web site listing tenure-track positions, postdoctoral positions, and much more. Converse by e-mail with NIH investigators and apply electronically. Find us at <http://helix.nih.gov:8001/oe>



## National Institutes Of Health

Office Of Education  
<http://helix.nih.gov:8001/oe>

The NIH is an Equal Opportunity Employer

## NATIONAL SCIENCE FOUNDATION

NSF's Division of Biological Infrastructure (DBI), the Division of Environmental Biology (DEB), the Division of Integrative Biology and Neuroscience (IBN), and the Division of Molecular and Cellular Biosciences (MCB) seek qualified applicants to serve as Program Directors under the provision of NSF's rotational program in the areas listed below.

Responsibilities include research proposal evaluation, budget development, and scientific planning. Broad knowledge and specific research accomplishment are key qualifications. Positions will be filled on a one- or two-year rotational/temporary basis beginning late summer/early fall 1997. The current salary range is \$62,473 to \$97,366; qualification requirements are a Ph.D. or equivalent experience plus six or more years of research experience beyond the Ph.D.

For information RE: DBI programs: Instrumentation, Data Bases, and Computational Biology, call **Dr. James H. Brown, 703/306-1470**; RE: DEB programs: Population Biology, Systematics, Ecology, Ecosystem Studies, Research Collections, Biotic Surveys, and Inventories, call **Dr. Thomas E. Brady, 703/306-1480**; RE: IBN programs: Developmental Mechanisms, Physiology and Ethology, and Neuroscience, call **Dr. Bruce L. Umminger, 703/306-1420**; or RE: MCB programs: Biochemistry, Biophysics, Genetics, and Cell Biology, call **Dr. Julius H. Jackson, 703/306-1440**.

Applicants must submit a resume or other application format of choice. Application must specify the job title for which you are applying, and should include the following information: country of citizenship; information about education, including major and type and year of degree(s); complete information about experiences related to this job, including job titles, duties and accomplishments, employer's name and phone number, starting and ending dates and year, and salary to: **National Science Foundation, Staffing and Classification Branch, Suite 315, 4201 Wilson Boulevard, Arlington, VA 22230, Attn: Catherine Handle**. Hearing impaired individuals should call 703/306-0189. NSF is an Equal Opportunity Employer.



University of New England  
Biddeford, Maine USA

## SCIENCE FACULTY

The University of New England invites applications for four undergraduate tenure track faculty positions at the Assistant Professor level. The Ph.D. degree or equivalent is required. We seek outstanding candidates with demonstrated excellence in teaching as well as a commitment to undergraduate education and curriculum development based upon an integrative and interdisciplinary approach to student learning. Candidates are strongly encouraged to establish research programs involving undergraduates. A new \$18M Alford Science Center will provide excellent and well-equipped laboratory facilities for teaching and research.

- Biochemistry.** Ability to teach general chemistry and biochemistry. Development of advanced biochemistry course offerings in the candidate's area of expertise is expected.
- Physics/Marine Physics.** Ability to coordinate the Department's curriculum in algebra-based general physics and to teach first-year life and health science majors. Preference will be given to candidates with marine interests to take advantage of UNE's affiliation with Bigelow Laboratory of Ocean Sciences.
- Cell/Molecular Biology.** Ability to teach genetics and help continue development of the department's integrated and linked courses in cell biology and biochemistry. Development of advanced molecular course offerings is expected.
- Biology/Microbiology.** Ability to teach introductory biology within the first-year Environmental Learning Community and help develop this unique program of linkages between biology and environmental issues. Ability to teach microbiology occasionally to nursing and pre-med students is also desirable.

UNE is a growth-oriented, young institution located in coastal Southern Maine, only 30 minutes from Portland and 90 minutes from Boston. Salary is commensurate with rank and experience, with an attractive benefits program. Please send letter of application, curriculum vitae, transcripts, a statement of teaching philosophy and research interests, and three letters of recommendation by January 1, 1997, to: **Michael Miles, Director of Human Resources, University of New England, 11 Hills Beach Road, Biddeford, Maine 04005**. For more information, visit our homepage at <http://www.une.edu>.

UNE is an Equal Opportunity, Affirmative Action Employer.





**Senior Faculty Position in AIDS Research  
Center for AIDS Research (NIAID designated)  
NYU MEDICAL CENTER**

New York University Medical Center is seeking a senior researcher in order to strengthen its basic research in AIDS. The appointment is anticipated at the full professor or associate professor level, in the department of either Microbiology or Pathology, depending on the candidate's research interest. The successful candidate will be expected to enhance the existing AIDS research under the umbrella of the Center for AIDS Research (CFAR). Candidates with an interest in molecular retrovirology or HIV pathogenesis are encouraged to apply. NYU Medical Center, with its long and distinguished history of AIDS research and patient care, is one of the nation's leading academic medical centers, located in midtown Manhattan, with all of its cultural treasures and attractions. Recommendations or applications accompanied by a curriculum vitae, including current grant support, should be addressed to **Jan Vilcek, M.D., Chairman, CFAR Search Committee, Department of Microbiology, New York University Medical Center, 550 First Avenue, New York, NY 10016, USA,** and submitted by December 31, 1996.

*NYU Medical Center is an equal opportunity employer.*



**ASSISTANT PROFESSOR OF  
BIOCHEMISTRY  
THE OHIO STATE UNIVERSITY**

The Department of Biochemistry at The Ohio State University is initiating a search for a full-time tenure track faculty member at the Assistant Professor level. We are interested in applicants in the area of proteins: structure and function. The candidate should have a doctoral degree and at least two years of postdoctoral experience. Additional requirements are: a strong record of research accomplishments; commitment to developing an independent, creative research program; and skill in teaching at both graduate and undergraduate levels. A highly competitive recruiting package is available, which includes an attractive salary and substantial funds for equipment and initial operating expenses. The Ohio State University is undergoing a major expansion to develop excellence in Biochemistry and Molecular Life Sciences.

The Ohio State University is the flagship institution of the state's higher education system. It is located in the state capital, Columbus, which is a growing, yet highly affordable, metropolitan area of about 1.3 million people. Columbus has been ranked by *Newsweek* as one of the country's best places to live and work.

Applications should include a detailed curriculum vitae, a description of research experience, and a statement of the nature of the planned independent research program. Applicants should also arrange to have at least three recommendation letters sent to the department. Applications will be accepted until a suitable candidate is hired. Review of applications will begin during January 1997. Information about our Department and University can be obtained by contacting our web site: <http://www.biosci.ohio-state.edu/~biochem/biochem.html> or by calling our offices at 614-292-6771. Application materials should be sent to: **Faculty Search Committee, Department of Biochemistry, The Ohio State University, 484 West 12th Avenue, Columbus, Ohio 43210.**

*OSU in an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR  
Massachusetts General Hospital  
Harvard Medical School**

A faculty position is available at the Cutaneous Biology Research Center of MGH/Harvard. Applicants must have a Ph.D. and/or M.D. degree and relevant postdoctoral experience. Individuals with outstanding accomplishments in a field of molecular or cellular biology that complement or extend existing faculty interests will be considered. Applicants must have a demonstrated ability to develop imaginative approaches to important biological questions. Current faculty members investigate inductive signaling, transcriptional regulation, apoptosis, carcinogenesis, extracellular matrix function, and appendage development, in vertebrate and invertebrate systems. Excellent core facilities and three years of generous start-up funds are available.

All application materials must be received by December 22, 1996 for full consideration. Send curriculum vitae; reprints; brief statement of research directions; and names, addresses and telephone numbers of three references to:

**Paul F. Goetinck, Chair  
Faculty Search Committee  
Cutaneous Biology Research Center  
Massachusetts General Hospital-East  
Building 149 13th Street  
Charlestown, MA 02129**

*The MGH/Harvard Cutaneous Biology Research Center is a committed Equal Opportunity/Affirmative Action Employer. Minorities, women, disabled persons, and veterans are encouraged to apply.*

The University of Nebraska Medical Center (UNMC) invites applications and nominations for the position of Director of Molecular Genetics for the Hattie B. Munroe Center (HBMC) for Human Genetics. Responsibilities of the Director include: leadership of clinical and laboratory-based faculty and staff who are currently carrying out molecular genetic research in HBMC and other units of UNMC; development and direction of a strong graduate program in human molecular genetics; establishment of integrated research efforts with the Directors, faculty, and staff of the Clinical Genetics and Cytogenetics sections; and maintenance of an active research program. Considerable resources have been made available by departments throughout the campus for this position, including a competitive start-up package and funds for concurrent recruitment of new faculty. The Director and new faculty will be eligible for appointments within the participating departments. Ample laboratory space will be provided in the new HBMC addition.

Applicants must have a doctorate; a history of scientific accomplishments commensurate with an academic appointment at the rank of Associate Professor/Professor; a strong record of extramural research funding; and administrative experience in program direction, supervision of personnel, and budget information. Expertise in cancer genetics is preferred because of existing areas of excellence in this field, including an NCI-designated cancer center, but all areas of human molecular genetics will be considered. Review of applications will begin October 1, 1996, and will continue until the position is filled. Applications, along with a current vitae and the names and addresses of four references, should be submitted to **G. Bradley Schaefer, M.D., Director, Search Committee and Associate Director, Hattie B. Monroe Center for Human Genetics, University of Nebraska Medical Center, 600 S. 42nd Street, Omaha NE 68198-5430.**

*The University of Nebraska Medical Center is an EEO/AA Employer. Women, minorities, and persons with disabilities are encouraged to apply.*





## St. Jude Children's Research Hospital

ALSAC • Danny Thomas, Founder

**Postdoctoral Research Associate** position is available immediately for a project on DNA-repair gene transfer as a means to protect bone marrow against anti-cancer alkylating agent toxicity (see Blood 88:2298-2305, 1996). Qualified candidates must have a recent Ph.D in biochemistry, molecular biology or related field and a strong background in molecular genetics. Experience with use of viral vector systems is highly desirable.

Send c.v. and names (e-mail address, fax and phone numbers) of three references to: **Dr. Thomas P. Brent, Department of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105. e-mail: brent@stjude.org Fax: 901-521-1668.** An equal opportunity/affirmative action employer.

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## Improving Bodies



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Since 1981, our mission to end human suffering has placed us at the forefront of genetic engineering, diagnostic, therapeutic, vaccine and ophthalmic development. Nearly 7,000 employees worldwide are behind these and other remarkable accomplishments: blood-screening products to prevent the transmission of disease, cancer treatments, the first effective treatment for multiple sclerosis and products to help physicians work with patients with vision disorders.

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### Principal/Senior Scientist—Biochemical Pharmacology

You will play a significant role in solving unique problems of High Throughput Screening technology and assist in the development of a novel screening effort using cellular and molecular targets. "Hands-on" robotics/automation experience, as well as familiarity with database approaches, data analysis and results interpretation will be required. To qualify, you must be a Ph.D Scientist or equivalent with at least 5 years' experience in drug screening and management of an High Throughput Screening group or laboratory in an industrial setting. A background in biochemistry, pharmacology or molecular biology is also essential. Job Code AH

### Post-doctoral position

The ideal candidate will have training in medical microbiology as well as molecular biology experience. Phage display experience preferred but not required. Job Code JW

We offer a competitive compensation and benefits package. If you'd like to explore career opportunities with us, please send your resume, indicating Job Code, to: Chiron Corporation, Human Resources, 4560 Horton Street, Emeryville, CA 94608. We are an equal opportunity employer.

# CHIRON

INDIANA UNIVERSITY

## FACULTY POSITIONS



## INDIANA UNIVERSITY CANCER CENTER

Applications are being accepted for tenure-track faculty positions at the rank of Assistant or Associate Professor for researchers interested in experimental and molecular therapeutics of cancer. Research areas of interest may include anti-cancer drug resistance, cell cycle control, apoptosis pathways, signal transduction, anti-cancer drug discovery, and other areas applicable to translational research programs. Applicants must possess a Ph.D. or M.D. degree, and have a proven track record in obtaining peer-reviewed extramural funding. Successful candidates will have academic appointments in a basic science department of the Medical School, and some teaching of medical students and graduate students is expected. Generous start up packages and state-of-the-art research laboratory space will be provided in the new 80,000 sq. ft. Indiana University Cancer Research Institute (opening Spring, 1997). This facility is the focus of a highly interactive group of basic scientists and clinicians involved in the I.U. Cancer Center. Applicants should submit a C.V. and a description of current and future research programs, and should arrange for three letters of recommendation to be forwarded to the address below.

**Leonard C. Erickson, Ph.D., Associate Director, Basic Research, Indiana University Cancer Center, 535 Barnhill Drive, Indianapolis, IN 46202**

*Indiana University is an Affirmative Action/Equal Opportunity Employer. Women and Minorities are encouraged to apply.*

## TENURE-TRACK OR TENURED POSITION FOR A DEVELOPMENTAL BIOLOGIST AT THE NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES NATIONAL INSTITUTES OF HEALTH

A position is available for a Developmental Biologist to establish an independent basic research program and to form a research group in the Laboratory of Reproductive and Developmental Toxicology, Division of Intramural Research. Applications are invited from scientists with demonstrated ability for creative and productive research in cellular and molecular mechanisms of mammalian development. Of particular interest are investigators using rodent models to study cell interactions, imprinting and other basic biomedical problems relating to the impact of the environment on development. The successful candidate will interact with investigators studying diverse problems in reproductive biology, developmental toxicology, hormone mechanisms, signal transduction, cell cycle regulation, cell growth and differentiation, apoptosis, gene regulation, mutagenesis and DNA repair, and cancer biology.

The position is available to citizens or permanent residents of the United States. Minimum qualifications are a doctoral degree in the biomedical sciences, three years of postdoctoral experience, and publications in quality journals. Salary will be commensurate with the experience and qualifications of the candidate. Applications from women or members of minority groups are particularly welcome. Potential candidates should provide a curriculum vitae and bibliography, a 2-5 page statement of current research interests and goals, and arrange for three letters of recommendation to be sent **before 3 January 1997** to:

**Ms. LISA ROGERS**

**HUMAN RESOURCE MANAGEMENT BRANCH (HNV96-23)**

**NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES**

**NATIONAL INSTITUTES OF HEALTH**

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**(919) 541-7513**

**e-mail: rogers2@niehs.nih.gov**

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## POSITIONS OPEN

### TENURE-TRACK FACULTY POSITION Vertebrate Development University of Massachusetts, Amherst

The Biology Department, in cooperation with the Neuroscience and Behavior Program at the University of Massachusetts, Amherst, invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. We are seeking an individual using cellular, molecular, or genetic approaches to address fundamental problems of development in a vertebrate model system. Preference will be given to candidates who complement existing strengths in *Drosophila* neurodevelopment, cell death, evolution, mammalian development, or neuroendocrinology. Candidates will be expected to have a strong commitment to undergraduate and graduate education, to teach a course in developmental biology, and to be willing to contribute to other appropriate areas. We offer an excellent environment in which to establish a competitive academic research career, including generous laboratory space and start-up support. Salary is commensurate with experience. A Ph.D. and postdoctoral experience is required. Interested candidates should mail curriculum vitae and statement of research and teaching interests, and should arrange for three letters of reference to be sent to: **Vertebrate Development Search Committee, Department of Biology, Morrill Science Center, University of Massachusetts, Amherst, MA 01003**. Applications will be evaluated beginning January 1, 1997. Direct questions via Email: [develsearch@bio.umass.edu](mailto:develsearch@bio.umass.edu). The University of Massachusetts is an Equal Opportunity/Affirmative Action Employer.

