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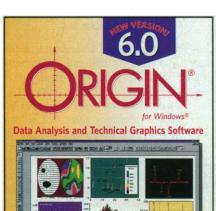




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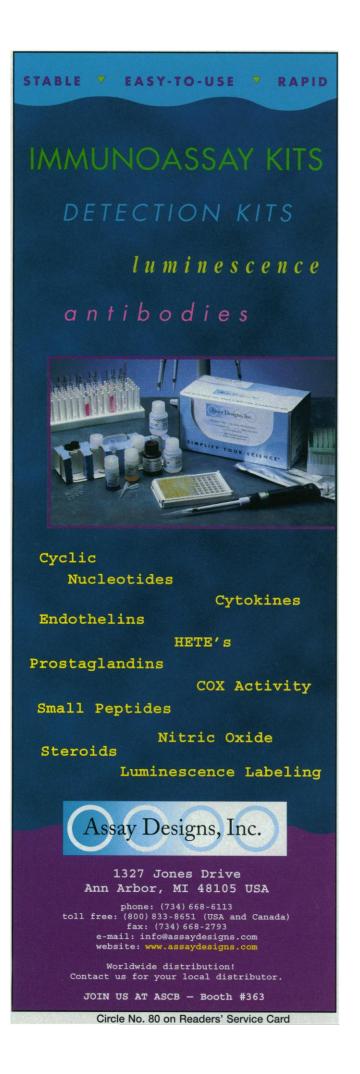
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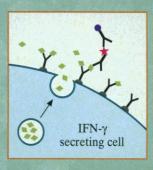




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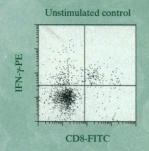
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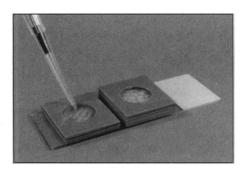
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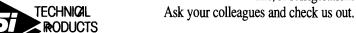
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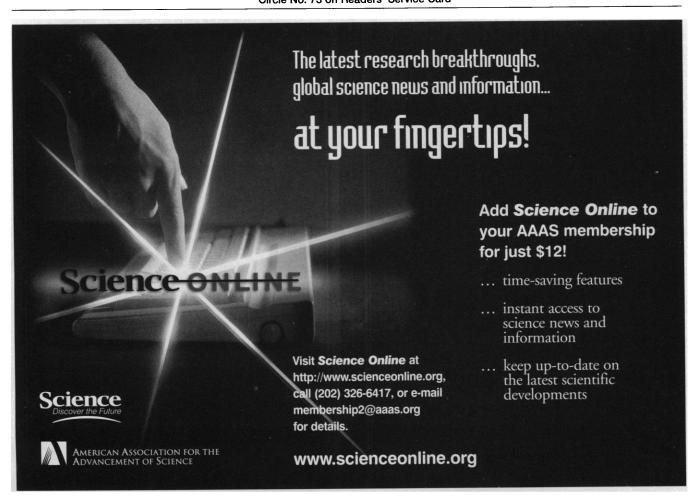
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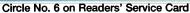
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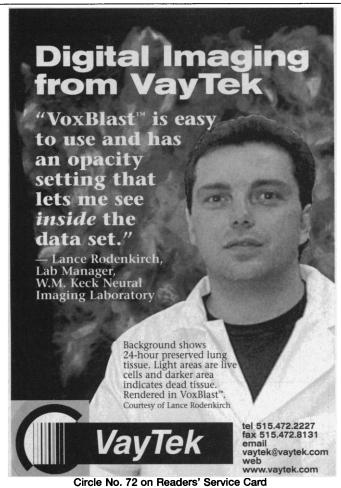


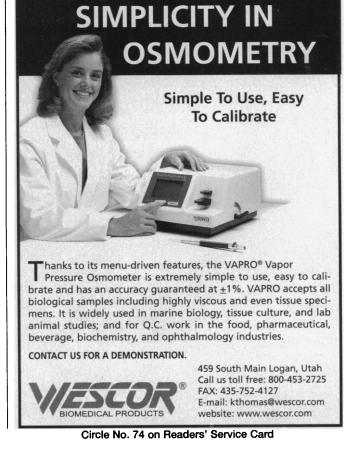
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# BIOLOGY THE VALUE OF SPECIALIST SKILLS focus on careers

Degrees in cell biology carry less clout than they used to with academic departments and funding agencies. But add special training to a cellular biology qualification, and the sky's your limit.

In a survey last year, members of the American Society for Cell Biology painted a grim picture of their chosen profession. The average time to complete a Ph.D. had risen to 5.6 years, from 4.4 years in the 1970s. Once having acquired the doctorate, cell biologists discovered that finding a desirable full-time post was increasingly difficult. Almost one in three cell biologists who received their Ph.D's in the 1990s felt that they would probably not do it again were time wound back.

But the gloom extends only so far. Several career opportunities await cell biologists who obtain special training in such areas as proteomics and bioinformatics. Here, we discuss a program designed to give cell biologists a specific type of new skill.

**MEMPHIS, Tennessee:** "We're seeing a dramatic increase in the application of cell biology to infectious diseases," says Elaine Tuomanen, chair of infectious diseases at St. Jude Children's Research Hospital. "In the past five years, we have recognized that we can use bacteria to explore human cells. To understand microbial pathogenesis, you need a cell biology background. For Ph.D's, there's an enormous opportunity here. M.D's in the field also need an understanding of cell biology."

The subject of the excitement has already emerged as a new discipline — microcellular biology — that represents a fusion of medical and cellular biology. "It's such a fruitful area for medicine," says Tuomanen. "You need a place where these people can mix and match with each other, and come up with findings that will dramatically impact children. We want diversity. The key is to bring in the tremendous innovative flavor of this field."

To do that, St. Jude is building a new center for microbial pathogenesis. The center will form part of a general expansion that will double the size of the research hospital. "At present, we have a faculty of ten (in microbial pathogenesis), each of whom oversees five to eight positions," says Tuomanen. "We're talking about doubling that."

Finding qualified scientists is difficult, because training opportunities in microcellular biology are limited. The few laboratories

#### by Peter Gwynne

that offer training in the discipline — including Harvard, Stanford, and Tufts Universities, and Washington University, St. Louis in the U.S. — tend to hold onto the individuals they train, to teach the subject to the next generation. So Tuomanen has developed what she calls "an educational initiative to grow these types of investigators." The initiative offers fellowships that will permit candidates to train in the top laboratories before returning to St. Jude. "We need these people so much that we're willing to fund them

from A to Z," says Tuomanen.

The fellowships will be available to both Ph.D's and M.D's. "We have to identify these people early enough so that, when they make their initial decision on Ph.D. or M.D. training, we put them in the cell biology investigative lab," Tuomanen continues. "We have to convince them that being a bridge person between these two disciplines is where they should be."

Academic excellence in cell biology or medical biology is a prerequisite for entry to the program. But Tuomanen seeks more. "A key element is to be an individual who wants to think out of the box," she says. "These bacteria are crazy. To think about experiments with them needs remarkable vision. I always approached infectious diseases from a disease standpoint,

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which by definition means you need to study the cellular biology of response to the bacteria. I wish I could turn back the clock and have these opportunities with all the tools available today."

What advice does Tuomanen have for cell biologists interested in her program? That's simple. "Call me," she says. ■

ELAINE TUOMANEN

For further valuable career features, go to www.sciencecareers.org, then click on Advice and Perspectives.

A former science editor of Newsweek, Peter Gwynne writes about science and technology from his base on Cape Cod, Massachusetts, USA.

# Pioneering Breakthroughs Setting



Recently, **St. Jude Children's Research Hospital** embraced a 5-year, \$1 billion expansion project to support its continuing advances in the fight against childhood diseases. With this expansion brings new and exciting career opportunities for motivated individuals in the following areas:

•Senior Research Technologists

Cell & Gene Therapy (Job Code: SCM-1826)
Biochemistry (Job Code: SCM-2160)
Experimental Hematology (Job Code: SCM-1623)
Infectious Diseases (Job Code: SCM-2864)
Molecular Pharmacology (Job Code: SCM-2931)
Hartwell Center for Bioinformatics & Biotechnology (Job Code: SCM-1186)
Virology & Molecular Biology (Job Code: SCM-3959)
Viral Oncogenesis Program (Job Code: SCM-3204)

• Director of GMP Core Facility (Job Code: SCM-3477)

•IRB Administrator (Job Code: SCM-4101)

Research Technologists
 Biochemistry (Job Code: SCM-2161)
 Genetics (Job Code: SCM-1827)

As one of the great international educational and teaching institutions for pediatric diseases, St. Jude provides regular workshops, seminars and lectures presented by both the St. Jude faculty and distinguished visiting investigators. St. Jude's non-faculty research staff career ladder provides several levels of promotion for technologists to advance in their field. Experienced technologists may assist the principal investigator by performing research experiments, developing new procedures, participating in the publication of research results, managing laboratory operations and training laboratory personnel.

St. Jude is located in Memphis, Tennessee, a city rich in history and culture stretching from the banks of the mighty Mississippi to the rolling green hills of eastern Shelby county. Memphis has something to offer everyone whether it's the dazzling night life along legendary Beale Street, the cultured theaters and museums, breathtaking nature preserves, or walks through historic, picturesque Midtown. Memphis also hosts over 150 festivals and special events each year in addition to many major sporting events. So whatever your interest, Memphis can offer you a world of possibilities!

To be considered, e-mail or mail your resume to:

St. Jude Children's Research Hospital Human Resources Department 332 North Lauderdale Memphis, TN 38105 E-mail: virgil.holder@stjude.org St. Jude Children's Research Hospital is an internationally renowned research and treatment center for children with catastrophic diseases primarily pediatric cancers. The scientists at St. Jude are committed to biomedical research that seeks to understand the molecular causes of disease, improving diagnosis and treatment, minimizing immediate and long-term side effects, and ultimately - to finding a cure for those diseases. Current basic and clinical research at St. Jude includes work in molecular biology, bioinformatics, chemotherapy, the biochemistry of normal and cancerous cells, radiation treatment, resistance to therapy, blood diseases, viruses, influenza, bone marrow transplantation and cell and gene therapy.



ALSAC . Danny Thomas, Founder



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Carolinas HealthCare System, located throughout the Charlotte, NC area, is a premier, multi-faceted healthcare organization whose facilities make up one of the largest integrated healthcare systems in the United States. With over 18,000 employees, Carolinas HealthCare System offers its employees unlimited opportunities to grow and demonstrate abilities in a diversity of settings where superior healthcare is a fundamental commitment.

#### Research Fellow

Department of General Surgery • Cannon Research Center

The Cannon Research Center, located in Charlotte, NC, is a 40,000 square foot, fully-equipped research facility with an AAALAC approved vivarium. Our research center is part of Carolinas Medical Center, which is an academic teaching center with 11 medical and surgical residency programs. The faculty holds academic appointments at UNC Chapel Hill, UNC Charlotte and Clemson University.

We're seeking a postdoctoral fellow in bioengineering (or equivalent) as it relates to tissue engineering for a 2-year funded collaborative effort with researchers at the University of Michigan, University of Massachusetts, Harvard, MIT and Reprogenesis, Inc. This project will focus on the creation of autologous cellular constructs for the development of a soft tissue for plastic and reconstructive surgery, specifically for breast tissue reconstruction. Interface experience between cells and biomaterials required with a background in cell adhesion/integrin expression and biomaterial development a plus.

We offer a competitive salary and benefits package. Interview and relocation assistance are available. Please send, fax or email resume to: Carolinas HealthCare System, Attn: Employment Services/DR, PO Box 32861, Charlotte, NC 28232-2861 or call (800) 671-0650; fax: (704) 355-3336; email: hrempdiv@carolinas.org (please indicate position in subject line).



St. Jude Children's Research Hospital

#### POSTDOCTORAL POSITION CANCER RESEARCH

A Postdoctoral position is available immediately to study the function of death receptors of the TNF receptor superfamily and their signaling pathways in the chemotherapeutic response of human neoplastic diseases. The current focus of the laboratory is on the role of Fas and TRIALS Signaling in the induction of apoptosis and cell death in solid tumors. Studies encompass the areas of molecular and cell biology, biochemistry, and pharmacology, and include the use of cultured human tumor cell lines and xenografts in scid mice for approaches in developmental therapy. Applicants should have a recent Ph.D. degree in pharmacology, molecular biology, biochemistry, or a related discipline, or hold Pharm.D or M.D. degrees. Submit curriculum vitae with names of three references to: Dr. Janet Houghton, Department of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38105. Affirmative Action/Equal Opportunity

#### UMass Medical School Brudnick Neuropsychiatric Research Institute

The University of Massachusetts Medical School (UMMS) Department of Psychiatry invites applications for assistant and associate professor level tenure-track faculty positions in its new Brudnick Neuropsychiatric Research Institute (BNRI). The Institute will be under the future direction of Edward Ginns, M.D., Ph.D. Program facilities include a new state-of-the-art laboratory building with extensive animal, office and conference facilities. Preference will be given to applicants with interdisciplinary backgrounds and research with a major emphasis on mental illness, bridging the areas of molecular psychiatry and neurology, clinical neuroscience, neurobiology and neurogenetics research. We seek applications from highly motivated candidates (MD and/or PhD and DVM) with "bench to bedside" research interests in a) cellular, molecular, and developmental neurobiology; b) the study of model systems (such as drosophila, nematodes, zebrafish, and mice); c) neurogenetics (including genome based analysis of complex traits in model systems and humans and the generation and phenotypic characterization of transgenic and gene targeted mouse models), cytogenetic studies, QTL analyses and transcript expression profiling (in situ and microarray technology); d) statistical genetics; and e) proteomics. In this highly collaborative environment successful candidates are expected to establish an outstanding, independent research program and participate in graduate, professional school, and clinical/research fellowship teaching programs. Opportunities for joint appointments in othe clinical and basic science departments are available. Salary and fringe benefits are competitive and there is an attractive recruitment package.

Interested candidates should send their curriculum vitae, the names and complete addresses of at least five references, and a description of current and future research interests to: Paul S. Appelbaum, M.D., Professor and Chair, Department of Psychiatry, BNRI Faculty Search, University of Massachusetts Medical School, Room S7-866, 55 Lake Avenue North, Worcester, MA 01655. Review of applications will begin upon their receipt. The University of Massachusetts Medical School is an equal opportunity/affirmative action institution. (www.umassmed.edu)



The **Howard Hughes Medical Institute**, at the Brigham & Women's Hospital in **Boston, MA**, is seeking candidates for the following research positions:

#### POSTDOCTORAL ASSOCIATE

Position available to study the molecular genetics of human leukemias. Project will involve applying molecular biological methods to the analysis of structure-function relationships in transformation mediated by leukemogenic fusion proteins in cell culture systems and in animal models. **Requirements:** Ph.D. and a strong background in molecular biology with preference given to candidates with expertise in transcriptional activation, preparation/analysis of transgenic animals, manipulation of ES cells, and murine genetics.

#### RESEARCH TECHNICIAN

An opportunity exists for a Senior Research Technician to maintain an embryonic stem cell facility within a laboratory, facilitate ES cell transfection and selection by members of the laboratory, monitor murine lines derived from ES cells, and participate in the design and construction of genomic targeting vectors. **Requirements:** BS/BA plus four years experience, or MS plus two years experience. Must have experience with murine embryonic stem cells, management of murine colonies, including breeding and genotyping, and molecular biology experience with an emphasis on molecular cloning.

HHMI offers competitive salaries and an excellent benefits package. Please send cover letter *indicating position of interest*, curriculum vitae, and names of three references to: D. Gary Gilliland, Ph.D., M.D., Brigham & Women's Hospital, Harvard Institutes of Medicine, 4 Blackfan Circle, Boston, MA 02115. E-mail: gilliland@calvin.bwh.harvard.edu HHMI is an equal opportunity employer.





### PIONEER HI-BRED INTERNATIONAL, INC.



### ...the plant genetics company.

Located near Des Moines, Iowa, Pioneer Hi-Bred's ninety-acre campus, including our recently completed laboratory expansion, offers a superb working environment. We currently have the following scientific opportunities available to suitably experienced, highly motivated individuals seeking to make an impact on the future of agriculture.

#### SENIOR RESEARCH ASSOCIATE (Job #99272E)

#### ANALYTICAL BIOCHEMISTRY - NUCLEIC ACID ANALYSIS

The Nucleic Acid Analysis group in Pioneer is looking for an individual to join a team providing analytical support at the nucleic acid level to various research groups within Pioneer. This person will supervise three or four scientists within the NAA lab and provide leadership to the team as they use PCR, RT-PCR and Southern blot analysis to characterize transgenic crop plants. Duties range from scheduling and prioritizing of requested analysis to hands-on bench work. Regular meetings to coordinate analysis efforts with the various trait groups within Pioneer will be required. The successful candidate will be expected to guide the efforts of the lab to implement high throughput automation systems. A Masters degree or equivalent in Plant Molecular Biology or related field plus at least four years of relevant industrial laboratory experience is required. In addition the successful candidate will have direct industrial experience in a wide variety of technologies (i.e., PCR, RT-PCR, Southern blotting) used to analyze nucleic acids. Previous involvement in high-throughput analysis using robotics and automation is mandatory. Supervisory experience is desirable. Strong interpersonal, organizational and communication (both written and oral) skills are important.

#### RESEARCH ASSOCIATE (Job #99271E)

#### **ANALYTICAL BIOCHEMISTRY - NUCLEIC ACID ANALYSIS**

The Nucleic Acid Analysis group is looking for an individual to join a laboratory that is responsible for identifying and characterizing at the nucleic acid level a wide variety of transgenic crop plants. The RA is responsible for characterizing genetically engineered plants using predominantly PCR and RT-PCR. Some Southern blotting analysis may also be needed. Other duties will require interaction with the other members of the NAA team to evaluate and implement methodologies to enhance our analysis capabilities. The position will also require troubleshooting assay procedures and managing and analyzing data. A B.S. degree or equivalent in Molecular Biology or related field plus at least 2 years of relevant laboratory experience. Hands-on experience designing and performing PCR and RT-PCR assays is essential. The successful candidate will have some familiarity with handling and processing samples in high throughput situations. Computer skills and experience with robotic systems to automate analysis processes will be advantageous. Strong interpersonal, organizational and communication skills are imperative. Exposure to plant breeding and genetics is of value.

#### RESEARCH ASSOCIATE (Job #99275E)

#### ANALYTICAL BIOCHEMISTRY- CORN GENETIC MARKERS GROUP

Pioneer's Corn Genetic Markers Group is seeking an individual to join a highly automated laboratory group that is responsible for genetic marker analysis for corn. The RA will be part of a team that provides quality analytical data to designated trait groups within Pioneer to support product development efforts. The individual will be responsible for providing analytical support in areas of automation, robotics, and inventory management targeted towards gene discovery and crop improvement. Competency troubleshooting and effectiveness in developing strategies to resolve laboratory process issues is a necessity. Other duties will require interaction with lab members to evaluate and implement methodologies to enhance our marker capabilities. Requirements include a B.S. degree or equivalent in biological sciences or closely related field plus at least 2 years of relevant laboratory experience. Hands-on experience performing PCR and genetic marker assays is essential. The successful candidate will have some familiarity with handling and processing samples in high throughput situations. Computer skills and experience with robotic systems including automated analysis processes would be advantageous. Strong interpersonal, organization, and communication skills are imperative.

#### RESEARCH ASSOCIATE (Job #99258E)

#### ANALYTICAL BIOCHEMISTRY - PROTEIN ANALYSIS/REGULATORY SCIENCE

An individual is needed to provide protein analytical support for regulatory studies. This individual will join a lab operating under Good Laboratory Practices (GLP), which is responsible for analysis of proteins in transgenic crop plants. The successful applicant will contribute to the lab's analytical effort in generating quality data for regulatory studies in support of product registration. Duties/responsibilities include plan, discuss and execute experiments in support of regulatory studies. Communicate data and conclusions timely to the Research Manager and/or Regulatory Affairs. Results/conclusions of experiments are presented orally and/or in writing as appropriate. Perform studies/experiments in compliance with GLP. A B.S. in biological sciences or closely related field and 1-2 years of protein analysis experience using immunological methods (particularly ELISA) is required. Experience working in a GLP environment is highly desired, and experience with transgenic plant protein analysis would be beneficial. The successful candidate must have excellent communication, technical writing and record keeping skills. Also, demonstrated ability to manage multiple projects at one time is highly desired. Competence in GLP, statistics, quality control and MS Office software is desired.



Pioneer Hi-Bred Int'l, Inc., is the world leader in the discovery, development and delivery of elite crop genetics.

We are committed to developing and incorporating both time-tested approaches and cutting edge technologies

that will continue to make our products superior to any in the industry. Pioneer's research programs, research collaborations, extensive germplasm base and advanced

work in genomics are unmatched by our competitors.



Pioneer employs more than 400 scientists, in an environment where individual achievements and team accomplishments come together to provide a rich and rewarding work experience. We strive to give each scientist the opportunity to make a difference...to be inventive and resourceful...to make a significant contribution.

Pioneer Hi-Bred is committed to competitive compensation and excellent annual reward systems plus a comprehensive bene-

fits package including 401(k), tuition reimbursement and relocation assistance. Des Moines is a prospering, growing city with diverse cultural, economic, industrial and consumer resources. It ranks well above the national average in quality of life including affordability and education

( www.smartcareermove.com ). For confidential consideration,

e-mail your resume and a cover letter, indicating job code to: (jobsresearch@phibred.com)

or send to: Human Resources, Pioneer Hi-Bred International, Inc. Research & Product Development 7300 N.W. 62nd Ave. PO Box 1004 Johnston, Iowa 50131-1004

http://www.pioneer.com



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#### POSTDOCTORAL POSITIONS

Post-doctoral positions are available to study the molecular and cellular basis of Pneumococcal and Mycobacterial infections. We are using a variety of genetically altered mouse models to investigate the function of cytokines in bacterial disease as well as information from the pneumococcal and mycobacterial genomes to understand the pathophysiology of bacterial diseases from both the host and pathogens perspectives. Specific areas of interest focus on response of live cells, macrophages, neurons, glia and blood brain barrier endothelial cells.

The ideal candidates will have a strong background in bacterial genetics, host-pathogen interactions, immunology and/or mouse models of infectious diseases and will have obtained a Ph.D. and/or M.D. Our laboratories are part of the Department of Infectious Diseases which has strong programs in diverse aspects of bacterial pathogenesis. The support facilities and the research environment at St. Jude Children's Research Hospital are exceptional, with strong collaborative interactions between departments within St. Jude as well as affiliated programs in the Memphis area.

These positions are available immediately. Interested candidates should send a curriculum vitae and three letters of recommendation to: **Elaine Tuomanen, M.D. or Peter** Murray, Ph.D., Department of Infectious Diseases, St. Jude Children's Research Hospital, 332 North Lauderdale St., Memphis, TN 38103. An Equal Opportunity/Affirmative Action Employer.



#### **MAYO CLINIC** POSTDOCTORAL POSITIONS

Postdoctoral positions are available immediately to study the biochemical and molecular aspects of breast/ ovarian cancer and the roles of tumor suppressor genes p53, BRCA1 and BRCA2. A strong background in molecular and cellular biology is essential. Prior experience in working with mice is preferred. Please send curriculum vitae and the names of three references to:

Junjie Chen, Ph.D. **Department of Radiation Oncology** Guggenheim Building, 13th Floor Mayo Clinic 200 First St., SW Rochester, MN 55905

Mayo Foundation is an affirmative action and equal opportunity employer and educator.

#### **ANNOUNCEMENTS**

#### **Request for Proposals**

James S. McDonnell Foundation New Programs for 2000 Deadline: March 15

The James S. McDonnell Foundation announces new program descriptions and application guidelines for *The 21st Century Science Initiative*.

This naw initiative requests proposals in two topic areas-Bridging Brain, and initiative requests proposals in two topic areas-Bridging Brain, and initiative requests proposals in two topic areas-Bridging Brain, and initiative requests proposals in two topic areas-Bridging Brain, and initiative requests proposals in two topic areas-Bridging Brain, and application will be a second proposal and the second proposal an support investigator-initiated research projects and multi-institutional collaborative projects.

McDonnell Program in Brain Cancer Research-2000 Deadline: June 16

The James S. McDonnell Foundation seeks applications describing novel research that will increase rates of survival and improve functional recovery for individuals with brain cancer. This program is not intended to provide additional funding for ongoing research projects. Rather it is intended to encourage new ideas and approaches, early in their development, that are unlikely to be funded from traditional sources

McDonnell-Pew Program in Cognitive Neuroscience-2000

The James S. McDonnell Foundation and The Pew Charitable Trusts

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CONTACT INFORMATION: Program information and guidelines for the James S. McDonnell Foundation can be found at: www.jsmf.org. Email inquiries may be directed to info@jsmf.org. There are no geographic restrictions; international applications are encouraged. Information on all James S. McDonnell Foundation programs is available from the web site. Pew Charitable Trusts program information can be obtained at www.pewtrusts.org.

#### Request for Propos

#### Courses & Training

MODELING OF BIOLOGICAL SYSTEMS AN INTERDISCIPLINARY COURSE FOR BIOLOGISTS
AND NON-BIOLOGISTS

MARCH 25 - MAY 4, 2000

Modeling of Biological Systems (MOBS) is an intensive, multi-disciplinary, residential lecture & laboratory course designed to train biologists and nonbiologists to apply and adapt successful modeling approaches in biology to their own research. MOBS is for students in the biological, chemical and physical sciences, mathematics and engineering. The course is organized into thematic cassettes that focus on particular broad areas of biology.

The MOBS curriculum is geared to advanced graduate students and above. Students require at least a working knowledge of college mathematics, preferably including a facility with calculus. Successful applicants will receive pre-course assignments to help with their Course activities. The Course represents an innovative approach to education of modeling of biological systems in its thematic organization, modularity of content, interdisciplinary teaming, and multi-year involvement by both students and faculty.

The faculty will introduce students to successful approaches to modeling used to address contemporary biological questions in a quantiatative fashion. With faculty tutelage, students will have hands-on opportunity to work with these models, and to learn to apply these approaches to their own scientific questions.

Additional information is available at http://courses.mbl.edu

Funding support for the MOBS Course is provided by the Burroughs Wellcome Fund and the National Science Foundation.

Course Director: Robert B. Silver, Marine Biological Laboratory

Faculty: Robert Eisenberg, Rush University; Judith Herzfield, Brandeis University; John Hummel, Argonne National Laboratory; Peter Kollman, UCSF; Stephen Leibholz, Chesapeake TechLabs; John Pearson, Los Alamos National Laboratory; Silvina Ponce-Dawson, Univ. of Buenos Aires; Gregory Petsko, Brandeis Univ.; Robert Silver, Marine Biological Laboratory; Merle Wastney, Georgetown Univ.; and others to be announced.

Application Deadline: December 30, 1999.

Course Fee: \$3,750 (room & board is provided). Scholarship assistance is available.