### PLANT DEVELOPMENTAL BIOLOGY

The Botany Department at the University of Georgia has an opening at the **ASSISTANT PROFESSOR** level for a plant developmental biologist interested in answering questions of fundamental importance to plant growth and differentiation. Areas of interest could include signal perception and transduction, plant growth substances, fertilization and incompatibility, and morphogenesis. We seek an individual who utilizes innovative molecular approaches to address questions in these areas. The Botany Department has strengths in several areas of plant biology and extensive links to other plant-related programs on campus. Further information is available at <http://www.botany.uga.edu/>. Candidates should submit a curriculum vitae, a short (two-page) statement of future research and teaching interests, and reprints of up to five research papers, and should arrange to have four letters of recommendation sent to: **Chairperson, Plant Developmental Biology Search Committee, Botany Department, Miller Plant Sciences Building, University of Georgia, Athens, GA 30602**. The application deadline is January 6, 1997. The University of Georgia is an Affirmative Action/Equal Opportunity Employer.

Morehead State University seeks applications for four tenurable positions at **ASSISTANT PROFESSOR** of Biology level (Plant Physiology/Pathology, Zoology, Human Physiology, and Environmental Science). To teach courses at the undergraduate and graduate level; direct and advise students; and be productive in professional achievement, research, and service. Ph.D. (or ABD with imminent completion) from an accredited institution and evidence of excellent written and oral communication. For specific details and additional requirements write to: **Office of Human Resources, Attn: (Identify Specific Area), Morehead State University, HM 101, Morehead, KY 40351**. Telephone: 606-783-2097. To ensure consideration, submit letter of application to a specific opening, curriculum vitae, statements of teaching philosophy and research interests, transcripts, and three letters of reference by January 10, 1997. *Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN CELL BIOLOGY

The Department of Biology at Clark University invites applications for a tenure-track faculty appointment in Cell Biology at the **ASSISTANT PROFESSOR** level. The successful candidate will be expected to establish a productive research program, teach a cell biology course and a graduate course in the area of research interest, and participate in Introductory Biology. Formal review begins January 6, 1997. Applicants should submit a curriculum vitae, two reprints, a statement of teaching and research interests, and the names of three references to: **Chair, Cell Biology Search Committee, Department of Biology, Clark University, 950 Main Street, Worcester, MA 01610**. Clark University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### MASSACHUSETTS GENERAL HOSPITAL NMR Physicist

We are seeking a candidate to fill a position at the **ASSISTANT PROFESSOR** level. The position includes maintenance of clinical MRI systems with EPI and spectroscopy capabilities, and development of an independent research effort at the interface of biomedical research and NMR physics. Requirements include a Ph.D. in physics and at least three years of postdoctoral experience. Expertise in MR imaging including EPI applications (diffusion weighted imaging and brain activation using the BOLD technique) as well as *in vivo* MR spectroscopy of humans is essential. A background in high resolution in MR and in modern solid state NMR techniques is highly desired. A publication record indicative of significant promise as an independent researcher is important.

Please send cover letter, curriculum vitae, and list of three references to:

**R. Gilberto González, M.D., Ph.D.  
Director of Neuroradiology  
Gray 2—Room B-285  
Massachusetts General Hospital  
Fruit Street  
Boston, MA 02114**

*We seek applications from interested women and minority candidates.*

### ASSISTANT/ASSOCIATE PROFESSOR OF ANIMAL BIOLOGY UNIVERSITY OF PENNSYLVANIA

The Department of Animal Biology, School of Veterinary Medicine at the University of Pennsylvania, has a **TENURE-TRACK** opening for an Assistant or Associate Professor to join the newly established Center for Animal Transgenics and Germ Cell Research. Individuals investigating fundamental mechanisms of animal transgenesis and germ cell biology are encouraged to apply. Applicants should have a Ph.D. or equivalent degree; have a minimum of two years of postdoctoral training; be prepared to establish an independent, extramurally funded research program; and be prepared to participate in the activities of the Center as well as departmental teaching and University-wide graduate programs. Send by January 31, 1997 a curriculum vitae, the names and addresses of three references, and a statement of research program to: **Dr. Steven J. Fluharty, Chair of the Animal Transgenesis Search Committee, Department of Animal Biology, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6046**. An *Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION ASSISTANT PROFESSOR

**FACULTY POSITION**, Cellular and Molecular Physiology. The Department of Physiology, University of Wisconsin-Madison, invites applications for a tenure-track position at the rank of assistant professor. The Department is developing a focus in membrane transport physiology and specifically seeks applicants who study carrier-mediated transport across cell membranes, although outstanding applicants in other areas of molecular physiology will be considered. Opportunities for participation in campus-wide interdisciplinary research and training programs are excellent. Successful candidates will teach renal or gastrointestinal physiology and will participate fully in the graduate and professional teaching programs of the Department.

Applicants should send curriculum vitae, a one- to two-page summary of research interests and plans, and three letters of reference to: **Dr. Richard L. Moss, Chair, Department of Physiology, University of Wisconsin, 1300 University Avenue, Madison, WI 53706**. Applications will be accepted until January 11, 1997. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Woman and minorities are especially encouraged to apply.*

Washburn University of Topeka has a fall 1997 tenure-track **ASSISTANT PROFESSOR** position for a general botanist. Qualifications include Ph.D. in botany, teaching experience, expertise in Great Plains flora, and research program suitable for undergraduate biology program. Application review begins January 15, 1997 and will continue until position is filled. Send teaching philosophy and research statements, curriculum vitae, transcripts, and three letters of reference to: **Dr. Betty Cole, Biology Chair, Washburn University of Topeka, Topeka, KS 66621**. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### BIOTECHNOLOGIST/INDUSTRIAL MICROBIOLOGIST

**ASSISTANT PROFESSOR**, tenure-track position in Biotechnology/Industrial Microbiology; September 1997. Salary: \$37,140 to \$46,812. Ph.D. required. Responsibilities include teaching Biotechnology/Industrial Microbiology and Introductory Microbiology; student advising; directing student's undergraduate and Master's research, and participating in the Biotechnology Program and Environmental Biotechnology Institute. Strong background in natural product discovery, genetics of industrially important microorganisms, or molecular biology in industrial processes desired.

The Biological Sciences Department offers the B.S. degree in biological sciences, ecology and systematic biology, and microbiology; and M.S. degree in biological sciences.

Send letter of interest and curriculum vitae to: **Dr. V. L. Holland, Chair, Biological Sciences Department, California Polytechnic State University, San Luis Obispo, CA 93047**. Refer to Recruitment Code 73032. Deadline is January 15, 1997.

*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.*

### ASSISTANT PROFESSOR BIOLOGICAL SCIENCES Carnegie Mellon University

Applications are invited for a **TENURE-TRACK** position at the level of Assistant Professor. The successful candidate is expected to develop an independent research program and to participate in the teaching of undergraduate and graduate students. We are especially interested in applicants who use molecular genetic analysis to study fundamental biological processes in tractable eukaryotic systems. We particularly encourage applications from candidates whose work makes innovative use of emerging information about whole genome structure and function and can benefit from local strengths in yeast molecular genetics, microscopy, biological detection, imaging, and computing. Applicants must have a Ph.D. and relevant experience. Please send a curriculum vitae and a description of the proposed research program and have three letters of recommendation sent to: **Biological Sciences Search Committee, Carnegie Mellon University, Box L, 4400 Fifth Avenue, Pittsburgh, PA 15213 U.S.A.**

*Our department is eager to diversify its faculty; we encourage women and minorities to apply. Carnegie Mellon University is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR PLANT BIOLOGY

The Department of Botany at Arizona State University invites applications for a **TENURE-TRACK** faculty position at the Assistant Professor level. Preference will be given to candidates applying imaginative molecular genetic approaches to solve fundamental questions at the organismal level. This can relate to structural, functional, or developmental issues and should complement existing strengths in the department. The successful candidate will be expected to develop a vigorous extramurally funded research program and contribute to teaching at the undergraduate and graduate level. Applicants must have a Ph.D. or equivalent, productive postdoctoral research experience, and teaching experience. Information about the department can be found at <http://lsvl.la.asu.edu/botany/>. Applicants must send a curriculum vitae and statement of research interests, and have three letters of reference sent to: **Andrew Webber, Search Committee Chair, Department of Botany, Arizona State University, Box 871601, Tempe, AZ 85287-1601** by January 15, 1997. *Arizona State University is an Equal Opportunity/Affirmative Action/Title IX Employer.*

### BIOLOGIST

Tenure-track **ASSISTANT PROFESSOR** position (Ph.D. required) in a small liberal arts college in southeastern Michigan. All specialties will be considered, especially plant ecology, plant-animal interactions, invertebrate biology, and aquatic biology. Teaching responsibility will usually be two courses (with labs) each semester, with one of the four being a one-semester non-major biology course. Send curriculum vitae, transcripts, a statement of teaching and research interests, and the names and addresses of at least three references to: **Biology Search Chair, Biology Department, Adrian College, Adrian, MI 49221**. All materials should be received by January 21, 1997. *Equal Opportunity Employer.*

## N E X t r a n

**NEXTRAN**, an established leader in xenotransplantation research and an affiliate of Baxter Health Care, has a position available for a Research Scientist in our Xenotransplantation Program.

Candidates for this position must have a Ph.D., with a minimum of 2 years of post doctoral training. We are seeking an experienced immunologist with a strong working knowledge of transplant immunology and/or molecular immunology. Experience with transgenic animal models is a plus.

**NEXTRAN** offers an excellent working environment, as well as competitive compensation and superior benefits. Qualified applicants are invited to submit a CV to:

**Human Resources  
NEXTRAN  
303B College Road East  
Princeton, NJ 08540  
FAX (609) 520-9864**

### The University of Texas at Austin Assistant Professor Molecular/Cellular Biology

A tenure-track assistant professor is being sought to join a group of nutritional molecular biologists in the Division of Nutritional Sciences. Applicants should have a desire to define the function of nutrients in developmental processes, and/or their role in the etiology of nutritionally related diseases. The successful candidate will develop an independent research program in the molecular or cellular biological aspects of nutrition, and teach in the undergraduate and graduate program. A Ph.D. and postdoctoral experience is required, and preference will be given to applicants with demonstrated research productivity, grantsmanship, and teaching competency. Send curriculum vitae, transcripts, selected research publications, a statement of research interests, and names of references to:

**Dr. Steven D. Clarke, Chairman  
M.M. Love Chair of Nutritional,  
Molecular, and Cellular Sciences  
GEA 115/A2700**

**The University of Texas  
Austin, Texas 78712**

e-mail: [stevedclarke@mail.utexas.edu](mailto:stevedclarke@mail.utexas.edu)

Applications received by December 31 will receive full consideration.

*The University of Texas at Austin is an Equal Opportunity/Affirmative Action Employer.*

## The Science of Agricultural Genetics

### RESEARCH ASSOCIATE

**Analytical Biochemistry - Protein Validation (Job #AB-706)**

The primary responsibility of this position is the application of immunoassay and other biochemical analyses to the analysis of transgenic plants in regulatory studies. This person will be responsible for following study protocols, conducting experiments per stated protocols, managing and analyzing data. This person will also assist in the validation of assays when needed. We require an MS degree or a BS degree with two years directly related lab experience or equivalent in biochemistry, biology or molecular biology, as well as experience in immunoassays and other protein/biochemistry analyses; knowledge of or experience in conducting studies under Good Laboratory Practices (GLP) guidelines; experience in transgenic plant analysis; familiarity with computers and statistical analyses; excellent communication skills, both technical and interpersonal; and experience with or ability to learn how to operate specialized laboratory equipment.

### POST-DOCTORAL ASSOCIATE

**Grain Traits (Job #GT-706)**

A post-doctoral position is available to study mechanistic aspects of protein secretion in higher plant cells. In particular, the project requires a strong background in the molecular biology of yeast, preferably *Saccharomyces pombe* as a model for the secretory pathway of higher eukaryotes. The project also requires a strong background in both molecular biology and modern methods of analyzing protein interactions (eukaryotic recombinant protein expression, two hybrid systems and phage display).

Pioneer Hi-Bred International, Inc. offers an opportunity to interact among hundreds of scientists with diverse backgrounds. We offer competitive salaries and excellent, comprehensive benefits. Des Moines is a prospering heartland city that ranks well above the national averages in affordability and education. Our location provides a mix of beautiful open spaces and city life advantages. For confidential consideration send 3 copies of your cover letter and current resume, indicating job number, by December 15, 1996 to: Pioneer Hi-Bred International, Inc., Attn: PERSONNEL (Job #AB-706 or GT-706), P.O. Box 1004, Johnston, IA 50131-1004.

Pioneer Hi-Bred International, Inc., is the world leader in agricultural genetics. Founded in 1926, we are a publicly held company that invests more than \$115 million in research and product development. Pioneer® brand products are grown in almost every crop-producing continent in the world. At our headquarters in Des Moines, Iowa, we're adding to our Research team.



**PIONEER HI-BRED  
INTERNATIONAL, INC.**  
*An Equal Opportunity  
Employer*

### St. Jude Children's Research Hospital

ALSAC • Danny Thomas, Founder

## Postdoctoral Position in Developmental Biology

## Department of Genetics St. Jude Children's Research Hospital

Postdoctoral position is immediately available to study the role of homeobox genes in murine pattern formation, with a special emphasis on eye (*Proxl*, *Six3*) and limb (*Six1* and *Six2*) development. The position is ideal for someone with a biological background, who has recently obtained a Ph.D. and/or M.D. with laboratory experience, and who would like to pursue training in developmental biology.

St. Jude provides an ideal research environment with strong and highly interactive research programs in biochemistry, developmental neurobiology, experimental oncology, genetics, immunology, molecular pharmacology, structural biology and tumor cell biology. Major common facilities are available including those for generation of transgenic mice.