For More Information or Application Contact: Admissions Coordinator, Marine Biological Laboratory 7 MBL Street, Woods Hole, MA 02543 (508) 289-7401 / email: admissions@mbl.edu

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#### MADE BETTER

#### Pharmaceutical Research Institute, (PRI) Mt. Vernon/Evansville, IN

#### Senior Toxicologist (Senior Project Manager)

Life Made Better. All the things we do make life better. And that begins with the people that work here. That's why we've created a culture remarkable in the corporate world. With respect for diversity of people's backgrounds. A high value for each person's uniqueness – with ample rewards for their achievements. And a healthy balance between work and personal time, because we know one enriches the other.

Leading this charge is the Bristol-Myers Squibb Pharmaceutical Research Institute. PRI is well on its way to becoming the world's preeminent pharmaceutical research organization. Under a new leadership team, we're undertaking the most ambitious expansion plan in our history — reshaping our drug discovery and development processes as we aim for increased productivity and ambitious new targets; building critical mass in our people and facilities; and applying the dramatic advances in science and biotechnology to every facet of our work.

As a Senior Toxicologist, in PRI, at the Mt. Vernon, Indiana site, you will serve on multi-disciplinary project working groups as a representative of non-clinical Drug Safety Evaluation, manage the progression of toxicology activities during drug development, and assist in the management of projects assigned to other Senior Scientists. Additionally, you will design efficient and scientific-based drug safety evaluation programs, coordinate and oversee all contract research organization studies, and prepare and review regulatory documents for worldwide regulatory submissions.

Qualifications include a Ph.D., D.V.M., or equivalent degree in toxicology or related science with a minimum of 7 years of non-clinical drug safety evaluation and project management experience in the pharmaceutical industry. You must be knowledgeable in the drug development process, project management, design of non-clinical drug safety evaluation programs, and preparation of regulatory documents for worldwide filings. You will need full working knowledge of GLPs, ICH guidelines, and other applicable regulations. Excellent written and oral communication skills are required along with planning and organization skills. Since you will be in a leadership capacity, you will need to possess strong leadership and interpersonal skills along with the ability to lead and manage a scientific staff.

Excellent market-based compensation package and an outstanding relocation package enhance this world-class opportunity. When applying please include the following job number on any correspondence, 99-0004096. Apply on line at **www.bms.com** or send your resume to P.O. Box 5335, Princeton, NJ 08543-5335; fax (609) 897-6412.



#### Whitaker Biomedical Engineering Institute at Johns Hopkins

The Johns Hopkins University announces the establishment of the Whitaker Biomedical Engineering Institute. With nationally recognized research programs based in the School of Medicine and the Whiting School of Engineering (WSE) at its core, including those of the Department of Biomedical Engineering, the Institute will provide a highly interactive environment in which multidisciplinary teams of engineers, scientists, computer scientists and mathematicians will address biomedical problems of fundamental importance in the 21st century. Funded in part by more than \$34 million in gifts and grants to the University, including a Whitaker Foundation Leadership Award, the Institute will recruit ten new faculty members over the next four years to build leading research programs in three general areas: BIOMEDICAL IMAGING SCIENCE, COMPUTATIONAL MODELING OF COMPLEX BIOLOGICAL SYSTEMS, and CELL AND TISSUE ENGINEERING. New faculty will be based in Clark Hall, an Institute facility currently under construction on the Johns Hopkins University Homewood Campus. We now invite applications for FACULTY POSITIONS in these three research areas. Appointments will be made in appropriate academic departments of the WSE and will be either tenured or tenure-track in the WSE. Successful applicants must be able to establish independently funded research programs in one of the targeted areas, and will participate in graduate and undergraduate education. For more information on the Institute and Johns Hopkins University, see www.bme.jhu.edu.

In order to ensure full consideration, applications should be received no later than March 1, 2000, Interested applicants should send their curriculum vitae and names of three referees to:

Dr. Murray B. Sachs
Whitaker Biomedical Engineering Institute
The Johns Hopkins University School of Medicine
720 Ross Research Building
720 Rutland Avenue
Baltimore, MD 21205

The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.
Women and Minorities are Strongly Encouraged to Apply.

# DIRECTOR HERMAN B WELLS CENTER FOR PEDIATRIC RESEARCH INDIANA UNIVERSITY SCHOOL OF MEDICINE

The Wells Center for Pediatric Research provides the intellectual and physical environment to support basic research in the Department of Pediatrics. Since opening in 1991, the Wells Center has grown from 4 investigators to a current staff of 24 faculty and 126 employees. Pediatric Clinical Sections represented include Hematology/Oncology, Neonatology, Cardiology, Endocrinology, Pulmonary, and Nephrology and Wells investigators have adjunct appointments in Biochemistry and Molecular Biology, Medical and Molecular Genetics, Physiology and Biophysics, Pharmacology and Toxicology, and Microbiology and Immunology. NIH-funding to the Department of Pediatrics in 1998 ranked 11th nationally with \$7.1 million (direct costs) awarded to the Wells Center.

While the research interests are diverse, basic research in the Wells Center has a goal of developing innovative approaches to identifying the causes and finding new treatments for diseases of children and hastening these treatments into the clinical setting. Hematopoiesis, gene therapy, and cancer therapy are examples of areas of excellence evidenced by receipt of NIH program project grants for Gene Replacement Therapy in Hematopoietic Stem Cells, Genetic Modification/Alternative Sources of Stem Cells, and Dose Intensification by Gene Transduction in Human Cancer. The National Institute of Diabetes, Digestive, and Kidney Diseases has recognized and funded the Wells Center as one of three NIH Centers of Excellence for Molecular Hematology. Another area of excellence has been initiated with recruitment of developmental biologists focusing on cardiac development. Significant resources for development of additional areas of research excellence have been secured.

The Director will be at the professor rank, hold an endowed chair, and serve as the Department of Pediatrics Associate Chairman for Basic Research. The Director will have the opportunity to recruit and/or bring with him/her additional investigators. Applicants are expected to have significant basic research experience and leadership skills. MD and/or PhD required. Interested individuals should send their curriculum vitae to:

Mervin C. Yoder, MD, Chairman Search and Screen Committee Herman B Wells Center for Pediatric Research Indiana University Medical Center Cancer Research Institute 1044 W. Walnut Street, R4-419 Indianapolis, IN 46202

Indiana University is in Equal Opportunity/Affirmative Action Educator, Employer and Contractor (M/F/D)

#### **O** University of Southern Maine

# DIRECTOR OF THE SOUTHERN MAINE BIOSCIENCE RESEARCH INSTITUTE

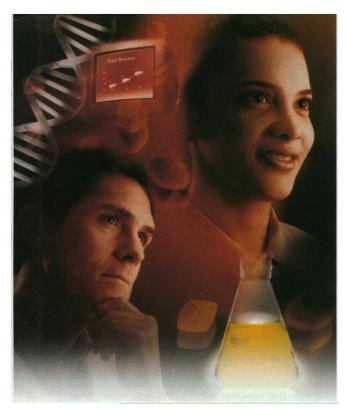
The University of Southern Maine (USM) invites nominations and applications for the position of Director of the newly-formed Southern Maine Bioscience Research Institute. Core funding for the Institute comes from the State of Maine and USM.

The position presents a rare opportunity for a founding director to shape a dynamic research institute. As such the Director will manifest a strong vision for the scientific development of the Institute including elaboration of focus, recruitment of research faculty and the design of new facilities. The successful applicant will be expected to foster productive University interactions with nonprofit, commercial, and other academic institutions throughout Maine and New England, as well as to participate in the University of Maine System's Masters and Ph.D. programs in biology, applied immunology and molecular biology. In addition to demonstrated leadership, managerial ability and administrative experience, applicants must have a terminal degree in a relevant science, possess an outstanding internationally-recognized record of achievement, innovation and major research funding in the broadly-defined area of modern and interdisciplinary bioscience. We hope to attract faculty/staff who share a commitment to diversity, tolerance and an active examination of ideas that can provide our students with a greater understanding of the richness and complexity of our society.

Faculty appointment will be made at the nontenure-track rank of Research Professor and to an appropriate department. Initially, this position will report directly to the Provost and Vice President for Academic Affairs. Salary will be commensurate with experience and competitive at a national level.

USM, with campuses in Portland, Gorham and Lewiston-Auburn, is the largest of the seven campuses in the University of Maine System, with a graduate and undergraduate enrollment of more than 10,600. USM offers 44 baccalaureate programs, 18 graduate programs leading to the masters degree, and a Ph.D. in public policy and management. The University is committed to further development of graduate education and research programs as a strategic priority in the next five years.

Submit a letter of interest and include a curriculum vita highlighting research accomplishments and funding records and the names and addresses of three references to: Director - Bioscience Research Institute Search, Provost and VPAA Mark Lapping, USM, PO Box 9300, Portland, ME 04104-9300. Review of applications will begin immediately and continue until position is filled. Anticipated start date not later than June 1, 2000.



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#### CENTRAL RESEARCH FACILITY - GROTON, CT

#### **ALLERGY & RESPIRATORY DRUG DISCOVERY**

#### **Associate Scientist**

Contribute your strong cell biology and molecular biology skills as part of our Allergy and Respiratory team. Requires 2 years experience post Master's degree or 5 years experience post Bachelor's degree. Strong skills in molecular cloning, protein expression (prokaryotes and eukaryotes), stable cell transfection, FACS and EUSA also required. Ad Code: 982236SCI

#### Research Scientists

The selected candidates will head our biology laboratories and be charged with the discovery of novel allergy and respiratory drug candidates, including selecting a therapeutic focus, identifying novel drug discovery torgets and characterizing the pharmacology of lead molecules. Both positions require a PhD and postdoctoral experience. A technical background in intracellular/cytokine signaling, biochemistry, molecular science or cell biology would be appropriate. Supervisory experience and background performing drug discovery in a multidisciplinary team environment are desirable. Current positions exist in:

• Allergy/IgE - Ad Code: 9929663SCI

• Neutrophil Biology — Ad Code: 9821220SCI

#### **Associate Scientist**

Apply a variety of molecular biology skills to further knowledge about molecules involved in allergic disease and create protein reagents to support drug discovery. Along with a related degree, you will need skills in the following: cloning and expression of recombinant proteins, PCR, construction of cell lines, cell culture, and use of antibodies as research tools. Ad Code: 9930941SCI

#### **INFLAMMATION DISCOVERY TEAM**

#### Principal Investigator, Inflammation

Focus your scientific expertise on developing research programs aimed at identifying new drugs to prevent or reverse cartilage degradation. The ideal candidate will have a PhD in the biological sciences, 2-3 years postdoctoral experience and a strong background in arthritis research. Experience studying cartilage biology using in vitro/in vivo systems preferred. Ad Code: 970583SCI

#### **IMMUNOLOGY DISCOVERY TEAM**

#### Research Scientist, Immunology

Lead a biochemistry lab team focused on immune enhancement and T cell activation, including identifying new drug discovery targets and supporting clinical development of nominated drug candidates. PhD and experience designing experiments to identify novel targets in T cell activation and costimulation, defining the functional role for novel targets, and designing functional assays to profile select drug candidates required. Ad Code: 9821069SCI

#### Research Scientist, Immunology

We seek an *in vivo* Immunologist to contribute ta the discovery of novel immunosuppressive drugs for the treatment of transplant rejection and autoimmune disease. This will include establishing/validating models of transplantation and autoimmune disease, evaluating *in vivo* pharmacodynamics and disease efficacy of select drug candidates. PhD in Immunology or related field with expertise in the characterization of *in vivo* models required. Ad Code: 9812027SCI

Candidates interested in any of the above Groton-based positions should apply through our web site at **www.pfizer.com**. You may also mail your resume, indicating position of interest and Ad Code, to: Pfizer Inc, Central Research, c/o Aon Consulting, PO Box 25, Findlay, OH 45839.

#### DISCOVERY TECHNOLOGY CENTER - CAMBRIDGE, MA

#### Associate Scientist — Molecular/Cellular Biology

Develop cutting-edge protein-based and cell-based assays for high throughput drug discovenes. Requires a BS/MS degree and 2+ years of experience in molecular/cellular biology, including expertise in protein purification and characterization, cell culture development, mammalian expression and stable cell line selection. Jab Code: SC119-JHM

#### Associate Scientist — Screening Technology

Focus on early drug discovery, including the development/characterization and implementation of *in vitro* and cellular-based high throughput screens using a variety of assays. Qualifications include a BS/MS degree and pharmaceutical or academic laboratory experience in biochemical science. Experience in high throughput screening and in the use of multiple detection methodologies is required. Job Code: SC119-SFS

Candidates interested in any of our Cambridge-based opportunities, should send their resumes, indicating Job Code, to: openings@cambridge.pfizer.com. You may also fax to (617) 551-3111 or mail resume to: Pfizer Discovery Technology Center, 620 Memorial Drive, Cambridge, MA 02139. Pfizer is an equal opportunity employer.



#### Assistant PROFESSOR



#### Massachusetts General Hospital Cancer Center **Harvard Medical School Dept. of Cell Biology**

The MGH Cancer Center and the Department of Cell Biology, Harvard Medical School, invite applications for a tenure track faculty position at the level of Assistant Professor.

The successful candidate will occupy laboratories at the Cancer Center in MGH's Charlestown facilities and be a member of the Cell Biology Department at the Harvard Medical School. We seek outstanding individuals wishing to establish a strong research program and encourage applications from Developmental, Cellular and Cancer biologists. The successful candidate is also expected to participate in the teaching activities of the Department of Cell Biology and the MGH Cancer Center.

Candidates should provide curriculum vitae including a full list of publications, four letters of reference, and a brief statement of research and teaching interests. These materials should be forwarded by January 1, 2000 to:

> Search Committee c/o Diane Zabrowski MGH Cancer Center Dept. of Cell Biology Building 149, 13th Street Room 7309 Charlestown, MA 02129

Massachusetts General Hospital and Harvard University uphold a commitment to affirmative action and equal opportunity.

#### **Assistant Professor (tenure-stream) University of Toronto**

The Institute of Biomaterials and Biomedical Engineering at the University of Toronto invites applications for 4 tenure-stream Assistant Professor positions in the Institute. Applicants may have a life sciences and/or an engineering/ physical sciences background. For one of the positions, the candidate must have an electrical or computer engineering background.

The Institute of Biomaterials and Biomedical Engineering is part of three Faculties: Applied Science and Engineering, Dentistry and Medicine. Crossappointments to a Department within these Faculties may also be arranged, depending on the individual. More information on the Institute and the positions can be found at www.ibme.utoronto.ca. Some individuals may be expected to contribute to the Centre for Cellular and Biomolecular Research, a new multidisciplinary research facility.

The successful applicant will have a Ph.D., excellent teaching skills, a strong background in his or her discipline, and demonstrated success in collaborative research at the interface between engineering and medicine/dentistry. The individual will be expected to teach at the undergraduate and graduate level and initiate and maintain an independent research program, of international calibre, in one (or more) of the following areas (order is alphabetical):

- Cellular and Tissue Engineering
- Molecular Imaging
- Nano- and Micro-technology
- Neural Engineering
- Proteomics and Bioinformatics
- Rehabilitation Engineering

• Sensory Systems

Applicants should send a curriculum vitae and three references to Professor Michael Sefton, Director, Institute of Biomaterials and Biomedical Engineering, University of Toronto, 4 Taddle Creek Road, Room 407, Toronto, ON M5S 3G9, Canada. The search will continue until the position is filled. To ensure consideration, interested individuals should submit an application before January 31, 2000.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Toronto is committed to employment equity and encourages applications from women, visible minorities, aboriginal people and physically challenged persons.

#### TWO FACULTY POSITIONS

The University of Maryland (College Park) Department of Geography invites applications for TWO tenure-track faculty positions at the Assistant Professor rank beginning Fall, 2000. A Ph.D. degree in geography or closely related areas from the environmental, biological, computer, or social

The UMCP Geography Department has achieved substantial success in Earth system science, global change research, and the application and development of geographic information science (GIS) and remote sensing. Using this unique combination of concentrations, we are proceeding rapidly to develop geographic models that address both human and physical systems. We are seeking applicants who can demonstrate strong potential in teaching, research, and service relevant to this research direction. Successful candidates will be expected to make significant contributions to the discipline, to further enhance the Department's national and international standing, and to substantially contribute to the strategic development of the Department.

Applicants are sought with areas of expertise that complement and build upon our current strengths. Example areas of interest include:

- Human dimensions of global change
- 2) Geographic information and computational sciences
- 3) Human/physical systems interactions and their policy implications
- 4) Modeling and observation of Earth system dynamics

Applications should include a personal statement of background and experience relevant to the position, including research, teaching and service activities, a signed, dated Curriculum Vitae, reprints of selected peer-reviewed publications, and names and addresses (including e-mail) of 3-5 referees.

For best consideration applications should be submitted no later than January 15, 2000, but search will continue until suitable candidates are appointed. Applications from women and minorities, particularly sought. The University of Maryland is an Equal Opportunity Affirmative Action Employer.

Submit applications to: Ralph Dubayah, Chair, Search Committee, Department of Geography, 2181 LeFrak Hall, University of Maryland, College Park, Maryland 20742-8225.

Further information on these positions and on academic and research programs of the Department may be obtained from the address above and can be found at http://www.inform.umd.edu/geog/.



#### Faculty Positions Department of Biology University of Pennsylvania

The Department of Biology is in the midst of a significant expansion, and wishes to recruit new tenure-track faculty in the following areas:

Cell Biology: We seek a colleague employing state-of-the-art methods to study fundamental problems in cell biology, using any experimental system (animal, fungal, plant, microbial). Possible areas of interest include: biochemical processes, motility/cytoskeletal dynamics, cell cycle regulation, signal transduction, subcellular structure/trafficking, development/differentiation, cell-cell or host-pathogen interactions, etc.

Computational Biology/Genomics: The successful applicant will develop an independent program in any area of computational biology; this position may - but need not - focus on genome informatics. Particular attention will be paid to candidates working on projects with an applied or experimental orientation, and those poised to take advantage of the interdisciplinary research and educational environment at Penn.

Applicants are expected to have demonstrated excellence and productivity in research, and a desire to participate in teaching at both the undergraduate and graduate level. We anticipate that appointments will be made at the Assistant Professor level, but outstanding senior candidates will also be given serious consideration. Applicants should send a CV, description of research interests, and up to three reprints to:

#### Cell Biology or Computational Biology Search Department of Biology, University of Pennsylvania Philadelphia, PA 19104-6018 U.S.A.

Applicants at the Assistant Professor level should also arrange for at least three letters of reference to be sent to the same address. Review of applications will begin January 15, 2000. Further information on the department, including a more detailed description of these positions and additional searches in Ecology and Plant Biology, can be found on-line, at: www.sas.upenn.edu/biology.

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



#### **National Institute on Aging**

#### **BLSA DIRECTOR**

Intramural Research Program
National Institute on Aging/
Laboratory of Clinical Investigation

**National Institutes of Health** 

The NIA's Laboratory of Clinical Investigation is searching for a Director of the Baltimore Longitudinal Study of Aging (BLSA). The tenured position requires an M.D. or M.D., Ph.D., knowledgeable in aging or age-related research. Applicant should have senior leadership in biomedical or epidemiological science, understanding of strengths of long-term longitudinal study design, strong record of peer-reviewed extramural funding and outstanding publication record.

#### **CHIEF, ENDOCRINE SECTION**

Intramural Research Program
National Institute on Aging/
Laboratory of Clinical Investigation

**National Institutes of Health** 

The NIA's Laboratory of Clinical Investigation is searching for physician-scientist for the position of Chief, Endocrine Section in the Laboratory of Clinical Investigation, NIA. The position requires an M.D. or M.D., Ph.D., with demonstrated national and international senior leadership in the area of endocrinology. Applicant must have strong record of peer-reviewed extramural funding, outstanding publication record and be knowledgeable in aging or age-related research.

Please submit a curriculum vitae, summary of current research, selected publications, and three letters of recommendation to:

Mrs. Teri N. Stachowiak
Personnel Management Specialist
National Institute on Aging
5600 Nathan Shock Drive
Baltimore, MD 21224.

Applications must be postmarked by 12/31/99

NIA is an Equal Employment Opportunity Employer

# Westvaco Corporation Forest Science and Technology Project Assistant in Pine Transformation M.S./B.S.

Westvaco is a major manufacturer of paper, packaging and specialty chemicals with an active Forest Science and Technology Department located near Charleston, South Carolina. Ongoing research efforts into the application of biotechnology to tree improvement in forest tree species include somatic embryogenesis, organogenesis, and genetic transformation of pines.

Applications are being accepted for a Project Assistant position in the genetic engineering of pines. Responsibilities will include the initiation and maintenance of transformation experiments; care of embryogenic and organogenic tissue cultures and transgenic plants; and assistance with the molecular analysis of transgenic plants. Associated with these tasks will be documentation of detailed observations, evaluation of data, and assistance with the preparation of technical manuscripts. Additional duties may include general lab maintenance, and assistance with the planting and monitoring of field tests.

The Project Assistant position requires an M.S. degree and directly related work experience in plant tissue culture, preferably woody plant tissue culture or embryogenesis and/or plant molecular biology. Applicants with a B.S./B.A. in Biology or a closely related field and at least three years of relevant work experience may also be considered. All candidates should possess experience which shows competence in scientific method, data analysis, sterile technique, use of a microscope, and computer literacy. Candidates should be able to function well within a team environment, having demonstrated the ability to collaborate with others as well as conduct experiments with a moderate degree of independence.

Authorization to work in the U.S. is required. To apply please send a resume and arrange to have full university transcripts and three letters of recommendation sent to Cindy McCord, Westvaco Forest Science Laboratory, PO Box 1950, Summerville, SC 29484. Only complete applications will be given full consideration. Applications by E-mail will not be accepted. Inquiries only: E-mail clinccor@westvaco.com or telephone (843) 851-4733. Applications will be accepted until Dec. 30, 1999, or until a suitable candidate is found.

Westvaco is an equal opportunity employer, m/f.

#### The University of Chicago Department of Chemistry has immediate openings for

#### Three Instrumentation Specialists.

- (1) NMR Facility Manager. The Department has several Bruker instruments (DMX-500, DRX-500, two DRX-400, DMX 300). The manager is responsible for maintaining the instruments, training students to use the instruments, implementing new/advanced experiments, supervising an electronics technician and setting policies for efficient operation of the NMR facility. Candidates should have a Ph.D. in Chemistry, Physics or a related area with an emphasis on NMR, extensive experience in modern NMR methods including multidimensional, gradient and solids NMR methods, experience with electronics, familiarity with relevant computer software and managerial skills.
- (2) Mass Spectrometry Facility Manager. The Department is in the process of significantly upgrading the mass spectrometry facility. The manager is responsible for providing technical expertise for instrument purchases, maintaining and operating the instruments, training students to use the instruments, implementing new/advanced experiments, supervising an electronics technician and setting policies for efficient operation of the mass spectrometry facility. Candidates should have a Ph.D. in Chemistry, Physics or a related area with an emphasis on mass spectrometry, extensive experience in modern mass spectrometry methods including high resolution, GC-MS, electrospray and MALDI-TOF, experience with electronics, familiarity with relevant computer software and managerial skills.
- (3) Instrument Specialist. The specialist is responsible for maintenance of analytical instruments, including high field NMR spectrometers, mass spectrometers, X-ray diffractometers, FT-IR spectrometers and a variety of smaller instruments. The specialist will be supervised by Ph.D. scientists and will be responsible for routine preventive maintenance, trouble shooting and repairing of the instruments, periodic assessment of instrument performance using reference standards, providing routine sample analyses, and maintaining an inventory of parts and supplies. Candidates should have a B.S. or M.S. in Electrical Engineering, Physics or a related area or equivalent experience, experience in maintenance and repair of modern scientific instruments, and strong electronics and computer skills.

Candidates for all three positions should send a vita and arrange to have three letters of recommendation sent to Chairman, Department of Chemistry, The University of Chicago, 5735 S. Ellis Avenue, Chicago, IL 60637 by 12/28/99. An Equal Opportunity/Affirmative Action Employer.

#### LIZ CLAIBORNE ART ORTENBERG FOUNDATION PROGRAM OFFICER

SEARCH CONTINUED

The Liz Claiborne and Art Ortenberg Foundation announces its continuing search for a program officer, reporting to the program director. The Foundation was established in 1984 as a family foundation dedicated to the survival of wildlife, wildlands and the human communities that share space with them. The Foundation and its trustees take active leadership in defining conservation issues and shaping the projects that the Foundation supports around the world.

The program officer's responsibilities will include professional assessment of grant proposals, monitoring and analyzing current field programs, generating ideas for new approaches and new programs, and brokering partnerships with other conservation organizations. The program officer will also work directly with the trustees and the advisory board. Travel is expected.

Qualifications for the position include a strong commitment to the Foundation's mission and strategies, a field-based research background and knowledge of regional environmental issues and the organizations and individuals capable of addressing them effectively. Organizational skills, an aptitude for disciplined analysis of written materials, and a rigorous sense of objectivity are fundamentals and the position requires a strong background in biology or other relevant science or social science discipline. Latin America is likely to be a major focus of future support; the new program officer should have expertise in this area. Maturity, resilience, flexibility and intellectual sophistication are essentials, and the position requires someone who works comfortably with colleagues in a collaborative environment.

The position, which is based in New York City, is available immediately. The salary range is \$50,000 to \$75,000, but will be adjusted depending on experience and qualifications. Health benefits and life insurance are paid for by the Foundation. Applications and letters of nomination should be directed to Jean A. Dowdall, Ph.D., c/o Elizabeth Moseley, Consultant, by phone (703-739-4725) fax (520-395-1510), e-mail (elizabeth\_moseley@atkearney.com), or mail (A.T. Kearney Executive Search, 333 John Carlyle Street, Alexandria, VA 22314). Candidates should provide a resume, the names of five references, and a cover letter describing their interest in the position. For fullest consideration, materials should be received by December 10, although the position will remain open until it is filled.

The Liz Claiborne and Art Ortenberg Foundation is an Equal Opportunity Employer

## ST. THOMAS



Five Year Limited Term Position in General Chemistry and Biochemistry The University of St. Thomas

The Department of Chemistry at the University of St. Thomas invites applications for a full-time limited term position renewable each year for up to a maximum of five years, beginning September 2000.

Responsibilities: Teaching biochemistry and general chemistry including laboratories. Opportunities to do research with undergraduates will be available, including cooperative research with members of the Department of Biology.

Qualifications: Ph.D. in biochemistry with a bachelor's degree in chemistry or biochemistry. Previous teaching experience in both biochemistry and general chemistry is preferred.

The University of St Thomas has a well-equipped chemistry department with nine full-time faculty members, several of whom are actively engaged in undergraduate research. The department is housed in a new science building. The University is an urban Catholic institution with approximately 5000 undergraduates located in St Paul, MN. The University of St Thomas is an AA/EO employer and encourages minority and women applicants.