Interested candidates should send a Curriculum Vitae and three letters of reference to **Guillermo Oliver, Ph.D., Department of Genetics, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38105, USA.**



## POSITIONS OPEN

### MOLECULAR LIFE SCIENTIST (CELL AND MOLECULAR BIOLOGIST) San Diego State University

A tenure-track faculty position is available at the **ASSISTANT/ASSOCIATE PROFESSOR** level for a cell and molecular biologist with research and teaching interests related to biotechnology. The successful candidate is expected to establish an independent basic research program relevant to the biotechnology industry; to mentor students in the M.S. and Ph.D. programs in cell and molecular biology; to teach in a new integrated undergraduate biochemistry, cell biology, and molecular biology course series; and to interact with a diverse faculty and student body. The candidate is also expected to work with Biology, Chemistry, Engineering, and Business faculty to establish novel, interdisciplinary programs devoted to biotechnology-related training and research. Previous experience and continued liaison with the biotechnology and/or bio/pharmaceutical industry is desirable.

A Ph.D. in a relevant field and postdoctoral experience are required. Applicants must submit a curriculum vitae, research/teaching statement, and selected reprints and arrange to have three letters of recommendation sent to: **Molecular Life Scientist Search Committee, Department of Biology, San Diego State University, San Diego, CA 92182-4614**. Review of applications will begin January 6, 1997. Visit <http://www.bio.sdsu.edu/>. *San Diego State University is an Affirmative Action/Equal Opportunity/Title IX Employer and does not discriminate against persons on the basis of race, religion, national origin, sexual orientation, gender, marital status, age or disability.*

### ASSISTANT PROFESSOR OF ENOLOGY Assistant Microbiologist in the Experiment Station University of California, Davis

The Department of Viticulture and Enology invites applications for an eleven-month term appointment (nine-month tenure-track) **ASSISTANT PROFESSOR** position. A Ph.D. in microbiology or related discipline is required; postdoctoral experience desirable. Will be expected to develop a vigorous externally funded research program in wine microbiology, direct graduate (M.S. and Ph.D.) students, and teach at the undergraduate and graduate level.

Expertise should complement existing programs in microbiology with preference given to the field of lactic acid bacteria.

Send letter of interest, curriculum vitae, a statement of research and teaching goals, graduate transcripts (if within five years), and names/addresses of three references to: **Dr. Linda F. Bisson, Search Chair, Department of Viticulture and Enology, University of California, Davis, CA 95616-8749**. The position will remain open until filled. To ensure consideration, applications must be received by February 15, 1997. Applications by facsimile will not be accepted.

### ASSISTANT PROFESSOR TENURE-TRACK Georgetown University School of Medicine Department of Pharmacology

The Department of Pharmacology at Georgetown University invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR**. Candidates should have postdoctoral experience, preferably, but not exclusively, in research oriented toward molecular and cellular approaches to cardiovascular studies. Preference will be given to individuals with a strong commitment to excellence in research and teaching in pharmacology.

Candidates should forward their curriculum vitae, a summary of research interests with an indication of future research directions, and names of three references by February 1, 1997 to: **Dr. Barbara M. Bayer, Chair, Pharmacology Search Committee, Georgetown University School of Medicine, 3900 Reservoir Road, NW, Washington, DC 20007**.

*Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

### ZOOLOGY, PHYSIOLOGY

Two **TENURE-TRACK FACULTY** positions to begin August 1997 at Utah Valley State College, Orem, Utah. Ph.D., teaching experience, and demonstrated expertise in zoology or mammalian physiology required. First screen January 17, 1997. Contact: **Human Resources, Telephone: 801-222-8207** or visit home page [www.uvsc.edu](http://www.uvsc.edu) or Email application request to [bartlena@uvsc.edu](mailto:bartlena@uvsc.edu). No résumés accepted without application form. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### EXECUTIVE DIRECTOR FOR THE NETWORK OFFICE Long-Term Ecological Research Network

Applications are invited for the position of Executive Director of the Long-Term Ecological Research (LTER) Network Office at the University of New Mexico. The LTER Network Office serves the organizational, communication, and networking needs of the LTER Network and the connection to the International LTER Network. Additional information on LTER can be found at <http://LTERnet.edu>. The candidate must have a Ph.D. degree in some area of environmental science, demonstrated experience in project and personnel management, and evidence of excellence in publication and grant writing at a level normally associated with the status of **ASSOCIATE** or **FULL PROFESSOR**. Primary responsibilities include facilitating the development of cross-site and synthesis activities within the LTER Network, developing interactions with non-LTER sites and programs (national and international), and developing public outreach and communication through television and print media. The Executive Director reports directly to the Chair of the LTER Network Committee. Salary is in the range of \$60,000 per year with either a nine- or twelve-month appointment. Rank and starting date are negotiable.

Applicants should send a curriculum vitae, a list of five references, and a letter that describes previous management experiences and why the applicant feels she or he is qualified to be the Executive Director of the LTER Network Office. Send applications by January 15, 1997 to:

**Chair, LTER Coordinating 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 January 15, 1997.

### EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION

The Biomedical Sciences Division of the Shriver Center is seeking a scientist (Ph.D. or M.D.) to establish a high quality, basic and/or clinically related research program in **NEUROSCIENCE** relevant to mental retardation and developmental disabilities. Applicants should be at the Assistant/Associate Professor level, with an independently funded research program. Expertise in modern cell and molecular biological approaches to developmental neurobiology and/or neurobiology of genetic disorders is preferred.

The Shriver Center, located in suburban Boston, is affiliated with Massachusetts General Hospital (MGH) and Harvard Medical School. Ample opportunity is available for collaborative research within the greater Boston biomedical community and for joint appointments at MGH and Harvard.

Interested candidates should send curriculum vitae, a short description of research plans, and names of three professional references to: **Dr. Firoze Jungalwala, Chairman—Search Committee, Biomedical Sciences, E. K. Shriver Center, 200 Trapelo Road, Waltham, MA 02254. Telephone: 617-642-0136; FAX: 617-893-4824; Email: [FJungalwala@Shriver.org](mailto:FJungalwala@Shriver.org). Visit our Web site at <http://www.shriver.org>**

*The Shriver Center is an Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR PHARMACOLOGIST

The University of Pittsburgh School of Medicine invites applications for two tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level. We seek individuals trained in the techniques of molecular and cellular pharmacology whose research interests focus on signal transduction and/or contemporary approaches to drug discovery and novel targets. Current areas of expertise in the department include neuropharmacology, cardiopulmonary pharmacology, and cancer pharmacology.

Applicants must have a Ph.D. and/or M.D. and relevant postdoctoral experience. It is expected that the successful applicant will seek and obtain independent extramural research funds. Send curriculum vitae, summary of research interests, and the names of three references to: **John S. Lazo, Ph.D., c/o Jeff A. Walker, M.B.A., Department of Pharmacology, University of Pittsburgh School of Medicine, W1343 Biomedical Science Tower, Pittsburgh, PA 15261**.

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

## POSITIONS OPEN

### CHAIR Department of Microbiology and Immunology

The University of North Dakota School of Medicine and Health Sciences invites applications and nominations for the position of **CHAIR** of the Department of Microbiology and Immunology. We seek an outstanding medical scientist with a strong research record in immunology, pathogenic microbiology, or virology who will complement, expand, and strengthen existing areas of research in the Department. The candidate will be expected to participate in medical and allied health education and therefore must be committed to excellence in teaching. The applicant should also possess interpersonal and leadership skills in mentoring faculty, directing students, and performing administrative duties.

Specific information concerning faculty research interests, course offerings, and facilities is available at <http://www.med.und.nodak.edu/depts/microb/home.htm>.

Review of applications will begin January 15, 1997, but the search will remain open until the position is filled. Applicants should submit a detailed curriculum vitae; a statement that addresses administrative philosophy, research goals, and teaching interests; and the names and addresses of three references to: **Dr. David W. Hein, Chair of the Department of Pharmacology and Toxicology and Chair of the Search Committee, c/o Office of the Dean, School of Medicine and Health Sciences, University of North Dakota, Box 9037, Grand Forks, ND 58202-9037**.

*The University of North Dakota is an Equal Opportunity/Affirmative Action institution.*

### FISHERIES BIOLOGIST

Full-time, tenure-track, **ASSISTANT PROFESSOR**, Department of Forestry and Natural Resources, Purdue University. Research responsibilities (60%): conduct research in freshwater fisheries management at the population or community level. Example areas of emphasis are food chain dynamics, competitive interactions, effects of land-use change on aquatic communities, and habitat evaluation and restoration. Teaching responsibilities (40%): undergraduate and graduate courses (at least two per year) in fisheries biology and the field practicum. A Ph.D. degree in fisheries biology, fisheries management, aquatic ecology, or related field and ability to work effectively with resource management agencies required. Applied research and international experience are desirable. Review of applications begins January 15, 1997. Send résumé; transcripts; copies of leading publications; and statement of professional goals, teaching philosophy, and research interest, and arrange to have at least three letters of reference sent. Address correspondence and inquiries to: **Dr. Anne Spacie, Chair, Fisheries Biologist Search Committee, Department of Forestry and Natural Resources, Purdue University, 1159 Forestry Building, West Lafayette, IN 47907-1159. Purdue University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

### ASSISTANT OR ASSOCIATE PROFESSOR Departments of Medicine (Oncology) and Genetics Stanford University School of Medicine

We are seeking candidates who can develop an independent research program in the field of cancer genetics. We are especially interested in investigators eager to exploit the emerging human genome sequence information in innovative ways. Participation in clinical care activities and teaching will be expected. Candidates should have a strong background and significant laboratory research accomplishments in oncology or human molecular genetics, ideally both. Please send curriculum vitae, a statement of career plans, and names of three references to: **Ronald Levy, M.D., Chief, Division of Oncology, Stanford University School of Medicine, SUMC M211, Stanford, CA 94305-5306. Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.**

Microbiologist Ph.D. Begins fall of 1997. **TENURE-TRACK** position to teach microbiology, human anatomy and physiology, and other courses in biology department. Participation in modest undergraduate research encouraged. McMurtry University is a selective liberal arts school affiliated with the United Methodist Church. Enrollment: 1400. Biology majors: 100. Send curriculum vitae, letter of application, reference list, and transcript to: **Dr. Gary Wilson, Dean of Arts and Sciences, McMurtry University, Abilene, TX 79697-0057. Deadline: December 31, 1996.**

### Biology Faculty Positions San Diego State University

Two tenure track appointments at Assistant Professor level, but Associate level possible, in the Biology Department as early as Fall 1997. Ph.D. and active research program required; postdoctoral experience and interest in interacting with a diverse student body highly desirable.

**1. Evolutionary Biologist.** Must have expertise in recent birds, addressing evolutionary, ecological, biogeographic, molecular, or functional problems preferably within a phylogenetic context. Must interact with faculty and mentor students in organismal biology, evolution, and systematics. Teaching to include ornithology and, preferably, comparative vertebrate anatomy or functional morphology and periodic involvement in a majors or non-majors course in evolution or introductory biology.

**2. Vertebrate Conservation Ecologist.** Must have expertise in population biology, community ecology, physiology, or behavior to address problems in conservation ecology. Will interact with a 16-member faculty group in ecology. Teaching to include graduate and undergraduate courses in conservation ecology and other courses as appropriate.

More information on both positions available on the internet at <http://www.bio.sdsu.edu/>. Closing date for receipt of applications is January 3, 1997. Applicants for either position must submit a CV; research/teaching/mentoring statement; and names, addresses and phone numbers of three references to **Evolutionary Biology Search Committee or Conservation Ecology Search Committee, Department of Biology, San Diego State University, San Diego, CA 92182-4614.** *SDSU is an Affirmative Action/Equal Opportunity/Title IX employer and does not discriminate against persons on the basis of race, religion, national origin, sexual orientation, gender, marital status, age, or disability.*

Texas A&M University's Institute of Biosciences and Technology (IBT) offers prospective graduate students and postdoctoral fellows in the biosciences an opportunity to work in laboratories with internationally recognized scientists in state-of-the-art facilities.

Doctoral and postdoctoral studies are conducted at IBT, located in the Texas Medical Center in Houston, in conjunction either with academic departments at Texas A&M University in College Station or with the University of Texas-Houston's Graduate School of Biomedical Sciences in Houston. Special programs are also available in which graduate students can do thesis research at IBT while enrolled in programs of other academic institutions.

After admission to Texas A&M, graduate students can rotate through the different research labs at IBT either the summer before or after the first year of their graduate training in College Station. After admission to UT-Houston's Graduate School, students can rotate through the IBT labs during their first year of graduate study.

Labs at IBT include the following:

**\*Center for Animal Biotechnology:** Director, Fuller W. Bazer, Ph.D., pregnancy and uterine biology; Stanley R. Glasser, Ph.D., embryo/uterine inter-relationships

**\*Center for Cancer Biology and Nutrition:** Director, Wallace L. McKeehan, Ph.D., signal transduction; James F. Martin, M.D., Ph.D., craniofacial genetics; Mikio Kan, Ph.D., growth factors and extracellular matrix

**\*Center for Extracellular Matrix Biology:** Director, Magnus Hook, Ph.D., molecular interactions in the ECM; Ramiro Ramirez-Solis, Ph.D., mouse genetics; Joe Patti, Ph.D., microbial pathogenesis; David J. McQuillan, Ph.D., extracellular matrix glycoproteins

**\*W.M. Keck Center for Genome Informatics:** Director, Leland Ellis, Ph.D., informatics and telecommunications

**\*Center for Genome Research:** Director, Robert D. Wells, Ph.D., DNA structure and human diseases; Richard R. Sinden, Ph.D., DNA structures and mutagenesis; Paul Gershon, Ph.D., post-transcriptional modification of mRNA; Vladimir N. Potaman, Ph.D., triplex DNA

**\*Center for Macromolecular Design:** Frederick S. Gimble, Ph.D., protein-nucleic acid interactions

IBT's location in the Texas Medical Center gives trainees easy access to other nearby institutions, including Baylor College of Medicine, the University of Texas-Houston Health Science Center, the University of Texas M.D. Anderson Cancer Center, Rice University, and the University of Houston. These institutions offer additional seminars and collaborative research opportunities.

For more information, potential applicants are encouraged to write to the address listed below or to contact IBT at the telephone or fax number given below:

**Training Programs, Institute of Biosciences and Technology, Texas A&M University, 2121 West Holcombe Boulevard, Houston, Texas 77030-3303; Telephone: 713/677-7552; Facsimile: 713/677-7576; Internet: [mhook@ibt.tamu.edu](mailto:mhook@ibt.tamu.edu)**

## CARNEGIE MUSEUM OF NATURAL HISTORY

Pittsburgh, Pennsylvania

### DIRECTOR

Reporting to the President and the CEO of Carnegie Institute and working closely with the Board of Carnegie Museum of Natural History (CMNH), the Director will oversee the staff of CMNH. He/She will provide leadership and direction in developing strategy, implementing programs and ensuring that the financial operations of CMNH are sound. He/She will be the chief spokesperson for CMNH and will communicate and articulate its mission, vision, and goals to its regional, national, and international audiences. It will be particularly important for the Director to increase revenue by obtaining grants and overseeing the development of programs to increase visitor attendance, product sales and fundraising. The Director must ensure that the Museum maintains its primary position as a scientific research institution.