The deadline for the receipt of all materials listed below is January 15, 2000. Candidates for the position should send a cover letter (refer to #200655), curriculum vitae, and a brief statement of teaching philosophy, to the address below. They should also arrange for three letters of reference to be sent to:

Ms Kathey Goodwin
OSS 402 University of St Thomas
2115 Summit Avenue
St Paul MN 55105-1089

No electronic applications will be accepted.

#### LABORATORY OF HUMAN BACTERIAL PATHOGENESIS

#### **Employment Opportunities**

The Laboratory of Human Bacterial Pathogenesis (LHBP) at the National Institute of Allergy and Infectious Diseases, National Institutes of Health is currently recruiting for five tenure/tenure track scientists. The laboratory is located at the Rocky Mountain Laboratories in the scenic Bitterroot Valley in Hamilton, Montana. The LHBP is an interdisciplinary group exploring fundamental molecular processes of host-pathogen interaction. Research in this new laboratory is primarily concerned with the molecular basis of pathogenesis of the following bacteria: Group A Streptococcus, Mycobacterium tuberculosis, Borrelia species, Yersinia pestis, and Neisseria gonorrhoeae (see http://www.niaid.nih.gov/dir/labs/lmsf.htm). Research opportunities are being significantly expanded in the area of group A Streptococcus, Mycobacterium tuberculosis, and Staphylococcus aureus. However, exceptional candidates working in other areas of human bacterial pathogenesis will also be considered and are encouraged to apply.

Individuals selected for a tenure track position are expected to build a dynamic and productive research group. Applicants for tenured positions must have an international reputation and well-documented evidence of ongoing independent accomplishments. Laboratory facilities, start-up and sustained research funds, and salary will be competitive with premier academic institutions. The facility is undergoing significant scientific expansion. Facilities are available for state-of-the-art genomic analysis; electron and confocal microscopy, and other imaging techniques; biosafety level-3 pathogen research; and a vivarium that includes non-human primate research capabilities. Other scientific interests of investigators at this facility include chlamydia (http://www.niaid.nih.gov/dir/labs/licp.htm) and persistent viral diseases (http://www.niaid.nih.gov/dir/labs/lpvd.htm).

#### 2 Positions in the Pathogen Molecular Genetics Section

We seek tenure/tenure-track scientists whose research efforts focus on the molecular biology of host-pathogen interactions in group A *Streptococcus*, *Mycobacterium tuberculosis*, or *Staphylococcus aureus*. Individuals using contemporary molecular genetic approaches to investigate host-pathogen interactions or identify novel mechanisms to control these pathogens are especially sought. Please direct programmatic inquires to: Dr. James M. Musser, Chief, LHBP by e-mail: jmusser@niaid.nih.gov

#### 2 Positions in the Genome-Scale Functional Investigation Section

We seek tenure/tenure-track scientists whose research efforts focus on genome-scale analysis of group A *Streptococcus*, *Mycobacterium tuberculosis*, or *Staphylococcus aureus*. Individuals using DNA array, proteomics, or large-scale gene expression strategies to investigate host-pathogen interactions are especially, although not solely, sought. Please direct programmatic inquires to: Dr. James M. Musser, Chief, LHBP by e-mail: imusser@niaid.nih.gov

#### Position in the Pathogen-Vector Molecular Interaction Section

We seek a scientist whose research complements ongoing work in the Laboratory of Human Bacterial Pathogenesis and focuses on the molecular basis of pathogen-vector or host-pathogen interaction, broadly defined, in *Borrelia* species or *Yersinia pestis*. However, exceptional candidates working on other important human bacterial pathogens with an arthropod host will also be considered and are encouraged to apply. Please direct programmatic inquires to: Dr. James M. Musser, Chief, LHBP by e-mail: jmusser@niaid.nih.gov

APPLICATION PROCESS: Applicants must be U.S. citizens, resident aliens, or nonresident aliens with or eligible to obtain a valid employment authorized visa. Salary depends on degree and qualifications. Salary up to \$151,800 per annum. Other incentives may be available. A curriculum vitae, bibliography, three letters of reference, a detailed statement of research interests and selected publications must be submitted by January 31, 2000 to: Ms. Kim Tran, Office of Human Resources Management, NIAID, Building 31, Room 7A27; 31 Center Drive, MSC 2520, Bethesda, Maryland, 20892-2520. Applicants interested in applying for more than one discipline must submit a complete package for each and cite the vacancy announcement number and scientific opportunity. The vacancy announcement numbers are: AI-99-201 for Pathogen Molecular Genetics, AI-99-202 for Genome-Scale Functional Investigation, and AI-99-203 for Pathogen-Vector Molecular Interaction. All information provided by applicants will remain confidential and will only be viewed by authorized officials of the NIAID.

NIH is an Equal Opportunity Employer

#### Oregon State University Tenure Track Position

The College of Oceanic & Atmospheric Sciences (COAS) at Oregon State University announces the availability of a tenure track position in bio-optical oceanography at the Assistant/Associate Professor level. The appointee will be expected to develop and maintain a vigorous, externally funded research program, to interact with faculty colleagues and graduate students, and to participate in the teaching program of COAS.

Essential qualifications include a Ph.D. in oceanography or a closely related field, a record of significant and exciting research, and the demonstrated ability to attract external funding. Applicants should have a strong background in the interaction of optical and biological processes. Research interests may include laboratory and field bio-optical investigations, including consideration of the physical processes that alter the distributions of particulate matter in the upper ocean which influence bio-optical properties. It is desirable that candidates possess experience with optical instruments and measurement. These may include laboratory, in situ or remotely sensed measurements. An interest in exploring new techniques to understand biological and bio-optical processes is desirable. Salary will be commensurate with qualifications. Starting date is anticipated to be Summer 2000, but is negotiable.

COAS is one of the leading oceanographic graduate research institutions in the country with more than 200 faculty and staff, and a wide variety of oceanographic facilities, including excellent computing facilities, modern analytical laboratories, and two research vessels. OSU is located in an area known for its beauty and quality of life. For more information about the College, OSU, Corvallis, and the environment please consult our web page at <a href="http://www.oce.orst.edu">http://www.oce.orst.edu</a>.

Applications should consist of a letter of interest referencing position 005-493, a current curriculum vitae that includes a description of current research interests, funding history, a list of publications, and the names and addresses of at least three references to: G. Brent Dalrymple, Dean, College Of Oceanic & Atmospheric Sciences, Oregon State University, 104 Ocean Admin Bldg, Corvallis, Or 97331-5503. For full consideration apply by 15 February 2000. Position will be opened until filled. Inquiries about the position may be directed to Dr. Mark Abbott by phone (541-737-4045), electronic mail (mabbott@oce.orst.edu) or by FAX (541-737-2064). OSU is an AA/EEO employer and has a policy of being responsive to the needs of dual career couples.

#### FACULTY POSITION

Applications are invited for a faculty position in the Department of Vascular Biology. The successful candidate will have productive postdoctoral experience, be able to establish an independent basic research program that complements existing departmental programs, the ability to serve as a mentor to graduate students through a program with nearby George Washington University, and obtain external grant support after an initial internal support period. An excellent start-up package and modern laboratory space is available to establish an active research program. The theme of the department broadly relates to the area of vascular biology. The specific research area of the candidate is not as important as the quality of the science. Applicants should send a curriculum vitae, a brief statement of research interests, and three letters of recommendation to:



Vascular Biology Search Committee, Dept. of Vascular Biology, Holland Laboratory, American Red Cross, 15601 Crabbs Branch Way, Rockville, MD 20855. EOE, M/F/D/V.

American Red Cross



# Postdoctoral position to study mechanisms of erythroid cell differentiation

A postdoctoral position is available for NIH/NCI supported projects in two areas related to erythroid cell differentiation; 1) the transcriptional regulation of globin gene expression, and 2) erythropoiesis in the Friend virus erythroleukemia model. The former will address the role of the locus control region, specifically Nfe2 binding sites, in high-level globin gene expression (Blood 91:3459-3466, 1998). The latter will address the role of the stem cell kinase receptor (the Fv2 locus) in erythropoiesis and erythropoietin receptor signaling (Nature Genet. 23:159-165, 1999). Support is available through the Transgenic Core Facility, and the Department of Biochemistry, chaired by James Ihle. This is an excellent opportunity to apply modern techniques, with an emphasis on murine models, towards understanding one of the most specialized cell types in the human body. Candidates should have experience in molecular biology or biochemistry. Experience with transgenic mice is desirable. Please send a C.V., a statement of research interests, and three letters of recommendation to: Paul Ney, Department of Blochemistry, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105. E-mail: paul.ney@stjude.org An Equal Opportunity/ Affirmative Action Employer.

Laborato

## Work at the forefront.

Science Applications International Corporation (SAIC), through its subsidiary SAIC Frederick, is seeking leadership for a laboratory effort to test natural products and new chemical compounds for antibacterial activity. SAIC Frederick is seeking a candidate with one of the following skill-sets listed to run a high throughput screen of NCI's repository of natural products and other chemical libraries to discover candidate compounds effective against drug resistant bacteria:

Microbiologist I

(Post Doctorate/Fellowship MD/PhD)

Must have training in microbiology, medicinal chemistry or pharmacology. Experience with studies of drug resistance (bacterial including mycobacteria) and high-throughput screening of natural products is preferred.

Microbiologist II

Must have 5-10 years of experience or a background as a clinical or industrial microbiologist with experience in drug discovery work, and special expertise in high-throughput screening and/or antimicrobial drug resistance.

This position supports a Cooperative Research and Development Agreement (CRADA) between SAIC and the National Cancer Institute (NCI) and reports to the president of SAIC Frederick. The incumbent will participate in programmatic decisions as a member of the CRADA Executive Committee and work closely with other scientists and technicians using newly established high-throughput screening technology within the Developmental Therapeutics Program.

At Science Applications International Corporation, we believe people are our greatest resource. If you desire to be part of an organization that is rapidly driving the future of science, send your resume, to: SAIC Frederick, Human Resources, PO Box B, Frederick, MD 21702-1201; or e-mail: HR@mail.ncifcrf.gov

"We value cultural diversity in the workplace." Visit our Web site at: http://saic.ncifcrf.gov



EOE

M/F/D/V



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financial assistance
is available for
many programs!

2000 Course Offerings

#### Modeling of Biological Systems

(March 25 - May 4, 2000)

Director: Robert Silver, Marine Biological Laboratory

#### Analytical and Quantitative Light Microscopy

(May 4 - May 12, 2000)

Directors: Greenfield Sluder and David Wolf, University of Massachusetts

Medical Center, Worcester

#### Rapid Electrochemical Measurements in Biological

**Systems** (May 11 – May 15, 2000) Director: Greg Gerhardt, University of Kentucky

#### Microinjection Techniques in Cell Biology

(May 16 - May 23, 2000)

Director: Robert Silver, Marine Biological Laboratory

#### Frontiers in Reproduction: Molecular and Cellular Concepts and Applications (May 21 – July 1, 2000)

Directors: Joan Hunt, University of Kansas Medical Center; Kelly Mayo, Northwestern University; and Gerald Schatten, Oregon Health Sciences University

#### Medical Informatics — sponsored by the National Library of Medicine

(May 28 - June 3, 2000)

Director: Daniel Masys, University of California, San Diego

#### Biology of Parasitism: Modern Approaches

(June 8 - August 11, 2000)

Directors: Edward Pearce, Cornell University; and Christian Tschudi, Yale

University

#### Microbial Diversity

(June 11 - July 27, 2000)

Directors: Caroline Harwood, University of Iowa; and Alfred Spormann, Stanford University

#### Neural Systems & Behavior

(June 11 - August 4, 2000)

Directors: Catherine Carr, University of Maryland; and Richard Levine,

University of Arizona

#### Neurobiology

(June 11 - August 12, 2000)

Directors: Donald Faber, Albert Einstein College of Medicine; and Jeff Lichtman, Washington University School of Medicine

#### Physiology: The Blochemical & Molecular Basis of

**Cell Signaling** (June 11 – July 22, 2000)

Directors: David Garbers, University of Texas Southwestern Medical Center, Dallas; and Randall Reed, Johns Hopkins University School of Medicine

#### Embryology: Concepts and Techniques in Modern

Developmental Biology (June 18 – July 29, 2000)

Directors: Marianne Bronner-Fraser and Scott Fraser, California Institute of Technology

#### Summer Program in Neuroscience, Ethics, and Survival (SPINES)

(June 10 - July 8, 2000)

Directors: Joe Martinez, University of Texas, San Antonio; and James Townsel,

Meharry Medical College

#### Methods in Computational Neuroscience

(July 30 - August 26, 2000)

Directors: William Bialek and Rob de Ruyter van Steveninck, NEC Research Institute

#### Workshop on Molecular Evolution

(July 30 - August 11, 2000)

Director: Michael Cummings, Marine Biological Laboratory

#### Molecular Biology of Aging — sponsored by the Ellison Medical Foundation

(August 1 - August 18, 2000)

Directors: Leonard Guarente, Massachusetts Institute of Technology; and Douglas

Wallace, Emory University

#### Molecular Mycology: Current Approaches to Fungal

Pathogenesis (August 7 – August 25, 2000)

Directors: Aaron Mitchell, Columbia University; P.T. Magee, University of

Minnesota; and John Edwards, Harbor-UCLA Medical Center

#### Fundamental Issues in Vision Research — sponsored by the National Eye

Institute (August 13 - August 25, 2000)

Director: David Papermaster, University of Connecticut Health Center

#### Neural Development & Genetics of Zebrafish

(August 13 - August 26, 2000)

Directors: John Dowling, Harvard University; and Nancy Hopkins, Massachusetts

Institute of Technology

#### Neurobiology & Development of the Leech

(August 13 - September 1, 2000)

Directors: Ron Calabrese, Emory University; Christie Sahley, Purdue University;

and Martin Shankland, University of Texas, Austin

#### Medical Informatics — sponsored by the National Library of Medicine

(October 1 – October 7, 2000)

Director: James Cimino, Columbia University

#### Optical Microscopy and Imaging in the Biomedical

Sciences (October 11 – October 19, 2000)

Director: Colin Izzard, State University of New York, Albany

#### VISIT COURSES.MBL.EDU FOR DETAILS!

For further information, contact:

Carol Hamel, Admissions Coordinator / Marine Biological Laboratory / 7 MBL Street, Woods Hole, MA 02543 email: admissions@mbl.edu / phone: 508-289-7401

### Opportunities in Allergy/Immunology

At Schering-Plough Research Institute, our scientists are discovering innovative therapeutic agents that challenge humankind's most debilitating diseases. And we're doing it at our Kenilworth, NJ state-of-the-art research campus where you can enjoy the benefits and prestige of working for a global leader. Join us now as we shape the future of pharmaceutical innovation.

#### **PhD Pathologist**

You will lead a group providing pathology support for a functional genomics effort. DVM/VMD or equivalent with PhD and board eligibility or certification plus a minimum of 2 years experience required. A strong academic record and expertise in murine models of disease are required. **Job Code: XHXDD9118** 

#### PhD Postdoctoral Scientists - Pulmonary Pharmacology

Focusing on elucidating the contribution of nasal circulation in upper airway obstructive diseases, the successful candidate will set up and conduct in vitm and in vivo studies essential to the continued progress of nasal congestion and histamine H3 projects. Applicants should have 1-2 years' experience and a background in Pulmonary Pharmacology and Physiology and a PhD with a proven ability with in vitm and in vivo models of allergic nasal and/or airway obstructive disease for a postdoctoral position in our research group. Job Code: XHXTM99304

#### **BS/MS Research Associate - Genomic Cloning**

Position is responsible for providing genomic cloning, sequencing, targeting vector and transgenic cloning support to the group. BS/MSc with 2-5 years of experience in molecular biology/cloning is needed to join our cloning team. Strong organizational skills as well as extensive experience with cloning and general computer software are required. Job Code: XHXDD9144

#### BS/MS Research Associate -Inflammation/Autoimmune Disease

Participating in projects directed toward discovery of potential therapeutics for autoimmune diseases such as arthritis, psoriasis, multiple sclerosis an inflammatory bowel disease, particular emphasis will be given to characterizing and profiling the *in vitro* and *in vivo* biological activities of drug candidates. Qualifications include a BS or MS in Immunology or a related discipline with experience in isolating and characterizing lymphocytes and macrophages, tissue culture (e.g., establishing and maintaining cultures of primary murine and human cells), flow cytometry, immunohistochemistry, histology and general immunological methodology (e.g., cytokine ELISAs and cell proliferation assays). Experience in conducting in vivo models of autoimmune disease, infectious disease and tumor growth is required; training in molecular biology is helpful. **Job Code: XHXDD9129** 

#### BS/MS Research Associate - Flow Cytometry

Will prep and analyze multiple tissue samples by Flow Cytometry. BS/MSc with 2-5 years of experience in Flow Cytometry required. Experience with *in vivo* models and in Molecular Biology techniques is a plus. **Job Code: XHXDD9958** 

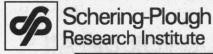
#### BS/MS Research Associate - Histology

The ideal candidate will have a BS or MS in Biology or related field, and a minimum of 2 years experience in histological techniques, including tissue processing, tissue sectioning with microtome and cryostat, immunohistochemistry and in situ hybridization. Experience in special staining, computer assisted imaging analysis, confocal imaging analysis and in situ receptor binding would be a plus. Job Code: XHXDD9148

#### For additional information or to apply online visit our web site at www.sp-research.com

We offer an excellent compensation package that includes a competitive salary, a cash incentive bonus program, comprehensive benefits, profit sharing and 401(k). Competitive benefits include: group insurance and retirement programs, flexible work arrangements, education assistance, and health and wellness programs.

For prompt, confidential consideration, we invite you to forward your resume which MUST include the Job Code for your position of interest to: **E-mail: sprisc@isearch.com or send to: Human Resources-SC, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-1300.** We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.



Using Science for Human Advantage

#### **DEPUTY EDITOR**

Physiological Genomics, a new research journal published by The American Physiological Society, has an immediate need for a Deputy Editor to be based in Boston, Massachusetts. Responsibilites include:

- recruitment of articles through direct contact with the scientific community
- writing of research commentaries
- coordinating the receipt and review of manuscripts
- close coordination with authors, editors, and publisher
- representation of the journal at scientific meetings

The ideal candidate will possess an advanced degree in the biomedical sciences or science journalism or closely related discipline, 2-6 years related work experience, excellent writing skills to communicate complex concepts clearly, and strong editorial and interpersonal skills.

Brigham and Women's Hospital/ Harvard University and The American Physiological Society offer an outstanding compensation and benefits package. Please forward your resume, writing sample, and salary requirements to:

Dr. Victor Dzau, Editor-in-Chief *Physiological Genomics*c/o The American Physiological Society
Publications Department
9650 Rockville Pike, Bethesda, MD
20814-3991

FOF

## LABORATORY DIRECTOR

A Midwest corporation is establishing a specialized, technically sophisticated analytical service for support of drug exploration and development, with initial emphasis on ELISAs. The ideal lab director will be a strong manager with technical proficiency, having experience with GLP, GMP, drug development and FDA regulatory issues. Ability and experience are more important than specific educational achievement, but a PhD in Analytical Biochemistry or a Bio-medical discipline, ABCC/ NRCC certification and CLIA experience would each be a plus. The successful candidate will establish and maintain a highly professional laboratory with GLP/GMP documentation, will oversee the entire analytical process from preparation of protocols to sample receipt to data transmission and will interact with Pharmaceutical companies regarding their analytical needs.

This position is an opportunity for a skilled and industrious person to initiate a major new business venture by a rapidly growing Biotech company. Salary and benefits are excellent in a location that offers an outstanding quality of life, whether your preference is for the arts or year-around outdoor sports.

Interested applicants should submit a resume to:

PO Box 18568 Minneapolis, MN 55418-0568

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## DIVISION OF DIABETES, ENDOCRINOLOGY AND METABOLIC DISEASES, NIDDK NIH HEALTH SCIENCE ADMINISTRATION POSITIONS

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is seeking scientists (Ph.D. or equivalent) for two health science administration positions: Director, Research Training and Careers Program and Director, Functional Genomics and Bioinformatics Program. These positions are located in the Division of Diabetes, Endocrinology and Metabolic Diseases. They require a broad scientific background relevant to diabetes, endocrinology, and metabolic diseases; independent research experience; excellent interpersonal and written communications skills; the ability to identify research priorities and opportunities; and the ability to track and analyze the success of initiatives and programs. Both positions involve scientific administration of research grants; program planning and development; attendance at scientific meetings; and the opportunity to organize scientific meetings.

#### DIRECTOR, RESEARCH TRAINING AND CAREERS PROGRAM

The NIDDK is strongly committed to increasing the number of well-trained, highly motivated and innovative investigators in diabetes, endocrinology and metabolic disease research and has recently substantially expanded the training and career mechanisms available to accomplish this goal. The Director Research Training and Careers Program will disseminate information about training and career opportunities and interact closely with new investigators during their training and emergence as newly independent investigators and with the leading researchers who serve as their mentors. Applicants should have experience mentoring new investigators.

#### **DIRECTOR, FUNCTIONAL GENOMICS AND BIOINFORMATICS**

The rapid pace of scientific discovery and the development of new technologies, such as genome-wide expression profiling, have increased the need for scientific resources to manage the increased flow of information. The Director, Functional Genomics and Bioinformatics Program should have expertise in areas such as molecular biology, bioinformatics, genomics, and statistics and should provide leadership in developing the resources that will be needed by investigators utilizing these new technologies.

These positions are available in early 2000 at a salary range of \$58,027 to \$89,142 per annum (GS-13/14) depending on qualifications. The salary range does not include an estimated 5 percent Federal pay increase effective in January 2000.

The vacancy announcements and related qualification information can be obtained by calling (301) 496-4231. For FAX delivery call (301)594-2953 or 1-800-728-5627 and request FAX ID 3267 for the Research Training and Careers Program Director of FAX ID 3275 for the Functional Genomics and Bioinformatics Program Director. This information is also available from the NIDDK online vacancy listing and electronic employment application at http://ohrm.niddk.nih.gov/employment.html. An overview of areas of science encompassed within the Division, initiatives to expand research, and the mechanisms for research project and training and career support that are currently offered can be found at http://www.ep.niddk.nih.gov/divisions/dem/demhome.htm.

The deadline for applications is January 31, 2000. Submit a CV, bibliography, and supplemental qualifications statement to:

Mr. Ronald Sleyo
Office of Human Resource Management
NIDDK, NIH
Building 31, Rm. 9A34
31 Center Drive MSC 2560
Bethesda, MD 20892-2590
Email: sleyor@hq.niddk.nih.gov

U.S. Citizenship is Required
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Mail: 10975 Torreyana Road

San Diego, CA 92121-1106 USA

Attn: Fax: Human Resources (858) 812-8893

Email: hr@pharmingen.com

#### PROGRAM MANAGER - IMMUNOPATHOLOGY, R&D-IMMUNOPATHOLOGY (#503)

Ph.D. degree in a scientific discipline or M.D. degree w/minimum 3-5 years lab experience in immunopathology required, including experience w/histology, immunology, IHC techniques, immunofluorescence, paraffin frozen sectioning, & recognition of tissue structures. Previous related industry experience preferred. Responsibilities include developing & managing all aspects of Immunopathology product line, working in collaboration with marketing department to develop & implement marketing strategy, organizing & prioritizing service work for internal & external units, managing Immunopathology product release/launch process, & developing & administering revenue budgets, schedules & performance requirements. Must have good documentation, data management, organizational & communication skills.

#### **SCIENTIST I- IMMUNOPATHOLOGY (#504)**

Ph.D. in scientific discipline or M.D. w/minimum 1-4 years experience in an R&D environment or post-doctoral experience required. Previous related industry experience preferred. Responsibilities include developing new products using molecular probes & other immunopathology techniques/applications. Must demonstrate proficiency in technical abilities, collaboration with others & independent thought. Experience with tissue sectioning, reading tissue slides, microscopy, tissue processing, frozen & paraffin & all IHC techniques is required. In-situ hybridization, FISH & PCR in-situ amplification techniques preferred. Must have good documentation, organization & communication skills.

#### SCIENTIST I, EMERGING TECHNOLOGY & MOLECULAR BIOLOGY (#577 & #578)

Minimum 1 to 4 years post-doctoral or industrial experience including background in RT-PCR, cloning and protein expression required. Experience with gene expression analysis and familiarity with public gene database use highly desired. Responsibilities include molecular technology product development and validation. Must be able to work independently within a team environment. Must have good documentation, organization & communication skills. Ph.D. in Molecular Biology or related science is required. (Two positions available)

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At PE Biosystems, we're making some of the biggest breakthroughs in science happen by creating products and instruments that change the way researchers identify and analyze the building blocks of life. In just the last year, genes for breast cancer, skin cancer, Alzheimer's disease and hypertension have been identified by dedicated professionals using PE Biosystems instrumentation, reagents and software. We currently have the following opportunities available at our facilities just south of San Francisco.

#### SCIENTIST II/III/SENIOR

**Molecular Diagnostics** 

As a key porticipant in the development of a diagnostic HIV genotyping kit, you will be responsible for optimization experiments for sample prep, RT-PCR reactions and sequencing reactions of clinical specimens infected with HIV. You must possess the knowledge and skills normally acquired through the completion of a BS/MS/PhD in Moleculor Biology. Experience in RT-PCR, DNA sequencing and RNA manipulations is highly desired, as is industrial experience developing diagnostic applications. Excellent written and verbal communication skills are also needed. Job Code XHX10481

#### **SENIOR PRODUCT SPECIALIST**

**Genetic Analysis** 

As the Senior Product Specialist for fluorescent fragment analysis products, you will porticipate in product development teams, provide input for technical and marketing product specifications, and train field-sales and in-house personnel. Your BS/MS in Molecular Biology or related field must be supported by experience with DNA analysis techniques and instruments, and excellent collaborative, interpersonal, public-presentation and written and verbal communication skills. Experience in direct sales, applications or customer support is desired, as is laboratory experience. Travel required up to 25%. Job Code XHX12508

#### SENIOR PRODUCT SPECIALIST Genetic Analysis Software

Responsible for product morketing mointenance activities for existing opplications, you will work with software development teams on upgrades, new products transition ond general improvements. In addition, you will provide technical and marketing training to field application specialists and in-house personnel, and provide market and competitor information. You must have a BS in Moleculor Biology or Computer Science with an emphasis in biology, as well as experience in application, customer support or biological-product development, and excellent collaboration and written communication skills (public-speaking abilities are a plus). Experience with PE Biosystems systems and/or software is desirable. Up to 25% trovel may be required. Job Code XHX12509

#### ASSOCIATE PRODUCT MANAGER Genetic Analysis

Utilize your morketing knowledge to identify, evaluate and participate in product strategy development in polymorphism detection validation. Your duties will include interfacing with market contacts, representing PE Biosystems at trade shows and conferences, and participating in product development teams. To qualify, you must possess a BS in Biology, Genetics or a related field, 3-5 years marketing experience (strategy focus preferred), and excellent written and verbal communication skills. An MBA is desired, as is experience with PE Biosystems instrumentation and markets. This position requires domestic and international travel up to 25%. Job Code XHX12504

Located in Foster City, we offer a competitive salary and benefits package with advoncement potential for your career. For consideration, please send your resume, indicating appropriate Job Code, to: PE Biosystems, Human Resources Department, 850 Lincoln Centre Drive, Foster City, CA 94404. You may also fax to 650/554-2894, or email us at pecorpad@resume.isearch.com. PE Biosystems is on equal apportunity employer.