Individuals must have an advanced degree that will complement the mission of the Museum and ten years experience in a senior level management position with a proven track record as a leader and manager capable of increasing revenue while remaining focused on the scientific mission of the institution.

Please send nominations and applications by Friday, December 6, 1996:

Carnegie Museum of Natural History  
c/o Heidrick & Struggles, Inc.  
1301 K Street, N.W., Suite 500 East  
Washington, D.C. 20005  
Fax: 202/289-4451

~ The Carnegie Museum of Natural History is an Equal Opportunity Employer ~

## RESEARCH SCIENTIST

Amgen, the world's largest biotechnology company, is currently seeking a Research Scientist for its **Boulder, Colorado** facility.

Working in a multi-disciplinary research team you will develop and implement state-of-the-art high throughput and secondary screens to identify and characterize small molecule effectors of molecular and cellular targets. You will analyze HTS and follow-up data and perform preliminary SAR to advance active compounds. Requirements for this position include a Ph.D. in Biochemistry, Cell Biology, or a related field and typically 3-5 years of industrial HTS experience. The successful candidate will have knowledge of cell biology and of molecular mechanisms of drug action. The ability to work productively in a goal-oriented team is 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. BPSC-9852, P.O. Box 19409, Boulder, CO 80308-2409. 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.**



## POSITIONS OPEN

### ECOLOGIST

The Department of Biological Sciences, Union College, is seeking to fill one, and possibly two, tenure-track positions at the **ASSISTANT PROFESSOR** level with an ecologist(s) who has a strong commitment to both teaching and research. One of the positions requires that the applicant has the background and enthusiasm to involve students in field experience. Development of an active research program in which undergraduates can participate is expected. Candidates working in one of the following areas are particularly encouraged to apply: 1) population or community ecology of terrestrial, freshwater, or marine systems; 2) behavioral ecology; or 3) chemical ecology. Union is a small selective liberal arts institution with a strong tradition in the sciences. There is easy access to the Mohawk and Hudson Rivers, the Adirondack mountains, and a variety of other terrestrial and aquatic field sites. Applicants should provide a curriculum vitae, cover letter describing teaching philosophy and experience, plus current and proposed research, and should arrange to have three letters of recommendation sent by January 15, 1997 to: **Dr. Barbara Boyer, Department of Biological Sciences, Union College, Schenectady, NY 12308.** *Union College is an Equal Opportunity/Affirmative Action Employer.*

### TWO BIOLOGY POSITIONS Geneticist and Cell Physiologist

Texas A&M University-Kingsville (TAMUK) is opening a search for two tenure-track positions at the **ASSISTANT PROFESSOR** level. The two positions are 1) geneticist with preference given to those involved in DNA sequence work and 2) cell biologist. Successful applicants for either position will have postdoctoral experience in biomedical research, the ability to write competitive research proposals, demonstrated excellence in teaching, and a publication record commensurate with experience. Both positions will have a half-time teaching and a half-time research component devoted to biomedical research. Laboratory space and start-up funds are available. TAMUK is a Hispanic-serving institution located in South Texas. Candidates for either position must submit: 1) a letter of application that describes teaching and research interests; 2) unofficial transcripts; 3) a curriculum vitae; and 4) three letters of reference. Incomplete applications will not be considered. The deadline to submit an application is January 15, 1997. Inquiries should be addressed to: **Biology Department, Box 158, TAMUK, Kingsville, TX 78363.** Inquiries can be made by **Telephone: 512-593-3803.** *Texas A&M University-Kingsville is an Affirmative Action/Equal Opportunity Employer.*

### GENERAL AND MEDICAL MICROBIOLOGY/ VIROLOGY AND IMMUNOLOGY The University of Texas-Pan American

The Department of Biology invites applications for an entry-level, tenure-track **ASSISTANT PROFESSOR** position beginning September 1, 1997. The successful applicant must have a Ph.D. and be able to assist with existing general biology courses and general and medical microbiology courses. He or she will be expected to develop courses in virology and immunology and a research program in microbiology. Strong commitments to teaching and research involving undergraduate and graduate students are expected. Postdoctoral research experience is desirable. Applicants should submit curriculum vitae, statement of teaching and research goals, and representative publications, and should arrange for three letters of reference to be sent to: **Dr. Mohammed Farooqui, Search Committee Chair, Department of Biology, The University of Texas-Pan American, 1201 West University Drive, Edinburg, TX 78539-2999.** **Telephone: 210-381-3543; FAX: 210-381-3657; Email: Farooqui@panam.edu.** Application deadline: January 15, 1997. *The University of Texas-Pan American is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. (F96/97-20)*

### MICROBIOLOGIST

The Department of Biology, Sonoma State University, invites applications from broadly trained microbiologists with expertise in molecular techniques for a **TENURE-TRACK** assistant or associate professor position beginning fall 1997. See full announcement on our web page ([www.sonoma.edu/biology](http://www.sonoma.edu/biology)) for application requirements or request it from: **Dr. Colin O. Hermans, Chair, FAX: 707-664-3012; Email: colin.hermans@sonoma.edu.** Completed applications must be postmarked by 6 January 1997. *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### TWO BIOLOGY POSITIONS

**MOLECULAR/CELL BIOLOGIST:** Tenure-track, Assistant Professor, Ph.D. required. Will teach molecular and cell biology courses as well as introductory courses for majors and non-majors. Commitment to teaching in the liberal arts tradition and development of a collaborative research program involving undergraduates are vital.

**DIRECTOR,** Pre-professional and Allied Health Programs: Tenure-track, Assistant Professor, Ph.D. required. Individual will administer the Pre-professional (pre-med, pre-dent, and pre-vet) and the Allied Health (pre-PT/OT/MT) programs. Responsibilities will include recruiting and advising students in these programs as well as teaching departmental and university-wide courses. Applications from any biology specialization are invited.

Both positions begin August 1997. Interested individuals should submit curriculum vitae, three letters of reference, undergraduate and graduate transcripts, and statement of teaching and research interests by January 17, 1997 to: **Dr. Terry Matthews, Chair, Department of Biology, Millikin University, Decatur, IL 62522.** *Millikin University is an Equal Opportunity Employer. Applications from women and members of minorities are encouraged.*

### ASSISTANT PROFESSOR

The Department of Microbiology and Immunology at The Uniformed Services University of the Health Sciences invites applications from highly qualified individuals for a full-time **TENURE-TRACK** position at the Assistant Professor level. The appointment will become effective in late summer 1997. Preference will be given to applicants with research interests in bacterial physiology and genetics with emphasis in the areas of signal transduction, protein secretion, cell division, or antibiotic resistance. Candidates must possess a Ph.D. degree or its equivalent, postdoctoral experience, and a demonstrated record of innovative research productivity. Applicants will be evaluated on their ability to develop a vigorous and independent research program. However, it is expected that the research program of the successful candidate will also complement the research programs of other members of the department, whose broad interests include bacterial pathogenesis and host-parasite interactions. A strong commitment to the teaching mission of the department is essential; these responsibilities include teaching both graduate students and medical students. Interested individuals are requested to submit a letter of application; a curriculum vitae; a statement of research interests and goals; and the names, telephone numbers, and addresses of three references. All materials should be sent to: **Paul D. Rick, Ph.D., Chair, Search Committee, Department of Microbiology and Immunology, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** The deadline for applications is February 1, 1997. *The Uniformed Services University of the Health Sciences is an Equal Opportunity/Affirmative Action Employer.*

### GENETICIST

St. Olaf College invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning September 1, 1997. Teaching responsibilities will include courses in genetics and introductory biology plus other courses as needed by the department, which may include evolution or environmental studies. The successful applicant will be expected to develop an active research program that involves undergraduate students. Qualifications for the position include a Ph.D., postdoctoral or comparable research experience, and demonstrated experience and ability in teaching. Send curriculum vitae, undergraduate and graduate transcripts, statements of teaching and research interests, and three letters of recommendation to: **Dr. Kathleen Shea, Chair, Department of Biology, St. Olaf College, Northfield, MN 55057.** Screening of applications begins January 6, 1997; position remains open until filled. St. Olaf College is a co-educational liberal arts college of the church in the Lutheran tradition (ELCA). *St. Olaf is an Equal Opportunity Employer and seeks diversity in its faculty, staff and student populations.*

## POSITIONS OPEN

### CELLULAR/MOLECULAR BIOLOGIST

The Department of Biology and Wildlife and Institute of Arctic Biology at the University of Alaska Fairbanks seek qualified applicants for the tenure-track position of **ASSISTANT PROFESSOR** of Cellular/Molecular Biology. The appointee is expected to establish a productive research program at the cellular or molecular level that ideally will integrate with existing faculty interests including high latitude physiology, neurobiology, endocrinology, or chronobiology. The successful applicant will be expected to teach two courses per year including cell biology and an additional course such as developmental biology or molecular biology, and to supervise graduate students. An earned Ph.D. in biology or related field is mandatory; postdoctoral and teaching experience are preferred.

Initial support for graduate student teaching assistants, laboratory space, and start-up funds are included in this appointment, which is expected to begin in fall of 1997.

Send applications including statements of research interest and teaching philosophy, a curriculum vitae, and three letters of reference by January 15, 1997 to: **Chair, Cellular/Molecular Search, Department of Biology and Wildlife and Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, AK 99775.** **Telephone: 907-474-7656; FAX: 907-474-6967; or Internet: <http://zborba.uafadm.alaska.edu/iab/index.html>.** *Qualified women and minorities are encouraged to apply.*

### ASSISTANT/ASSOCIATE PROFESSOR BIOPHYSICS

The Department of Biochemistry and Biophysics invites applications for a full-time, **TENURE-TRACK** (nine-month) faculty appointment. We are seeking outstanding candidates with demonstrated research accomplishments in molecular biophysics, particularly using x-ray diffraction or spectroscopic methods to study macromolecular structure and function, and who will pursue excellence in teaching biophysics and biochemistry. The appointee is expected to develop an active extramurally supported research program that complements, but does not duplicate, the present research in the department. To apply, forward a letter of interest, curriculum vitae, a concise statement of research plans, and copies of two representative publications, and have three reference letters sent to: **P. Shing Ho, Department of Biochemistry and Biophysics, ALSB 2011, Oregon State University, Corvallis, OR 97331-7305.** Completed applications received by December 31, 1996 will be given full consideration. **<http://www.orst.edu/dept/biochem/>.** *Oregon State University is an Affirmative Action/Equal Opportunity Employer, and has a policy of being responsive to dual-career couples.*

### DIRECTOR Environment Protection Unit

Direct research and public policy efforts through environmental protection, land acquisition, conservation stewardship, and research activities. Requires Ph.D. in ecology or related field; experience in aquatic ecology/hydrology environmental policy; hands-on experience in conservation of ecosystems and natural resources; demonstrated leadership, supervisory, and team-building skills; excellent written and oral communication skills; demonstrated experience in writing and administering grants and contracts; and experience in developing and managing budgets. To apply, send application letter highlighting relevant experience and interest, curriculum vitae, writing sample, and three references to: **Human Resources Manager, The Conservancy, 1450 Merrihue Drive, Naples, FL 34102.** Salary: commensurate with qualifications and experience. *Equal Opportunity and drug-free Employer.*

### ASSISTANT PROFESSOR IN BIOLOGY

**TENURE-TRACK** full-time position beginning September 1997. Teach upper-division molecular biology and co-teach first-year cellular and molecular biology. Opportunity to teach additional upper-division or interdisciplinary course. Develop research program for undergraduate participation. Must have relevant Ph.D. For full consideration, applications should be received by December 9, 1996. Send letter of application, professional curriculum vitae, statement of teaching philosophy and research interests, and names and addresses of three professional references to: **Dr. Angelia G. Alexander, Department of Biology, Pacific Lutheran University, Tacoma, WA 98447-0003.** **Email: alexanag@plu.edu.** *Pacific Lutheran University is a progressively church-related university and an Affirmative Action/Equal Opportunity Employer.*

## DIRECTOR of the PRINCETON MATERIALS INSTITUTE

Princeton University is seeking applicants for the position of Director of the Princeton Materials Institute. The position is at the senior, tenured faculty level. The Institute was established in 1990 to promote multi-disciplinary collaborations in materials research and education. Princeton Materials Institute now has more than 55 associated faculty from either science and engineering departments. It has several multi-million dollar awards from the NSF and DOD. In FY 1995/96, research expenditures totaled approximately \$6 million dollars.

Please send a resume and statement of research interests by *December 31, 1996* to **Associate Provost Allen J. Sinisgalli, Princeton University, P.O. Box 36, Princeton, New Jersey 08544-0036; Fax# 609-258-1159, e-mail: allens@princeton.edu.** Also include a list of three names of individuals (with telephone numbers and addresses) who would be willing to provide an assessment of your qualifications for the position.



### Princeton University

Princeton University is an Affirmative Action Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

## TENURE-TRACK POSITION

The Liver Diseases Section of the National Institute of Diabetes and Digestive and Kidney Diseases invites applications for a tenure-track position in the intramural program of NIH. The Section is located in the Warren Magnuson Clinical Center (Building 10) with newly renovated laboratory space. The mission of the Section is to develop integrated, multidisciplinary approaches to the study of liver diseases, and to bridge clinical medicine and basic science with translation of fundamental knowledge to prevention, diagnosis and treatment of liver diseases. In addition to providing clinical services on liver diseases in the Clinical Center, the Section also carries on active basic and clinical research programs. Ongoing basic research activities focus on molecular pathogenesis of hepatitis B and C virus infections as well as on animal models of liver diseases. Active clinical investigations into the evaluation and treatment of various forms of liver diseases are also an integral part of the research activities of the Section. Applicants should have a M.D. or Ph.D. degree, a special interest in liver diseases, a strong record of scientific accomplishments, a commitment to the aims and overall direction of the Section, and the ability to establish an independent research program. Candidates with strong background in immunology, molecular and cell biology, or gene therapy are especially encouraged to apply. Salary, resources and personnel support will be commensurate with education and experience. Applicants should send a curriculum vitae and three letters of recommendation to:

**DIVISION OF INTRAMURAL RESEARCH, NIDDK  
BUILDING 10, ROOM 9B16  
10 CENTER DRIVE MSC 1800  
BETHESDA, MD 20892-1800**



Applications must be received by **December 16, 1996.**  
NIH is an Equal Opportunity Employer

## Campbell McLaurin Chair for Hearing Deficiencies

The University of Calgary Faculty of Medicine and the Campbell McLaurin Foundation for Hearing Deficiencies invite applications and nominations for a full-time academic position at the Professor level as the Campbell McLaurin Chair for Hearing Deficiencies.