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#### Research Associate

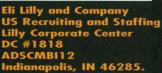
The Oncology group is seeking a BS/MS scientist with research experience studying cell-signaling pathways and a strong interest in applying this ability to novel drug development. The successful candidate will be a cell and molecular biologist with a broad based knowledge of standard molecular biology techniques, e.g. manipulating DNA and RNA, cloning, PCR and RT-PCR and expertise in cell biology techniques including establishment and maintenance of primary and stable cell lines and some light microscopy. Additional experience in protein purification and biochemistry are also highly desired. The scientist will function in a team environment where data analysis and presentation

Postdoctoral fellowships to study the role of Raf, PI 3-kinase and Ral in Ras-dependent oncogenic transformation

Two post-doctoral positions are available in the laboratory of Mark Marshall to study the functional contributions of Raf, Pl3 kinase and Ral in Ras-dependent tumor cells, the role of the Pak serine/threonine kinases in proliferative disease, and crosstalk between the Ras/Pl3-kinase and Ras/Raf signaling pathways. (Ref. International Journal of Oncology, 15:271-279; Nature, 396:180-183, 1998; Oncogene, 17:1539-1547, 1998; Mol. Cell. Biol., 17:4509-4516, 1997). Qualified candidates should be able to work independently and have a strong background in molecular biology and biochemistry. Rapid publication of results is encouraged. Generous financial benefits are provided. Please forward a curriculum vitae and names and telephone numbers of three references to the address below.

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#### ASSISTANT PROFESSOR OF AQUATIC ECOLOGY

Duke University's Nicholas School of the Environment is searching for an individual with interest and expertise in aquatic ecology (freshwater or estuarine) for a tenure track position at the assistant professor level. The successful candidate will be expected to develop a nationally recognized research program, provide courses and advise students in the school's undergraduate, professional master's and doctoral programs.

Major opportunities exist for collaboration within the school, university and with other universities and agencies in the state. Current areas of expertise in the school include aquatic and watershed resources, freshwater/marine ecology, hydrology, conservation biology, atmospheric sciences, ecotoxicology and wet-

The specific research focus of the candidate is open, but we are most interested in strong, process-oriented research that has applications at the population, community or ecosystem level. Possible research areas include (but are not limited to): macroinvertebrate ecology, microbial ecology, paleoecology, biogeochemical cycling and transport processes.

For full consideration, applicants must submit a statement of interest, curriculum vitae, graduate transcripts and names of three reference letters by January 15, 2000, to: Aquatic Ecology Search Committee, Nicholas School of the Environment, Duke University, Box 90328, Durham, North Carolina 27708-0328

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www.env.duke.edu

#### RESEARCH/STAFF **SCIENTIST**

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Working to support the development of novel transdermal drug delivery devices, you will set up PBPK in vivo and in vitro models, design and perform experiments, provide direction to biologists, interact with many scientists from other disciplines, present data and write reports. Qualifications include a PhD in physiologically based Pharmacokinetics or related discipline and 1-3 years postdoctoral experience. Strong surgical skills and experience with skin and drug delivery systems are a plus.

Please send resume to ALZA Corporation, HR Dept, Job Code SCI99-470-GS, 1900 Charleston Road, PO Box 7210, Mountain View, CA 94039-7210; fax: (650)

564-5656; email: jobs@alza.com (ASCII files only); Job Hotline: (650) 564-5319. Our hiring managers will review all qualified resumes. ALZA is proud to be an EOE.



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Cell Biology - Broad experience with cell culture operations including asceptic technique, cryopreservation, tissue culture media development and cell safety testing required.

Bacteriology - Established skills in characterizing bacteria and viruses using both classical and molecular techniques, as well as experience propogating adherent and non-adherent cells. Familiarity with production under Biosafety 2 and 3 environments preferred.

Molecular Biology - Strong molecular biology background including established skills in a variety of molecular biology methods including plasmid purification, DNA amplification, DNA sequencing, RNA isolation, reverse transcription of RNA and nucleic acid hybridization desirable. Experience in cell culture, viruses and micro-array technology a plus; experience in process scale-up and laboratory automation is preferred.

Mycology and Protistology - Established skills in genetic resources management such as freezing and freezedrying methods highly desirable.

Positions require M.S. or Ph.D. plus 5 years proven management experience in a laboratory environment as well as excellent interpersonal, organizational, analytical and communication skills. Experience in technology transfer and GLP, GMP or ISO operations a plus. Knowledge and experience with business and scientific computer database systems and business process re-engineering highly desirable. Ideal candidates will be highly motivated, a proponent of change, and be willing to work flexible hours to meet production demands

Interested/qualified candidates should submit cover letter, indicating position and salary requirement, and resume to: ATCC, Attn: HR/TM, 10801 University Boulevard, Manassas, VA 20110-2209. Fax: 703-365-2735. E-mail: employment@ATCC.org Visit our web site at www.atcc.org ATCC

EOE M/F/D/V

# **Biochemis**

The American Health Foundation has an opening for a PhD Biochemist with experience in DNA adduct analytical chemistry and molecular biology. Preference will be given to those having completed the equivalent of a post-doctoral fellowship. Some supervisory experience preferred. Initial research activities will focus on the carcinogenic mechanisms of benzene and acrylonitrile.

The AHF is a National Cancer Institute designated cancer center located 20 miles north of New York City in Valhalla, NY in a suburban setting on a campus shared with the Westchester Medical Center and the New York Medical College.

The successful candidate will be expected to contribute in developing new research initiatives and submitting proposals to government agencies and industrial sponsors for financial support.

We offer a complete salary and benefit package. Please send curriculum vitae and the names of three references to: whysner@aol.com or Dept JW, The American Health Foundation, One Dana Road, Valhalla, New York 10595. For more information about the AHF see: www.ahf.org

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The University of Pittsburgh School of Medicine Graduate Program in Immunology has been awarded a National Cancer Institute Training Grant in Cellular and Molecular Mechanisms of Tumor Rejection. The program provides opportunities for pre-doctoral and post-doctoral trainees to become independent investigators in tumor immunology while working within a larger program of research in basic cellular and molecular immunological mechanisms as well as human disease. The training faculty are:

<u>Mentor</u> Joseph Ahearn, MD Per Basse MD. PhD William Chambers, PhD Albert DeLeo, PhD Louis Falo, Jr., MD, PhD Olivera Finn, PhD JoAnne Flynn, PhD Elieser Gorelik, MD, PhD Robert Hendricks, PhD Chau-Ching Liu, MD, PhD Michael Lotze, MD Susan McCarthy, PhD Christine Milcarek, PhD Ronald Montelaro, PhD Penelope Morel, MD Karen Norris, PhD Russell Salter, PhD Michael Shurin, MD, PhD Walter Storkus, PhD Theresa Whiteside, PhD Timothy Wright, MD, PhD

Xiao-Ming Yin, MD, PhD

Adriana Zeevi, PhD

#### Area of Research Interest

Autoimmunity, innate immunity, immune evasion NK cells, cell trafficking NK cells, immune regulation Tumor immunology APCs, cutaneous immunobiology, vaccine design Tumor antigens, tumor vaccines, T cell activation Immunology and pathogenesis of M. tuberculosis Tumor immunology, angiogenesis Viral immunology, T cells at inflammatory sites Mechanisms of cytotoxicity Tumor immunology, DC biology, cytokine biology Lymphocyte development, CTL, apoptosis lg gene expression, immunological memory HIV and animal lentiviruses, AIDS vaccine development Th1/Th2 regulation, autoimmunity, NK cell biology Immune evasion mechanisms of microbial pathogenesis MHC class I and class II, antigen presentation in DC Antitumor CTL and T helper cells, NK cells DC, apoptosis, tumor microenvironment Angus Thomson, PhD, DSc Transplantation tolerance, DC function

Tumor immunology, tumor microenvironment

Autoimmunity, transcription regulation, genetics

Transplantation immunology, immunogenetics, cytokines

Pre- and post-doctoral candidates with U.S. citizenship or with permanent resident status, interested in joining the program should send a cover letter and CV to one of the listed investigators or to: Dr. O. Finn (PI), W1142 Biomedical Science Tower, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261. University of Pittsburgh is an equal opportunity employer committed to excellence through diversity.

Apoptosis, intracellular signaling

#### Croasdale Fellowship in Biological Sciences Dartmouth College

The Department of Biological Sciences at Dartmouth College seeks qualified applicants for the Hannah T. Croasdale Fellowship in Cell Biology. The Croasdale Fellowship is a two year, non-tenure track position with competitive salary, benefits, and a research stipend. The Croasdale Fellow will teach one undergraduate course during each of two of the four terms in an academic year (two courses per year total) and undertake a postdoctoral research project in affiliation with an established laboratory in the department. We seek a candidate who will teach courses in cell biology, biochemistry, structural biology, or introductory virology.

The successful applicant must have received the Ph.D. or equivalent before beginning the position. In the cover letter, each applicant should identify the laboratory with which he or she would like to be affiliated. Collaborative projects that involve more than one laboratory in the Department of Biological Sciences will also be considered. Descriptions of faculty research interests can be found at http:// www.dartmouth.edu/artsci/biology/index.html. Applicants should send a statement of research interests, teaching interests including a brief description of a potential course, curriculum vitae, representative reprints, and have three letters of recommendation sent to the Croasdale Cell Biology Search, Department of Biological Sciences, Dartmouth College, Hanover, New Hampshire 03755. Consideration of applications will begin on 15 December 1999. Dartmouth College is an Equal Opportunity/Affirmative Action Employer.

# Lilly's HISTORY of innovation

#### Eli Lilly and Company Program in Nuclear **Receptor Research**

Eli Lilly and Company is devoted to the identification of novel nuclear receptor ligands and targets involved in tissue-specific receptor functions. As a proven leader in the area of selective steroid hormone modulators, our newly launched program in nuclear receptor research seeks to become a

major force in the nuclear receptor biology field and represents Lilly's substantial commitment to maintaining excellence in drug therapy development. Lilly's continued success in nuclear receptor research will have significant impacts in women's health, cancer, obesity, as well as endocrine, cardiovascular and central nervous system diseases and disorders.

#### **BS/MS** Research Associates

Research Associate positions are available within the Gene Regulation Research Department for qualified candidates with a BS/MS in biochemistry, molecular biology, physiology or a related discipline and minimally 2 years of laboratory experience. Working knowledge of molecular biology/protein chemistry and tissue culture techniques and experience in assay development is necessary. Extensive experience with cell culture, transfections including generation of stable cell lines, receptor/ligand binding assays and protein purification, is also required. Industrial experience, as well as experience in nuclear receptor pharmacology and/or gene transcription is desirable.

#### Ph.D. Postdoctoral fellow

Postdoctoral fellow positions are available within the Gene Regulation Research Department for individuals with backgrounds in cellular and molecular biology/physiology to investigate nuclear receptor action. A recent Ph.D. in biochemistry, molecular biology, physiology or a related discipline is required. Projects will focus on many aspects of nuclear receptor action including orphan receptor function, coactivator/corepressor action, and tissue specificity of nuclear receptor ligands. Previous experience in endocrinology, cardiovascular biology, nuclear receptor action, or gene transcription is desirable.

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#### POSTDOCTORAL RESEARCH POSITIONS NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES **NATIONAL INSTITUTES OF HEALTH** P.O. BOX 12233, RESEARCH TRIANGLE PARK, NC 27709-2233

Biological Functions and Mechanisms of Action of Nuclear Receptors n Jetten, Ph.D. (jetten@njehs.njh.gov

Calcium Signaling James Putney, Ph.D. (putney@niehs.nih.gov)

cDNA Microarray for Testicular Toxicology Robert Chapin, Ph.D. (chapin@niehs.nih.gov)

Cell Adhesion and Signal Transduction in Tumor Cell Metastasis Kenneth Olden, Ph.D./John Roberts, Ph.D. (roberts1@niehs.nih.gov)

Cyclooxgenases, NSAID's and Cancer pert Langenbach, Ph.D. (langenb1@niehs.nih.gov)

Cytochrome P450 Arachidonic Acid Metabolism Darryl Zeldin, Ph.D./Joyce Goldstein, Ph.D. (zeldin@niehs.nih.gov)

Elcosanoids and Pulmonary Immune Function
Darryl Zeldin, Ph.D./Dori Germolec, Ph.D. (zeldin@niehs.nih.gov)

Functional Consequences of Mitochondrial Nucleic Acid Damage Ben Van Houten, Ph.D. (vanhout1@niehs.nih.gov)

Genetic Regulation of the Human CYP2Cs Joyce Goldstein, Ph.D. (goldste1@niehs.nih.gov)

Ion Channel Physiology Jerrel Yakel, Ph.D. (yakel@niehs.nih.gov)

**Mitochondrial DNA Replication** 

William Copeland, Ph.D. (copelan1@niehs.nih.gov)

Mechanisms by Which Cells Produce Mutations Roel Schaaper, Ph.D. (schaaper@niehs.nih.gov)

Mechanisms of Cell Adhesion and Migration Steven Akiyama, Ph.D. (akiyama@niehs.nih.gov)

Mechanisms of Chemical-Induced Hepatocarcinogenesis Burhan Ghanayem, Ph.D. (ghanayem@niehs.nih.gov)

Molecular Biology Studies on Opioid Receptors Lawrence Lazarus, Ph.D. (lazarus@niehs.nih.gov)

Molecular Neurobiology J.S. Hong, Ph.D. (hong3@niehs.nih.gov)

Molecular and Physiological Mechanisms of Estrogen Hormone Action Kenneth Korach, Ph.D. (korach@niehs.nih.gov)

Nuclear Receptors in Molecular Toxicology Masahiko Negishi, Ph.D. (negishi@niehs.nih.gov)

Pediatric Epidemiology Walter Rogan, M.D. (juras@niehs.nih.gov)

Protein NMR

Robert London, Ph.D. (london@niehs.nih.gov)

Regulation of Signal Transduction Pathways by Adaptor Proteins John O'Bryan, Ph.D. (obryan@niehs.nih.gov)

Role of Maternal Genes in Early Xenopus Development Perry Blackshear, M.D., D.Phil (black009@niehs.nih.gov)

Signal Transduction Events in the Pathogenesis of Pulmonary Fibrosis Jamie Bonner, Ph.D. (bonnerj@niehs.nih.gov)

Stress Induced Signaling Pathways Elizabeth Murphy, Ph.D. (murphy1@niehs.nih.gov)

Structure-Function Studies of Prokaryotic Nucleotide Excision Repair Proteins
Ben Van Houten, Ph.D. (vanhout1@niehs.nih.gov)

Structure-Function Studies of Zinc Finger Proteins
Perry Blackshear, M.D., D. Phil (black009@niehs.nih.gov)

Tissue-Specific Regulation of Lactoferrin Gene Expression at the Molecular Level Christina Teng, Ph.D. (teng@niehs.nih.gov)

Must possess Ph.D., M.D. or equivalent with no more than five years of postdoctoral experience. For further details, access http://www.niehs.nih.gov/vacancy/postdoc.htm. To apply, submit a cover letter, curriculum vitae and the names of three references to the hiring scientist at the above address.