The successful candidate will be a senior established investigator in hearing deficiencies with an international reputation in clinical or basic research. If this research is patient-based and involves the provision of patient care, the selected individual must be eligible for licensure in the Province of Alberta. The incumbent will provide leadership in the further development of a world-class research program in hearing deficiencies in a collaborative research environment, as well as help attract outstanding students, research associates and faculty.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary is committed to Employment Equity.

Please submit a curriculum vitae, a statement of research interests and goals, and the names of three referees by January 15, 1997, to:

**Dr. E.R. Smith, Chair  
Selection Committee  
Faculty of Medicine**

The University of Calgary, 3330 Hospital Drive N.W.  
Calgary, Alberta, Canada T2N 4N1

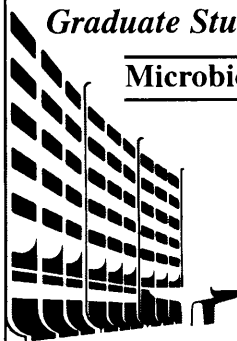


[www.ucalgary.ca](http://www.ucalgary.ca)

## Penn State College of Medicine

### Graduate Studies and Postdoctoral Training

#### Microbiology and Immunology



Areas of research interest include: Viral gene regulation and virion assembly; Antiviral design; Viral protein transport and processing; Antigen recognition; Viral pathogenesis, latency, oncogenesis, and vaccines; Transmembrane and intracellular signal transduction; Eukaryotic cellular differentiation and growth control; Molecular and cellular immunology; Human genome mapping

#### College of Medicine Programs

Anatomy  
Biochemistry and Molecular Biology  
Cell and Molecular Biology  
Microbiology and Immunology

Neuroscience  
Pharmacology  
MD/PhD Program  
PhD/MBA Program

#### Inter-College Programs

Bioengineering  
Genetics  
Nutrition

Physiology  
Integrative Biosciences

**For more detailed information and to apply  
visit our WWW site at <http://www.hmc.psu.edu> or contact**

Assistant Dean for Graduate Education, Penn State College of Medicine,  
Hershey, PA 17033-0850, Telephone: (717) 531-8892  
Fax: (717) 531-4582; E-mail: [grad-hmc@psu.edu](mailto:grad-hmc@psu.edu)

**PENNSTATE**



College of Medicine  
University Hospital - Children's Hospital  
The Milton S. Hershey Medical Center

Penn State is an affirmative action, equal opportunity university.

## POSITIONS OPEN

### METABOLISM OF XENOBIOTICS

Battelle, Pacific Northwest Laboratory (PNNL)

The Molecular Biosciences Department seeks to hire a **SENIOR-LEVEL** investigator with interests in an established program in the enzymology and molecular biology of xenobiotic metabolism. The incumbent would be a key collaborator in a program designed to pursue low dose effects of chemical and physical agents on human health. Opportunities are available for collaboration in developing physiologically based pharmacokinetic models for estimating effective doses of a chemical or its metabolite in target tissues of various species and for collaborations in addressing structure function questions for proteins of interest. Of specific interest within the laboratory are phase 2 enzymes involved in activation/deactivation of chemicals, especially those involved in glutathione conjugation and processing of conjugates. However, an understanding of and an ability to compare various P450 isoforms and their catalytic properties between species is also important.

Applicants should submit a curriculum vitae; two to three examples of recent publications; a summary of current research interests and future directions; and a list of five potential references with their addresses, telephone, and fax numbers. Questions should be addressed to: **Dr. Richard J. Bull, Molecular Biosciences Department, Email: rj\_bull@pnl.gov.**

To apply, please reference ad number 10-2082-050-DAF and send a scannable résumé to: **Battelle, PNNL, P.O. Box 999, M/S: K1-24, Richland, WA 99352.** Or Email: **employ@pnl.gov** in Ascii, Word or WP. Initial review of applications will begin on December 15, 1996 and will continue until a suitable candidate is selected.

PNNL is an Equal Opportunity/Affirmative Action Employer and supports diversity in the workplace. Women, minorities, Vietnam-era and disabled veterans, and disabled persons are strongly encouraged to apply.

### KENYON COLLEGE

#### Molecular Microbiologist and Neurobiologist

Kenyon College seeks a Molecular Microbiologist who holds a Ph.D. for a two-year visiting position and a Neurobiologist (with Ph.D.) for a one-year visiting position beginning in August 1997.

The successful **MOLECULAR MICROBIOLOGIST** candidate will be expected to teach an upper-level course in molecular biology in year one, an upper-level microbiology course in year two, and introductory biology courses in both years, and may supervise undergraduate research projects. Send curriculum vitae, statement of teaching and research interests, graduate and undergraduate transcripts, and three letters of reference to: **Molecular Microbiology Search Committee, Department of Biology, Kenyon College, Gambier, OH 43022.** Review of applications will begin January 15, 1997, and will continue until the position is filled.

The successful **NEUROBIOLOGIST** candidate will teach upper-level courses in neurobiology and introductory biology courses, and will have involvement in Kenyon's neuroscience program. Strong preference will be given to candidates who can also teach developmental biology. Send curriculum vitae, statement of teaching and research interests, graduate and undergraduate transcripts, and three letters of reference to: **Neurobiology Search Committee, Department of Biology, Kenyon College, Gambier, OH 43022.** Review of applications will begin January 15, 1997, and will continue until the position is filled.

An Equal Opportunity Employer. Kenyon encourages the applications of women and minority candidates.

### STAFF ASSOCIATE COLUMBIA UNIVERSITY

The Gertrude H. Sergievsky Center currently has a full-time position available for a **STAFF ASSOCIATE** to create and maintain database management systems for epidemiological research on Alzheimer's disease. Responsibilities include database programming, supervision of data entry staff, developing data retrieval specifications, statistical analysis, and liaison with project clinical and research staff. Knowledge in data management required with experience in SIR, SPSS, SAS, or Access preferred. Good writing and verbal skills essential. Background in biology, psychology, statistics, and/or health sciences research preferred. Salary commensurate with experience.

Qualified applicants send résumé with salary history to: **Howard Andrews, Ph.D., Columbia University, 722 West 168th Street, Box 47, New York, NY 10032.**

We take Affirmative Action toward Equal Opportunity.

## POSITIONS OPEN



### MICROBIOLOGY POSITION

IntraBiotics Pharmaceuticals, Inc. is a young biopharmaceutical company currently developing novel antimicrobial peptides for treatment of unmet medical needs. The Microbiology group has an opening for a **SCIEN-TIST** (Ph.D. with at least two years of postgraduate experience in microbiology or related fields) to evaluate novel therapeutic agents for treatment of infectious diseases. Background in microbial pathogenicity, antimicrobial agents, and animal models strongly desired. The company offers competitive salary, benefits, and significant equity participation. Please send résumés to: **Human Resources-Micro, IntraBiotics Pharmaceuticals, Inc., 816 Kifer Road, Sunnyvale, CA 94086.**

### PLANT SYSTEMATIST IDAHO STATE UNIVERSITY

The Department of Biological Sciences anticipates a 10-month tenure-track position at the **ASSISTANT PROFESSOR** level (contingent upon funding) for August 1997. Candidates must hold a doctorate (postdoctoral experience preferred) and have ability to supervise students from undergraduate to doctoral levels. The successful candidate will be expected to develop a research program that complements existing research strengths in botany and ecology. Teaching responsibilities include participation in introductory courses, systematic botany, agrostology, and an advanced course in the candidate's area of specialization. The successful candidate will also serve as part-time (10%) Curator of the R. J. Davis Herbarium for the Idaho Museum of Natural History. Position will remain open until filled. Please send a letter of application, curriculum vitae, and statements of teaching philosophy and research goals, and have three letters of recommendation sent by December 30, 1996, to: **Search Committee Chair, Department of Biological Sciences, Box 8007, Idaho State University, Pocatello, ID 83209-8007.** Information about the department, its programs and facilities can be found at <http://www.isu.edu/departments/bios>. Idaho State University is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT/ASSOCIATE PROFESSOR

Microbiology/Immunology, LSU Medical Center. The Department of Microbiology and Immunology, Louisiana State University Medical Center, invites applications for a **TENURE-TRACK** position at the Assistant or Associate Professor level. Applicants for the Associate Professorship must have a record of national research funding. The successful candidate must establish a strong, independent research program that focuses on prokaryotic or eukaryotic gene regulation or the cellular or molecular aspects of bacterial, viral, or parasitic pathogenesis; interactions of pathogens with the immune system; or oncogenes/tumor suppressor genes. Responsibilities include teaching medical and graduate students. Generous start-up funds, research incentive plan, and excellent facilities are offered. Applicants should submit a curriculum vitae, description of funded and future research, and three letters of reference to: **Dr. Dennis J. O'Callaghan, Professor and Head, Department of Microbiology and Immunology, LSUMC, 1501 Kings Highway, Shreveport, LA 71130.** An Affirmative Action Employer.

### MOLECULAR BIOLOGIST (INSECTS)

USDA, Agricultural Research Service (ARS), announces a position for a Research Molecular Biologist (Insects), GS-14/15, for the Red River Valley Agricultural Research Center at Fargo, North Dakota. The successful applicant will lead a research unit in the development of biological and biochemical approaches for suppressing pest insect populations. Incumbent will utilize molecular biology techniques for genome characterization, DNA sequencing, hybrid gene construction, and the development of gene transfer technology. Applicants must meet minimum education requirement, plus at least one year of research experience at the postdoctoral level equivalent to the next lower grade. Salary (\$61,348 to \$93,811) is commensurate with qualifications. For vacancy announcement number ARS-D7W-014 and application forms, contact: **Ms. Melanie Nyquist, Telephone: 701-239-1203** and for information on research, contact: **Dr. Don Zimmerman, Telephone: 701-239-1370.** U.S. citizenship is required. Application must be postmarked on or before January 7, 1997. ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

## POSITIONS OPEN

Idaho State University, Department of Biological Sciences, anticipates two **TENURE-TRACK** positions (contingent upon funding) for August 1997. Successful candidates must hold a doctorate (postdoctoral experience preferred) and will train students from undergraduate to doctoral levels. Molecular Geneticist: Will be expected to develop a research program with emphasis in gene regulation that complements existing research strengths in molecular biology. Teaching responsibilities include participation in introductory courses, undergraduate genetics, cell biology, and an advanced course in the candidate's area of specialization. Plant Physiologist: Will be expected to develop a research program that complements existing research strengths in botany, ecology, or molecular biology. Teaching responsibilities include participation in introductory courses, whole plant physiology, cell biology, and an advanced course in the candidate's area of specialization. Both positions will remain open until filled. Please send a letter of application, curriculum vitae, and statements of teaching philosophy and research goals, and have three letters of recommendation sent by December 30, 1996 to: **Search Committee Chair, Department of Biological Sciences, Box 8007, Idaho State University, Pocatello, ID 83209-8007.** Information about the department, its programs, and new facilities available to enhance research (Molecular Research Core Facility, Plant Sciences Research Building) can be found at <http://www.isu.edu/departments/bios>. Idaho State University is an Equal Opportunity/Affirmative Action Employer.

### DIRECTOR, GENE THERAPY

Tulane University Medical Center in New Orleans, Louisiana, invites nominations and applications for a position of **DIRECTOR** for a gene therapy and human genetics center. Qualified candidates must be physician-scientists with a proven record of extramural funding. They should have administrative and leadership experience for coordinating basic and clinical research. Strong emphasis will be placed on the candidate's ability to marshal the resources of the Medical Center, which includes a School of Medicine, a School of Public Health and Tropical Medicine, and a Primate Center. Tulane's institutional commitment and currently active research projects in gene therapy offer an excellent opportunity for establishing a strong integrated program that can attract extramural funding and achieve national prominence. The successful candidate will occupy an endowed chair.

Applicants should send a complete curriculum vitae and the names of at least three references to: **Dr. Peter J. Gerone, Chairman, GT Search Committee, Office of the Chancellor, SL 76, Tulane University Medical Center, 1430 Tulane Avenue, New Orleans, LA 70112.** Tulane University is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and members of minority groups.

### ENVIRONMENTAL SCIENTIST

Austin College seeks an environmental chemist or environmental toxicologist for a tenure-track **ASSISTANT PROFESSOR** position beginning August 1997. Ph.D. required. Successful applicant will have a strong background in both chemistry and biology, broad interests in interdisciplinary environmental issues, and a commitment to undergraduate education. Teaching will be primarily within the environmental studies curriculum with some responsibilities in college-wide programs. Austin College is a selective liberal arts institution. Send letter of application, résumé, graduate transcripts, three letters of reference, and one-page descriptions of teaching philosophy and research interests to: **David Jordan, Vice President for Academic Affairs, Austin College, Sherman, TX 75090-4440.** Review of applications begins January 15, 1997. An Affirmative Action/Equal Opportunity Employer.

### UNIVERSITY OF COLORADO AT COLORADO SPRINGS

**TENURE-TRACK** position in the Biology Department. Teaching and research in molecular biology, biotechnology, biochemistry, microbiology. Nine-month appointment, beginning fall 1997. Ph.D. and postdoctoral experience required. Teaching experience and established research program preferred. Assistant or associate professor. Teach core courses in the Biology curriculum, and lead an active research program. Send letter of application, statement of career goals, résumé, and three letters of reference to: **Biology Search Committee, CU-Colorado Springs, Colorado Springs, CO 80933-7150.** Applications will be reviewed beginning December 15, 1996.

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



## RESEARCH PROJECT DIRECTORS

### Institute for Human Gene Therapy

#### UNIVERSITY OF PENNSYLVANIA

Faculty positions in the research track to participate in the development of research programs in defined areas relevant to gene therapy. Participate in basic research in Dr. J. Wilson's laboratory and have primary responsibility for coordinating the translation of basic discovery through clinical trials, including preclinical studies, vector manufacturing, pharmacology/toxicology, phase I clinical trials, and regulatory affairs. Individual Research Project Directors needed:

- **Lung-directed gene therapy.** Coordinate the efforts in gene therapy for cystic fibrosis. A knowledge of lung biology and physiology is required; research experience in cystic fibrosis is preferred.
- **Muscle-directed gene therapy.** Efforts currently focus on adenovirus and adeno-associated virus as vehicles for gene therapy to muscle. Strategies for clinical applications are being developed. Experience with animal models and background in muscle biology required.
- **Liver-directed gene therapy.** *In vivo* and *ex vivo* approaches are being developed for treatment of liver metabolic diseases.
- **Immunology.** Many projects are designed to exploit or prevent immune responses of the host to the vector or vector engineered cells. The specific nature of these responses is studied in both preclinical and clinical models.

D.V.M., M.D., and/or Ph.D. with at least one postdoctoral fellowship. Experience in molecular biology and animal models is required; background in toxicology is desirable. Appointment at the rank of Research Associate, which is a non-tenure-track faculty position.

Send CV and 3 references to: **James M. Wilson, M.D., Ph.D., Director, Institute for Human Gene Therapy, 204 Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104-4268.** AA/EOE. We encourage minority and women candidates.

*DAKO is an international, biomedical products company that manufactures and markets immunological reagents and diagnostic kits for use in clinical and research laboratories.*

## Biochemical Production Manager

This position is responsible for reagent formulations used in immunohistochemistry and in situ hybridization kit systems. Formulations include bulk dilution of immunochemicals and enzyme conjugates and compounding of chemical substrate solutions. Responsible for establishing hybridoma cell lines, small scale monoclonal antibody production and downstream processing of tissue culture supernatants to final products. Related quality control by immunohistochemical and immunochemical methods. Development, implementation and maintenance of manufacturing and testing methods for new and existing products; involved in new product scale-up and process optimization. Supervisory responsibility of Biochemical Production and Cell Production/Immunoprocessing groups.

Good communication skills across functional areas; ability to operate within an active ECO and new product introduction environment. A background in immunocytochemistry and antibody production, or a related area, with 5-8 years manufacturing experience in a GMP or ISO 9000 regulated industry. B.S. degree required, M.S. degree preferred. Knowledge of microscopic anatomy a plus.

Human Resources Department

**DAKO CORPORATION**

6392 Via Real

Carpinteria, CA 93013

Fax: 805-684-5935



**DAKO**

## GLOBAL CAREER OPPORTUNITIES

### CAMBRIDGE CRYSTALLOGRAPHIC DATA CENTRE

#### DIRECTOR



The Cambridge Crystallographic Data Centre (CCDC) seeks a new Director on the retirement of Dr Olga Kennard, OBE FRS. The candidate should be a scientist of international standing in the field of chemistry, crystallography or information science, with administrative experience. The holder of the post will have qualities of leadership, vision and creative ideas for the continuing development of the Data Centre, and will be interested in maintaining close association with the Department of Chemistry. The Centre is an institution approved for post-graduate studies by the University of Cambridge. The Director will be expected to lead a team and engage in research of the highest calibre, for which there are excellent facilities. The CCDC is a financially independent non-profit making charitable institution. The salary is negotiable and will reflect the responsibilities of the post. Further details may be obtained from Dr O. Kennard at 12 Union Road, Cambridge CB2 1EZ. Applications should be sent to Prof. D.A. King FRS, Chairman of the Search Committee and Head, Department of Chemistry, Lensfield Road, Cambridge CB2 1EW, U.K., with names of three referees by 31 January 1997.

## MEETINGS



### FUNDAMENTAL ISSUES IN VACCINE IMMUNITY

A Meeting Sponsored by the Edward Jenner Institute for Vaccine Research to be held at Keble College, Oxford, UK from the 3rd - 6th April 1997.

The meeting will address problems of antigen presentation, tissue specific immunity, carbohydrate antigens, immaturity of the neonatal immune system, the nature of protective immune responses and microbial evasion strategies, as well as considering new methods for immunisation and the potential for elimination of diseases by vaccination. Speakers will include H. Bodmer, P. Borrow, P. Doherty, G. Dougan, S. Inglis, M. Liu, I. MacLennan, P. Matzinger, A. Lanzavecchia and D. Tough.

For further details please contact: Stuart Norridge/  
Suzanne Hazlehurst, Harvey Thomas Travel, 10 Parlant  
Road, Slough, SL3 8BB, United Kingdom.

THE EDWARD  
**JENNER INSTITUTE**  
FOR VACCINE RESEARCH

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Promoting  
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Vaccine Research

## POSITIONS OPEN

### LABORATORY RESEARCH SPECIALIST DEPARTMENT OF BIOLOGICAL SCIENCES MUSEUM OF NATURAL HISTORY The University of Alabama

The University of Alabama is seeking applicants to fill a full-time **RESEARCH ASSISTANT/LABORATORY MANAGER** position beginning March 1997. The successful candidate will be responsible for managing a molecular systematics laboratory (research and personnel) and inventory of frozen tissues. Ph.D. in biological sciences or related field preferred; M.S. in biology and three years of laboratory experience required. Applicants must have training in: systematic and molecular biology; methods for protein and DNA electrophoresis (including starch, acrylamide, and agarose gels); DNA amplification, sequencing, restriction analysis; safe use of hazardous chemicals; data base management, accounting, and personnel management; and must be readily certified in radiation safety. Applicants should arrange for submission of three letters of reference, curriculum vitae, social security number, and description of research experience and plans to: **Dr. Richard L. Mayden, Department of Biological Sciences, The University of Alabama, Box 870344, Tuscaloosa, AL 35487-0344.** Inquiries may be made by Email: [rmayden@ualvm.ua.edu](mailto:rmayden@ualvm.ua.edu). Closing date: 20 December 1996. *The University of Alabama is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH ASSOCIATE(S)

#### Research Institute Children's Hospital of Eastern Ontario

Two **RESEARCH ASSOCIATE** positions available immediately to investigate the role of adhesion molecules in B cell immunobiology and on HIV immunopathogenesis. The positions offer opportunities for research in an established well-equipped laboratory. Experience in molecular biology and immunology is necessary. Send curriculum vitae and the names of three references to either **Dr. F. Diaz-Mitoma** or **Dr. Ashok Kumar, Division of Virology, Department of Pediatrics, Research Institute Children's Hospital of Eastern Ontario, 401 Smyth Road, Ottawa, Ontario K1H 8L1 Canada.** Telephone: 613-738-3920, 613-737-2736; FAX: 613-738-4819; Email: [akumar@labsunl.med.uottawa.ca](mailto:akumar@labsunl.med.uottawa.ca) or [diaz@cheo.on.ca](mailto:diaz@cheo.on.ca).

**CHIEF SCIENTIST:** Northwest NeuroLogic, a biotechnology company located in Portland, Oregon, is seeking an energetic, hands-on Chief Scientist to manage drug discovery programs involving neurotransmitter transporters and G-protein linked receptors. Candidates should have Ph.D. and strong background in molecular biology and pharmacology. Ten years of experience is required; pharmaceutical or biotechnology industry background a plus. Qualified candidates should also have strong communication and presentation skills plus experience in strategic planning and new product development. Send curriculum vitae to: **Dr. Paul Woloshin, Chief Executive Officer, Northwest NeuroLogic, Inc., 2611 SW Third Avenue, Suite 200, Portland, OR 97201.**

**THREE POSTDOCTORAL** positions at Georgia Tech. Available in the areas of bioinformatics (with **Mark Borodovsky**), biophysical chemistry (with **Roger M. Wartell**), and environmental microbiology (with **Thomas DiChristina**). Applicants must have strong background in genome analysis, studies of nucleic acids in solution, or molecular approaches to environmental microbiology, respectively. Send curriculum vitae and names (Email addresses) of three references to: **School of Biology, Georgia Institute of Technology, Atlanta, GA 30332-0230.** FAX: 404-894-0519.

### POSTDOCTORAL POSITION UNIVERSITY OF PENNSYLVANIA

Immediate opportunity available for a highly motivated Ph.D. or M.D. with an interest in cell signaling and hematopoiesis to participate in a gene knockout project. Experience in molecular biology required; experience in animal work preferred. Send curriculum vitae and the names of three references to: **Dr. Charles S. Abrams, Division of Hematology-Oncology, 422 Curie Boulevard, Number 1005, Philadelphia, PA 19104.** *Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** to engineer enzymes involved in the degradation of pollutants available immediately in Quebec City/Montreal in a major collaboration to improve bioremediation strategies. Individuals with experience in protein purification, enzymology, and/or microbial genetics preferred. Send curriculum vitae and three references to: **Dr. Lindsay D. Eltis, Pavillon Marchand, Laval University, Ste-Foy, PQ, G1K 7P4 Canada.** FAX: 418-656-7176; Email: [leltis@rsvs.ulaval.ca](mailto:leltis@rsvs.ulaval.ca); <http://www.fsg.ulaval.ca/bcm/eltis.html>.

## POSITIONS OPEN

### PHYSICIAN OR SCIENTIST INTERESTED IN MARKETING

Position available for M.D. or Ph.D. with interest in marketing for Pittsburgh biomedical firm performing cellular-based evaluation of therapeutic response in cancer. Salary commensurate with qualifications. Curriculum vitae to: **PTI 3636 Boulevard of Allies, Pittsburgh, PA 15213.**

### POSTDOCTORAL POSITION

Available immediately to conduct research on the active sites of dehydrogenases using site-directed mutagenesis and affinity labeling. Recent Ph.D. in biochemistry and/or molecular biology required. Send curriculum vitae and three references to: **Dr. Roberta F. Colman, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** is available to study the mechanism of activation and regulation of protein kinase C and related proteins at the cellular and sub-cellular level (e.g., see *JBC*, 271:4627; 270:6639; 269:4866, 17160). A strong background in biochemistry and signal transduction with expertise in molecular biological techniques required. Applicant should have gained a Ph.D. within the last three years. Please send curriculum vitae and names of three references to: **C. D. Stubbs, Ph.D., Room 271, Department of Pathology and Cell Biology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107.** *Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** available to define the role of chimeric transcription factors in human leukemia. Applicants should have a Ph.D. or M.D. degree and extensive molecular biology or biochemical experience, with expertise in the study of signal transduction, cell cycle events, or protein-protein interactions. Send a description of your research interests and curriculum vitae to: **Dr. Stephen D. Nimer, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** *An Equal Opportunity Employer.*

Childrens Hospital Los Angeles—**RESEARCH SCHOLAR** position available immediately to study molecular mechanism of tumorigenesis, involving tumor suppressor genes and oncogene. Competitive salary depending on experience. Please send curriculum vitae with names and telephone numbers of three references to: **Yuen Kai Fung, Ph.D., Associate Professor, University of Southern California, Childrens Hospital Los Angeles, 4650 Sunset Boulevard, Mail Stop 94, Los Angeles, CA 90027.**

**POSTDOCTORAL POSITION** available to study molecular/cellular biology of long-term neuronal plasticity. Investigations focus on novel immediate early genes that target to synaptic structures and examine their function at cellular and system levels. Send curriculum vitae and references to: **Dr. Paul Worley, Department of Neuroscience, The Johns Hopkins School of Medicine, 905 Hunterian Building, 725 North Wolfe Street, Baltimore, MD 21205.** Email: [paul.worley@qmail.bs.jhu.edu](mailto:paul.worley@qmail.bs.jhu.edu).

**POSTDOCTORAL POSITION** in electron microscopy and image processing to study molecular structure and function of contractile filaments of muscle. Experience required in electron microscopy and/or computer image processing; cryo-EM an advantage. Available immediately for up to four years. Send curriculum vitae and names of three references to: **Dr. Roger Craig, Department of Cell Biology, University of Massachusetts Medical School, Worcester, MA 01655, U.S.A.** Email: [Roger.Craig@ummed.edu](mailto:Roger.Craig@ummed.edu); FAX: 508-856-6361.

**POSTDOCTORAL POSITION** available to study life history evolution and senescence in *Drosophila*, using quantitative genetics and comparative methods. Preference will be given to candidates who combine strong research skills in quantitative genetics, comparative methods, demography, statistics, or *Drosophila* biology with a keen interest in behavioral ecology, evolution, and population genetics. Start date September 1997 or earlier if desired. Send curriculum vitae, a brief statement of research interests, selected reprints, and names of three references by December 20, 1996 to: **Dr. Daniel Promislow, Department of Genetics, University of Georgia, Athens, GA 30602-7223.** Email: [promislow@bscr.uga.edu](mailto:promislow@bscr.uga.edu). *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### USDA Graduate National Needs Fellowships

The Department of Food Science and Technology at the University of Nebraska-Lincoln announces two USDA National Needs Graduate **FELLOWSHIPS** being offered in the area of food safety. Outstanding students wishing to study the genetics, biochemistry, or physiology of food-borne pathogens are encouraged to apply.

Fellowships for exceptional Ph.D. students are available beginning June 1997. *Applicants must be U.S. citizens and must possess a Master's degree in food science, microbiology, biochemistry, molecular biology, or a related discipline.* Fellowship stipends are \$17,000 per year. For an application package or more information, contact: **Dr. Andrew K. Benson, Department of Food Science and Technology, University of Nebraska-Lincoln, 358 Food Industry Complex, Lincoln, NE 68583-0919.** Telephone: 402-472-5637; FAX: 402-472-1693; Email: [abenson@foodsci.unl.edu](mailto:abenson@foodsci.unl.edu). *The University of Nebraska-Lincoln is an Affirmative Action/Equal Opportunity Institution.*

**POSTDOCTORAL RESEARCH ASSOCIATE** position available immediately in the Department of Biomedical and Therapeutic Sciences, University of Illinois College of Medicine at Peoria, to study/identify epilepsy gene(s) in Genetically Epilepsy-Prone Rats (GEPRs). This model has predictable seizures dependent on deficits in noradrenergic, serotonergic, and GABAergic systems. The successful candidate will work with faculty to construct a GEPR cDNA library and to isolate, clone, sequence, and manipulate genes that underlie the seizure predisposition that characterizes GEPRs. Required qualifications: Ph.D. in a biomedical sciences with specialization in molecular biology; experience in computer utilization of DNA/RNA/protein analysis software and use of gene bank data bases; experience with recombinant DNA techniques (isolation, cloning, PCR sequencing, and southern/northern hybridization) with mammalian genes; and record of publications in peer-reviewed scientific journals. Salary commensurate with experience. Send curriculum vitae and names of three references to: **John W. Dailey, Ph.D., Department of Biomedical and Therapeutic Sciences, University of Illinois College of Medicine, Box 1649, Peoria, IL 61656.** *An Equal Opportunity/Affirmative Action Employer. Applications from members of minority groups and women encouraged.*

### POSTDOCTORAL POSITION BIOMATERIALS

An NIH-NIDR training position is available in a research laboratory focused on biomaterials, biomimetics, and tissue engineering related to dental applications. *Only U.S. citizens and permanent residents are eligible.* Send résumé and statement of interest to: **Dr. William J. O'Brien, School of Dentistry, University of Michigan, Ann Arbor, MI 48109-1078.** FAX: 313-647-5293; Email: [wjbrien@umich.edu](mailto:wjbrien@umich.edu).

*Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to study the molecular biology of endothelial/vascular gene regulation. Strong background in cellular/molecular biology is required. *Must be U.S. citizen/resident.* Please submit curriculum vitae, including names and addresses of three references, to: **Dr. Douglas V. Falter, Cancer Center, Boston University Medical School, 80 East Concord Street K-701, Boston, MA 02118.** FAX: 617-638-4176. *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS:** Cell and Molecular Biology and Pharmacology. Postdoctoral research positions now open to study: 1) endocrine regulation and cell signaling control of liver P450 gene transcription, and 2) gene therapy applications in cancer pharmacology. Strong research experience in molecular biology, cell biology, or biochemical pharmacology is essential. Flexible start date. Send curriculum vitae, brief summary of research experience, copies of select publications, and names of three references to: **Dr. David J. Waxman, Professor of Cell and Molecular Biology, Department of Biology, Boston University, 5 Cunningham Street, Boston, MA 02215.** *Minority candidates encouraged to apply.*

**POSTDOCTORAL POSITION** available to study cellular and molecular mechanisms in immunotherapy of human breast cancer. Research focuses on therapeutic polysaccharides that stimulate remission and immunity against murine mammary carcinoma via leukocyte  $\alpha_M\beta_2$ -integrin CR3 (*J. Immunol.*, 98:50, 1996). Send curriculum vitae and names of three references to: **Dr. Gordon D. Ross, Division of Experimental Immunology and Immunopathology, University of Louisville, Louisville, KY 40292.** *An Equal Opportunity/Affirmative Action Employer.*

**DEPUTY DIRECTOR  
DIVISION OF ACQUIRED  
IMMUNODEFICIENCY SYNDROME**

The National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH), is recruiting for the Senior Executive Service position of Deputy Director, Division of Acquired Immunodeficiency Syndrome (DAIDS). Annual salary range between \$100,526 - \$122,688. (M.D.s may be eligible for up to \$20,000 Physician's Comparability Allowance.) This individual, in concert with the Director, DAIDS, provides scientific and administrative management to a staff of approximately 126 employees in three major scientific programs (basic sciences, therapeutics, and vaccine and prevention) and manages an annual budget of over \$400 million. Responsibilities include planning, conducting, coordinating, and evaluating a national and international research effort focused on HIV/AIDS. Applicants must hold either an M.D. or Ph.D. degree with research management experience in the biological, clinical and/or epidemiological aspects of infectious diseases. U.S. citizenship is required. Persons interested in this position may contact Dr. John Killen, Director, DAIDS at (301) 496-0545. For more information on the application process and position description, please contact Ms. Lynn Hellinger (see below). Applicants should submit either an Application for Federal Employment (SF-171), an Optional Application for Federal Employment (OF-612), a Curriculum Vitae, or resume by **December 31, 1996** to: **Ms. Lynn Hellinger, Director, Office of Human Resources Management, NIAID, Bldg 31/Room 7A20, 31 Center Drive MSC 2520, Bethesda, Maryland 20892-2520; (301) 496-9686.**

NIH is an Equal Opportunity Employer

**Clarion University of Pennsylvania  
Tenure Track Positions  
Animal Physiologist/ Aquatic Ecologist**

Two **tenure track** positions are available in the Department of Biology for a broadly-trained Animal Physiologist and an Aquatic Ecologist. Appointments will be at the Assistant Professor level. The Ph.D. is required by August 25, 1997 for the positions to be tenure track. Postdoctoral experience desirable. Candidates must have a commitment to excellence in teaching and the potential for developing an extramurally funded research program that includes supervision of M.S. students. Teaching duties for the Animal Physiologist include: animal physiology, biology of aging, general biology for majors and non-majors, and a course in the candidate's area of expertise. Experience in instructional technology is desirable as is an interest in a growing preprofessional program. Teaching duties for the Aquatic Ecologist include: participation in introductory biology and ecology courses and upper-level/graduate courses in biometry, applied ecology, and aquatic resources management. Research interest in northeastern stream and/or lake systems is desired. For full consideration, send letter of application, curriculum vitae, three letters of recommendation, unofficial transcripts, statement of teaching philosophy and research interests, and recent reprints by January 15, 1997 to: **Dr. Roger McPherson** (Animal Physiology Position) or **Dr. Charles Williams** (Aquatic Ecologist Position), **Department of Biology, Clarion University of Pennsylvania, Clarion, PA 16214-1232.** For more information: Animal Physiology Position: **814-226-2560** or email: **mcpherson@vaxa.clarion.edu.** Aquatic Ecology Position: **814-226-1936** or email: **cwilliams@vaxa.clarion.edu.** *Clarion University is building a diverse academic community and encourages people of color, women, Vietnam era veterans and persons with disabilities to apply. Affirmative Action/Equal Opportunity Employer.*



Pharmaceuticals

## Postdoctoral Position in Pharmacokinetics

### Our profile

The Drug Metabolism & Pharmacokinetics group at F. Hoffmann-La Roche Ltd in Basel, Switzerland, is actively involved in both drug discovery and development activities. Main tasks are to collaborate with R&D groups to optimize the selection of new drug candidates, make new methodologies available to discovery and development projects and provide support in the non-clinical and clinical development of new drugs.

### Your task

To study active transport processes involved in drug disposition and develop suitable in vitro models for studying affinity for and interspecies differences in specific carrier systems.

### Your profile

You have a Ph. D. in pharmacy, biochemistry or a related field. Experience in molecular biology would be an advantage. You have a strong background in pharmacokinetics, along with experience in developing in vitro models to study carrier systems and in mathematical modelling of biological systems. You have an excellent command of written and spoken English, and a working knowledge of a second language, preferably German or French, would be highly desirable.

### Contact Address

We welcome your application. Please send your application, including a current CV, to our Personnel Department, F. Hoffmann-La Roche Ltd, 4070 Basel, Switzerland, quoting reference As2179.



## POSITIONS OPEN

### POSTDOCTORAL POSITION DEPARTMENT OF OTOLARYNGOLOGY

Available to study neurotransmitter pathways underlying changes in the central auditory system in response to extreme sound exposure. Individuals with a Ph.D. and experience using neurophysiological and/or neuropharmacological techniques are especially encouraged to apply. This position is funded by Pfizer Pharmaceutical and offers a very competitive stipend (\$42,000 plus fringe benefits). Interested individuals should send curriculum vitae and the names and telephone numbers of three references to: **Dr. James A. Kaltenbach, Department of Otolaryngology, 5E-UHC, Wayne State University, Detroit, MI 48201.**

Two POSTDOCTORAL POSITIONS available in cellular and molecular immunology of autoimmunity in an NIH-funded pediatric arthritis center. Areas of investigation include: 1) MHC-immunoglobulin fusion proteins to study anergy induction in autoreactive T cell clones; and 2) development of gene transfer vectors for delivery of anti-inflammatory cytokines to the joint space in an experimental model of arthritis. Experience in molecular biology, biochemistry, or cellular immunology is desirable. Outstanding academic environment, competitive salary, and excellent benefits. Applicants must have Ph.D. or M.D. degree. Send curriculum vitae, summary of research experience, and names and telephone numbers of three references to: **Dr. Raphael Hirsch, Division of Rheumatology, Children's Hospital Medical Center, Pav. 2-129, 3333 Burnet Avenue, Cincinnati, OH 45229. FAX: 513-559-5568.**

POSTDOCTORAL POSITIONS, one available immediately and two anticipated openings, to participate in study of *Candida albicans* biology and pathogenesis. Research involves study of cell wall proteins, their expression and function using biochemical and molecular methods. Applicants should have a recent Ph.D. and relevant experience in protein purification and molecular techniques. Previous work with *Candida*, pathogenic fungi, or yeast an asset. Send résumé and names and contact information for three references to: **Dr. W. Lajean Chaffin, Department of Microbiology and Immunology, Texas Tech University Health Sciences Center, Lubbock, TX 79430. Email: micwlc@ttuhsc.edu. Texas Tech University Health Sciences Center is an Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study the mechanism of action of neuropeptides on lipid-derived second messenger production and their cross-talk with cAMP in iris smooth muscle and muscle cells. Candidate should have a Ph.D. in biochemistry or pharmacology. Experience in molecular characterization of signal transduction pathways and publications in this area are desirable. Send curriculum vitae, brief description of research interests, and addresses of three references to: **Professor Ata Abdel-Latif, Department of Biochemistry and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-2100.**

*The Medical College of Georgia is an Equal Opportunity/Affirmative Action Employer.*

A POSTDOCTORAL RESEARCH ASSOCIATE position is available December 1, 1996 to continue study of the immunologic effects of biliary obstruction in a rat model of bile duct ligation. A background in immunology is preferred, along with some experience in molecular biology. Work will be done as part of an established collaborative research program between the Department of Surgery and the Department of Immunology and Microbiology. Competitive salary and benefits will be provided through the Department of Surgery. Send curriculum vitae, summary of research experience, and a list of three references to: **Kim U. Kahng, M.D., Vice-Chairman, Department of Surgery, Allegheny University, MCP♦Hahnemann SOM, 3300 Henry Avenue, Philadelphia, PA 19129.**

#### PH.D. MOLECULAR BIOLOGIST

POSTDOCTORAL FELLOW position available in the Cardiology Division, Brigham and Women's Hospital/Harvard Medical School to study molecular interactions between fibrinogen and integrins and the role of fibrinogen in atherogenesis. Experience in molecular biology and use of transgenic mice required. Send curriculum vitae to: **Dr. Daniel Simon, Cardiology Division, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. FAX: 617-732-5132. An Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION National Institutes of Health National Center for Human Genome Research

One POSTDOCTORAL RESEARCH position is immediately available for study of the leukemia gene CBFB-MYH11. CBFB-MYH11 is generated by chromosome 16 inversion in acute myeloid leukemia subtype M4Eo. A novel gene targeting approach, knock-in, was used recently to create the CBFB-MYH11 fusion gene in the mouse genome. This mouse model showed that the fusion gene functions in a dominant negative fashion and blocks hematopoietic differentiation (Castilla et al., *Cell*, in press). Further genetic and molecular biologic studies of this mouse model will be conducted. Applicants must have a Ph.D. and/or M.D. and less than five years of postdoctoral experience. Please send a curriculum vitae, statement of research interests, and the names of three references by December 15, 1996 to: **Dr. Pu Paul Liu, Laboratory of Gene Transfer, NCHGR, Building 49, Room 3A18, 49 Convent Drive MSC 4442, Bethesda, MD 20892-4442. Telephone: 301-402-2529; FAX: 301-402-4929; Email: pliu@nchgr.nih.gov. The NIH is an Equal Opportunity Employer.**

Two POSTDOCTORAL POSITIONS are now available in my laboratory for those who are interested in the structure/function studies on electron-transfer and energy-coupling mechanisms.

Our research projects include bacterial and mitochondrial transmembrane complexes focusing on the NADH-quinone, succinate-quinone, and quinol-*cyt.* *o*-oxidoreductase systems. Electron paramagnetic resonance, optical spectroscopies, and potentiometry are used as basic techniques in my laboratory. We also conduct collaborative projects with other laboratories with expertise in molecular biology or other spectroscopic techniques such as electron nuclear double resonance (ENDOR). (Sample references: *Eur. J. Biochem.*, 230:538, 1995; *J. Biol. Chem.*, 270:18264, 1995; *FEBS Lett.*, 370:83, 1995; *Biochemistry*, 35:7834, 1996.)

One of the positions requires experience with EPR technique, and the other position requires experience with enzyme purification. Interested individuals should send curriculum vitae and addresses of three references to: **Professor Tomoko Ohnishi, Johnson Research Foundation, Department of Biochemistry and Biophysics, University of Pennsylvania, 37th Hamilton Walk, Philadelphia, PA 19104-6089. FAX: 215-573-3748; Email: ohnishi@mail.med.upenn.edu. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.**

#### POSTDOCTORAL RESEARCH ASSOCIATE

Position available immediately for candidate with experience in genetic linkage analysis and positional cloning, to study a novel human tumor suppressor gene locus. Ph.D. should be in molecular biology, genetics, or a related field. Must have firm commitment to academic research, excellent communication skills, and the ability to work well with a variety of people. Mail curriculum vitae (no telephone calls accepted) for review to: **Carolyn Cole, University of Wisconsin Comprehensive Cancer Center, K4/666, 600 Highland Avenue, Madison, WI 53792-0001.**

POSTDOCTORAL POSITION in allergy and inflammation research laboratory to study a new receptor-mediated pathway for inhibition of mast cell activation (PNAS, 93:10809). Candidates should have a strong background in signal transduction and/or molecular biology, preferably with experience in mammalian cell transfection and transgenic technologies. Send curriculum vitae and contact information for three references to: **Howard R. Katz, Ph.D., Harvard Medical School/Brigham and Women's Hospital, 250 Longwood Avenue, Room 607, Boston, MA 02115. Email: hkatz@warren.med.harvard.edu. An Affirmative Action/Equal Opportunity Employer.**

#### POSTDOCTORAL/RESEARCH ASSOCIATE Hebrew University—Hadassah Medical School Jerusalem

To study neurons and glial cells in autonomic ganglia, with emphasis on gastrointestinal tract. Applicants should have experience in the patch clamp technique. Send curriculum vitae, publications list, and names of three references to: **Menachem Hanani, Ph.D., Laboratory of Experimental Surgery, Hadassah University Hospital, Mount Scopus, Jerusalem, 91240, Israel. FAX: 972-2-823515; Email: hananim@cc.huji.ac.il.**

## POSITIONS OPEN

### POSTDOCTORAL AND JUNIOR FACULTY POSITIONS Cell Signaling/TGFβ/Cell Cycle/Human Cancer

Available immediately. Cellular/molecular studies to identify TGFβ signaling components.

Requires Ph.D. in basic biomedical science and molecular biology experience documented in publications. Send curriculum vitae and three letters of reference to: **Dr. Kathleen M. Mulder, Department of Pharmacology, Penn State University College of Medicine, 500 University Drive, Hershey, PA 17033. FAX: 717-531-5013; Email: kmm15@psu.edu. Penn State is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWS/RESEARCH ASSOCIATES: Two positions are available immediately for highly motivated individuals with strong backgrounds in neurochemistry and/or neuropharmacology to study signal transduction pathways involved in molecular mechanisms of anesthetic action. For one position, expertise in cell culture, protein biochemistry, and cell biology is required while for the other, expertise in pharmacodynamic techniques including *in vitro* isolated tissue experiments is required. Knowledge of CVS pharmacology and experience in HPLC will be an advantage. Submit curriculum vitae; a one-page description of research experience, interests, and future goals; and names of three references to: **Dr. M. Bansinath, Department of Anesthesiology, New York University Medical Center, 550 First Avenue, New York, NY 10016.**

POSTDOCTORAL POSITIONS available immediately in biomimetics and tissue engineering. Expertise is required in one of the following areas: 1) polymer synthesis, 2) polymer processing, 3) drug delivery, and 4) cell and tissue culture. Submit curriculum vitae and names of three references to: **Dr. A. G. Mikos, Rice University, Institute of Biosciences and Bioengineering—MS 144, 6100 Main Street, Houston, TX 77005-1892. <http://www-bioc.rice.edu/Institute/IBB.brochure/index.html>.**

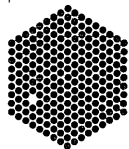
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POSTDOCTORAL POSITION is available immediately to explore the use of alternative targets to identify bacterial populations in food. Project includes the use of oligonucleotide hybridization assays and the use of phage display libraries to develop potential oligopeptide probes. Applicants must have a strong background in molecular biology and protein biochemistry. Send curriculum vitae, statement of research interests, and the names and addresses of three references to: **Dr. Andrew K. Benson, Department of Food Science and Technology, University of Nebraska-Lincoln, 358 Food Industry Complex, Lincoln, NE 68583-0919. FAX: 402-472-1693; Email: abenson@foodsci.unl.edu.**

POSTDOCTORAL POSITION in gene expression to study transcription factor regulation of *Drosophila* muscle genes in tissue culture and transgenic flies (PNAS, 93:4623). Experience in molecular biology is required and experience in *Drosophila* biology is desirable. Position is available immediately. Applicants must have a Ph.D. Send curriculum vitae and names of three references to: **Dr. Robert V. Storti, Department of Biochemistry (MC/536), University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612. University of Illinois, Chicago is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available for a biochemist to perform mechanistic studies on yeast orotidine 5'-monophosphate decarboxylase at San Francisco State University (SFSU) and University of California, San Francisco (UCSF). Experience in protein overexpression and purification required; site-directed mutagenesis and enzymology desirable. Send curriculum vitae and names of two references to: **Dr. Weiming Wu, Department of Chemistry and Biochemistry, San Francisco State University, San Francisco, CA 94132. FAX: 415-338-2384; Email: wuw@sfsu.edu.**

POSTDOCTORAL POSITION is immediately available to investigate the mechanism(s) by which intestinal and neuro peptides modulate intestinal epithelial cell proliferation and differentiation. A strong background in molecular biology, protein chemistry, and cell biology is highly desirable. Please forward a curriculum vitae and names and addresses of referees to: **Dr. Gregory W. Aponte, Department of Nutritional Sciences, University of California, Berkeley, CA 94720-3104.**



## **EMBL** European Bioinformatics Institute (EBI), Hinxton, UK

The European Molecular Biology Laboratory, an international research organization with a headquarters laboratory situated in Heidelberg, Germany, has vacancies at its Outstation, the European Bioinformatics Institute (EBI) at Hinxton, near Cambridge, UK for

### **RESEARCH AND DEVELOPMENT OFFICERS (2)**

#### **APPLIED COMPUTING AND BIOINFORMATICS**

To participate in a European research project designing and developing new information retrieval systems which are capable of interoperating between independent data sources and their services. This project will utilise leading edge technologies requiring innovative and well motivated candidates holding a relevant university degree.

A PhD would be an advantage. Candidates should be familiar with biological databases and have programming skills in C++ and/or Java. Experience of database theory and design, WWW and CORBA would be useful but not essential.

The contract will be for three years in the first instance.

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**The Head of Human Resources, EMBL, Postfach 10.2209,  
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- Regulation of plant reproduction
- Plant biochemistry

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Interested candidates may fax or mail applications and enquiries concerning Genesis and current research programmes to **Dr. J.D. Watson, Director of Research, Genesis Research and Development Corporation, P.O. Box 50, Auckland, New Zealand.** Fax: ++64 09-373-5601.

Applicants should send a cover letter detailing experience relevant to one or more of the subdisciplines listed above, a curriculum vitae and the names of three scientists who can evaluate their accomplishments and potential. Applications close 15 December 1996.

## **KUWAIT UNIVERSITY** **Health Sciences Centre** **Faculty of Medicine**

### **Post of Chairperson in Medical Biochemistry**

The Faculty of Medicine is seeking applications for the post of Chairperson for the Department of Biochemistry. Applications are sought from individuals with a strong academic, research, and administrative background. The post will be at the rank of Professor. Candidates with extensive experience in teaching and administrative background in a medical school are preferred. Specialization may be in any of the following areas: molecular biology, endocrinology, enzymology, nutrition, and clinical chemistry. Applicants must have 15-20 years of experience in the field, after completing their Ph.D.

The Department is currently involved in undergraduate programs and is planning to reactivate its M.Sc. programs.

A generous package is offered, which includes annual round trip airline tickets for appointee, spouse, and children to the age of 18 years; allowances for accommodation and furniture; 60 days paid summer leave; two weeks midyear break; end-of-service gratuity, school allowance for children up to 18 years of age; and free medical care in Kuwait government hospitals.

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Applications may be obtained from:

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U.S.A.**

**Telephone: 202-363-8055**

Applicants should send application, a copy of their C.V., and the names and addresses of three references to:

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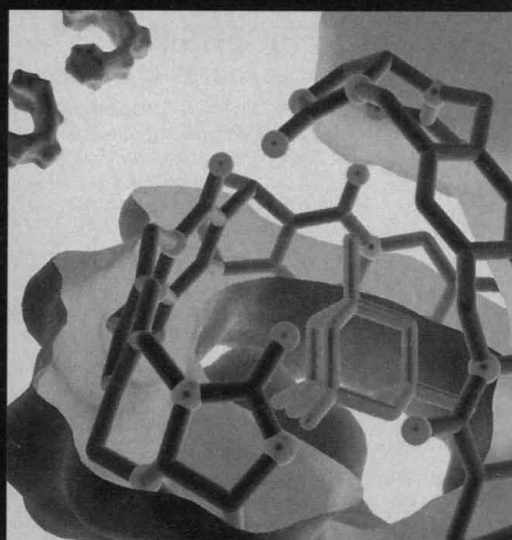
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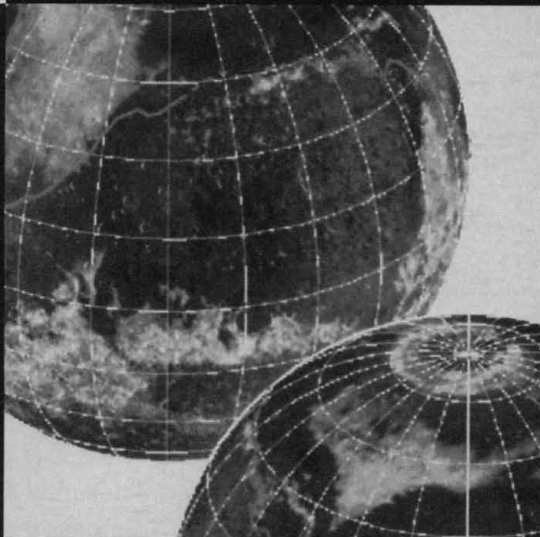
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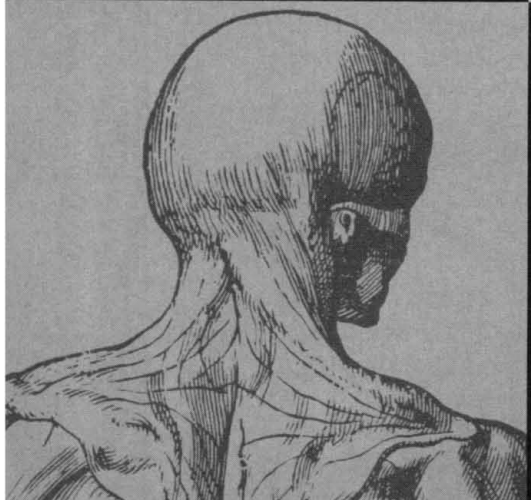
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# SCIENCE



## POSITIONS OPEN

### POSTDOCTORAL POSITION

A **POSTDOCTORAL POSITION** is available immediately to study drug- and disease-induced regulation of gene expression in the CNS. The project involves: 1) cloning of the gene(s) whose expression is influenced by either drug treatments or neuropsychiatric disorders; 2) elucidating the function(s) of the genes in the CNS; and 3) characterizing the factors governing the regulation of the genes. The successful candidate will have a Ph.D. in Molecular Biology, or in a related discipline with experience in gene cloning, PCR, RNA protection assays, and regulation of gene expression in mammalian systems. Interested applicants should send curriculum vitae, statement of research interests, plus names and addresses of three references to: **Hussein K. Manji, M.D., Schizophrenia and Mood Disorders Clinical Research Division, Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, UHC 9B, 4201 St. Antoine Boulevard, Detroit, MI 48201. Telephone: 313-966-7544; Email: hmanji@med.wayne.edu.** Wayne State University is an Equal Opportunity/Affirmative Action Employer. All Wayne State University buildings, structures and vehicles are smoke-free. Wayne State University—People working to provide quality service.

### POSTDOCTORAL POSITION University of Washington Department of Biochemistry

Available January 1, 1997. Seeking recent Ph.D. or M.D. interested in working on a project involving the purification and characterization of specific proteins from human macrophages. Must have solid background in protein chemistry and molecular biology and be fluent in English.

Position restricted to individuals who have no more than one year of prior postdoctoral experience. Three-year maximum support for 1996 or early 1997 Ph.D. Candidates should send curriculum vitae, three letters of recommendation, and summary of career goals to: **Dr. John Glomset, Department of Biochemistry, Box 357370, University of Washington, Seattle, WA 98195.** Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION

**University of North Carolina, Chapel Hill  
Departments of Anesthesiology and Pharmacology**

A **POSTDOCTORAL POSITION** is available in neurophysiology (patch clamp, PT-PCR, and neuroanatomy techniques are primary) to study the mechanism of anesthetic effects on ligand and voltage gated ion channels. The successful candidate must have a Ph.D. degree with a neurophysiology/pharmacology focus. Experience with patch clamp or molecular biology techniques is desirable. Interested applicants should send their curriculum vitae and names of three references to: **George R. Breeze, Ph.D., c/o Linda Hunt, Department of Anesthesiology, 223 Burnett-Womack, CB Number 7010, UNC at Chapel Hill, Chapel Hill, NC 27599-7010.** University of North Carolina is an Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS CELL BIOLOGY-MAYO CLINIC

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Another position available to study the detrimental effects of alcohol on vesicle-based protein trafficking in epithelial cells.

Applicants should be permanent U.S. residents or citizens; have a Ph.D. or M.D. degree; and have experience in biochemical, cell biological, or molecular techniques. Send résumé and letters of reference to: **Mark A. McNiven, Ph.D., 1721 Guggenheim Building, Mayo Clinic, 200 First Street SW, Rochester, MN 55905.**

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**POSTDOCTORAL POSITION** available immediately. Molecular physiology of the  $IP_3$  receptor ion channel involved in intracellular calcium release. Molecular, biochemical, electrophysiological, and imaging approaches will be used to examine structure/function and protein-protein interactions. Experience in yeast two-hybrid systems desirable. Send curriculum vitae and names of three references to: **Dr. Kevin Foskett, University of Pennsylvania, Institute for Human Gene Therapy and Department of Physiology, Room 313B Stellar-Chance Laboratories, 422 Curie Boulevard, Philadelphia, PA 19104-6100. FAX: 215-573-6808.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION MOLECULAR MYCOLOGY

The Infectious Diseases Section of the Bowman Gray School of Medicine, Wake Forest University, announces an opening for a two-year **POSTDOCTORAL** position. Candidates should have a Ph.D. degree in a molecular discipline, preferably with mycology experience. Duties will be 100% research, focused on pathogenesis of human opportunistic fungal infections including aspergillosis and cryptococcosis.

Applicants should submit a curriculum vitae and the names of three references. Applications will be accepted until the position is filled. Please send materials to: **Ronald G. Washburn, M.D., Associate Professor of Internal Medicine, Section on Infectious Diseases, Bowman Gray School of Medicine, Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157. Email: rwashburn@bgsu.edu.** Affirmative Action/Equal Opportunity Employer.

## GLOBAL CAREERS

### DEPARTMENT OF BIOCHEMISTRY ETH Zurich Protein and Molecular Biology Technologist

To work in a multidisciplinary research team on the mechanism of cholesterol and lipid absorption in the small intestine.

Job duties involve the preparation of brush border membrane vesicles from small intestine, lipid uptake measurements using brush border membrane vesicles and other models of the brush border membrane, isolation and purification of integral membrane proteins, and molecular biology research using the following techniques: 1) For lipid uptake measurements: fluorescence and other spectroscopic assays. 2) For protein chemistry: gel filtration, ion exchange chromatography, affinity chromatography, chromatofocusing, SDS-PAGE and immunoblotting, protein and lipid analysis. 3) For molecular biology: DNA and RNA isolation and analysis, restriction digest of DNA and RNA, electrophoresis, hybridization, southern and northern blotting, recombinant DNA techniques.

Applicant must have a B.S. in biochemistry, biology, molecular biology, or a related field. Salary is negotiable and will depend on experience and expertise, in the range of \$35,000 to \$55,000. Please send complete curriculum vitae together with a statement of your research experience and expertise and two letters of reference to: **Prof. Dr. H. Hauser, Department of Biochemistry, Swiss Federal Institute of Technology, CH-8092 Zurich, Switzerland.**

### DEPARTMENT OF BIOCHEMISTRY ETH Zurich Ph.D. Studentship

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Candidates who hold a first class honours degree in biochemistry, molecular biology, or a related subject should send a full curriculum vitae and two to three letters of reference to: **Prof. Dr. H. Hauser, Department of Biochemistry, Swiss Federal Institute of Technology, CH-8092 Zurich, Switzerland.**

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# ELECTROPORATION NEWS

## GENE THERAPY AND BTX ELECTROPORATION SYSTEMS:

### \* ELECTRO-GENE TRANSFER THERAPY

*In vivo* gene transfer using *in vivo* electroporation in rat brain tumors, with the BTX T 820 and the Optimizor® 500

### \* ELECTRO-IMMUNO GENE THERAPY

*In vitro* genetic modification of 9 L cells with pCEP-4/TGF- $\beta$  antisense vector... using a BTX T 820



In a recent experiment, researchers combined *in vivo* electroporation and intraarterial plasmid DNA injection for high efficiency *in vivo* gene transfer. "This method, 'electro-gene therapy', which does not require viral genes or particles, allows genes to be transferred and expressed in desired organs or tissues, and it may lead to the development of a new type of highly effective gene therapy."<sup>1</sup>

In another separate experiment, researchers using electroporation demonstrated that the efficacy of tumor cell vaccines may be significantly enhanced by genetic modification to suppress tumor cell TGF- $\beta$  expression. "Our findings suggest that strategies to inhibit the expression of these immunosuppressive factors may be important in the development of future immuno-gene therapies for cancer"<sup>2</sup>

<sup>1</sup>Nishi, T., et al, "High Efficiency *In Vivo* Gene Transfer Using Intraarterial Plasmid DNA Injection Following *In Vivo* Electroporation", *CANCER RESEARCH*, 56, 1050-55 (1996)

<sup>2</sup>Fakhrai, H., et al, "Eradication of established intracranial rat gliomas by transforming growth factor  $\beta$  antisense gene therapy" *Proc. Natl Acad. Sci., U.S.A.* Vol. 93, pp 2909-2914 (April 1996)



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