NIH/NIEHS Is An Equal Opportunity Employer

# Cellular Biologists, Molecular Geneticists, Biochemists/ Bioanalytical Chemists, Pre-clinical PK Discovery Support - BS/MS Level

The DuPont Pharmaceuticals Company has several openings and anticipates rapid growth in the year 2000 for exceptional biochemists, cellular biologists, molecular biologists, bioanalytical chemists, and pre-clinical PK Discovery support at the BS and MS level.

DuPont Pharmaceuticals is a world leader in Antimicrobial, HIV/Aids, Cardiovascular, Cancer, CNS, Biotechnology, High Throughput Leads Discovery, and Inflammation research. Our laboratory studies span the range from basic investigations into the molecular mechanisms that underlie disease, to highly focused evaluations of experimental therapeutics.

We are seeking dedicated, creative, and effective scientists to join our team of world-class investigators. Successful applicants for these positions should have a BS or MS degree in one of the biological sciences and three or more years of experience in modern laboratory methods, including expertise in one or more of the following areas: mammalian tissue culture studies, recombinant DNA techniques, protein production, purification and analyses, enzyme assays, receptor binding assays, nstrumental analysis, and bioanalytical chemistry. Excellent communication skills and the ability to work on teams are also required.

DuPont Pharmaceuticals Company offers excellent compensation and benefits packages. To be considered, please email your resume (indicate code SD-AOSC) to: SD-Resumes@dupontpharma.com or mail your resume to DuPont Pharmaceuticals Company, Human Resources-SD-AOSC, E400/2413, P.O. Box 80400, Wilmington, DE 19880. Also, visit our employment page on our website at www.dupontpharma.com. Open positions are updated weekly and resumes can be submitted online. An equal opportunity employer, M/F/D/V.



**DuPont Pharmaceuticals Company** 



### Tenure-Track Faculty Positions



#### **University of Pittsburgh School of Medicine**

University of Pittsburgh School of Medicine has committed to enhance further its Basic Research faculty. We seek several research-oriented individuals to join our well-funded faculty as Assistant or Associate Professors. The desired candidates will have a MD or Ph.D. from any subdiscipline of the Life Sciences including pharmacology, biochemistry, molecular biology and neurobiology. We are especially interested in individuals who will complement our existing strengths in membrane trafficking, ion channels, G-protein mediated signaling, cell death, drug discovery and drug resistance.

Successful candidates will be expected to develop outstanding independent research programs. Very attractive start-up packages have been committed for the successful candidates. Interested applicants should provide a one-page statement on their proposed research, a curriculum vitae, and the names and contact information of three professional references. The application deadline is February 15, 2000. Application should be sent to:

John S. Lazo, Ph.D., Chairman
Department of Pharmacology
University of Pittsburgh, School of Medicine
Chair, Search Committee
W1340 Biomedical Science Tower
Pittsburgh, PA 15261

#### PROFESSOR OF NEUROLOGY AND NEUROBIOLOGY CHILDREN'S HOSPITAL AND HARVARD MEDICAL SCHOOL

Children's Hospital and Harvard Medical School are seeking an individual to serve as Professor in the Departments of Neurology and Neurobiology. In addition to conducting a research program of distinction in the area of developmental neurobiology with an emphasis on the use of an invertebrate genetic system, the candidate will be expected to participate in the Harvard Medical School educational programs for medical students, graduate students and postdoctoral fellows.

Candidates should have a strong record of research and training accomplishments. Interested individuals should send a letter expressing interest in the position and a current CV to:

Michael E. Greenberg, Ph.D.
Chair, ad hoc Search Committee
Professor of Neurology and Neurobiology
Director, Division of Neuroscience
Children's Hospital
300 Longwood Avenue
Boston, Massachusetts 02115

Harvard Medical School is an Equal
Opportunity/Affirmative Action Employer. Women and
minority candidates are encouraged to apply.

HARVARD MEDICAL SCHOOL



#### Tenure Track Faculty Positions in Protein Structure and Function Laboratory of Molecular Biology NIDDK, NIH

Two tenure-track (assistant professor equivalent) faculty positions will be available in the Laboratory of Molecular Biology of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH to start in Fall, 2000. The LMB is a multidisciplinary laboratory similar to an academic department. The LMB emphasizes the integration of structural and molecular approaches to biological questions. Ample laboratory space will be located in the newly constructed state-of-the-art building 50, housing laboratories from several NIH Institutes engaged in x-ray and electron crystallography, cryoelectron microscopy, NMR, mass spectrometry, computational biology, biochemistry, molecular and cell biology, and genetics and genomics. The incumbents will be provided with ample support for the staffing and operation of an independent research group, without the need to obtain external funding. The positions carry no teaching obligations. Applicants should have a doctoral degree and postdoctoral training.

**Protein Structure.** An outstanding structural biologist is sought to pursue a program that emphasizes the **structure determination of integral membrane proteins by x-ray crystallography**. The intramural program of the NIH provides a uniquely stable funding environment for highrisk initiatives in membrane protein structure determination and has recently made a strong commitment to this area. Exceptional candidates using other approaches to study the structure and function of membrane proteins may be considered.

**Protein Function.** An outstanding cell, molecular, or chemical biologist is sought to develop and apply innovative technologies to identify protein function. Technologies of special interest include, but are not limited to, **mass spectrometry** and **proteomics**, **molecular libraries**, high throughput screening and trapping techniques, and **protein engineering**.

Send applications to:

#### Dr. James H. Hurley

Membrane Protein Structure Search Committee or Protein Function Search Committee
Bldg. 5 Rm 324, LMB, NIDDK, NIH
Bethesda, MD 20892-0560

To apply, send cv, summary of proposed research, and arrange for 3 letters of reference to be sent separately no later than **Dec. 31, 1999.**The current LMB faculty are listed at http://www.niddk.nih.gov/intram/branchlb/lmb.htm, and more information on building 50 can be found at http://des.od.nih.gov/building 50/welcome overview.htm.

#### ASSOCIATE/FULL PROFESSOR MOLECULAR BIOLOGIST FLORIDA STATE UNIVERSITY



# TWO TENURE-TRACK FACULTY POSITIONS MOLECULAR/CELLULAR PHYSIOLOGISTS FLORIDA STATE UNIVERSITY

The Program in Medical Sciences and the Department of Biological Science of The Florida State University, in the second year of an ongoing faculty enhancement, invite applications for a senior level, tenure-track, molecular biologist. Individuals using model organisms to address fundamental questions regarding the molecular basis of life processes are particularly encouraged to apply. The successful applicant will solidify a growing cadre of molecular biologists in the Department and complement current research programs that focus on gene expression, development and the cell cycle in plant cells, Drosophila, zebrafish, amphibians and mouse. This position is funded by an ongoing enhancement of medical education at Florida State University. This individual will have the opportunity to play a leadership role in the recruitment of tenure track faculty in molecular biology and participate in the development of a medical school currently pending approval of Florida's Legislature and Board of Regents. State-funded salary and benefits and a generous start-up package commensurate with the experience of the successful candidate will be provided.

We seek an interactive individual with an established record of outstanding research accomplishments to participate in and help direct faculty growth. The successful candidate will participate in the graduate training program of the Department and the teaching of a medical genetics/biochemistry course for firstyear medical students. The Department of Biological Science has extensive fully staffed research support facilities including molecular cloning, DNA sequencing, analytical biochemistry, computing, and confocal and electron microscopy. Associated programs in Structural Biology and the National High Magnetic Field Laboratory offer facilities for oligonucleotide/peptide synthesis. cell culture, NMR and X-ray diffraction facilities. Applicants should send a curriculum vitae, a description of research interests and the names and contact information for three referees to: Molecular Biology Search, Program in Medical Sciences, 104 SCN, The Florida State University, Tallahassee, Florida, 32306-4300. Review of applications will begin on December 21, 1999. Additional information may be found by visiting our web sites at http:// www.fsu.edu/~pims/pims.html and http://www.fsu.edu/~biology/.

The Program in Medical Sciences and the Department of Biological Science of The Florida State University invite applications for two tenure track faculty positions. Outstanding candidates employing innovative cellular or molecular approaches to address contemporary problems in biological research are sought. We are especially interested in candidates whose research complements existing research strengths such as: cell biology and physiology; developmental biology and gene expression; molecular biology and genetics; neuroscience; and evolutionary biology. Successful candidates will have a Ph.D. (or equivalent), postdoctoral research experience, and an outstanding record of research accomplishments, and will be expected to establish an independently funded research program. In addition, candidates must have appropriate experience for teaching systems physiology to first year medical students. These positions are funded by an ongoing expansion of medical education at FSU that, pending approval by the Florida Legislature and Board of Regents, will lead to the development of a medical school. Although we anticipate applicants at the assistant professor level, we encourage exceptionally well-qualified candidates at all levels to apply. Competitive start-up packages and state-funded salary with benefits will be provided.

The Department of Biological Science has extensive fully-staffed research support facilities including molecular cloning, DNA sequencing, analytical biochemistry, computing, and confocal and electron microscopy. Associated programs in Structural Biology and the National High Magnetic Field Laboratory offer facilities for oligonucleotide/peptide synthesis, cell culture, X-ray diffraction, and NMR facilities. Interested individuals should send a curriculum vitae, brief statement of research interests, and the names and addresses of three referees (including FAX and email contact information) to: Physiology Search, Program in Medical Sciences, 104 SCN, The Florida State University, Tallahassee, Florida, 32306-4300. Review of applications will begin December 21, 1999. Additional information may be found by visiting our web sites at <a href="http://www.fsu.edu/~pims/pims.html">http://www.fsu.edu/~pims/pims.html</a> and <a href="http://www.fsu.edu/~pims/pims.html">http://www.fsu.ed

# R

# GORDON RESEARCH CONFERENCES

Conferences at the Frontiers of the Biological, Chemical and Physical Sciences

- The preliminary 2000 Summer GRC schedule will appear in the November 26, 1999 issue of SCIENCE.
- The full 2000 Summer and Fall GRC schedule will appear in the February 18, 2000 issue of SCIENCE.

visit the frontiers of science at:

#### WWW.GRC.URI.EDU

Our web site contains the complete schedule of current and upcoming Conferences.

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#### UNDERGRADUATE

SCIENCE RESEARCH SCHOLARSHIP AWARDS

- 15 Awards Annually
- Scholarships up to \$25,000
- Two Summer Internships at a Merck Research Facility

#### An applicant must:

- Be a full-time student at any four-year college or university
- Have junior year academic status
- Major in a life or physical science (first professional degrees excluded)
- Have a minimum cumulative GPA of 3.3 (4.0 point scale)

#### GRADUATE

SCIENCE RESEARCH
DISSERTATION FELLOWSHIPS

- 12 Fellowships Annually
- Fellowship Stipends up to \$30,000
- Department Grants of \$10,000
- Support for 12-24 months

#### An applicant must:

- Be enrolled full-time in a Ph.D. or equivalent doctoral program in a biomedical life or physical science
- Be engaged in and within 1-3 years of completing dissertation research

#### POSTDOCTORAL

SCIENCE RESEARCH FELLOWSHIPS

- 10 Fellowships Annually
- Fellowship Stipends up to \$55,000
- Department Grants of \$15,000
- Support for 12-24 months

#### An applicant must:

- Hold a Ph.D. or equivalent degree in a biomedical life or physical science
- Be appointed as a postdoctoral fellow during the 2000 calendar year at an academic or non-academic research institution (private industrial laboratories are excluded)

Applicants must be African American (Black, non-Hispanic), U.S. citizens or permanent residents and at an institution in the U.S.A. Applications must be postmarked by January 31, 2000 For application forms and more information, please contact your department chairperson or Jerry L. Bryant, Ph.D., by mail at *The College Fund/UNCF*, 8260 Willow Oaks Corporate Drive, P.O. Box 10444, Fairfax, VA 22031-4511,

Fund/UNCF, 8260 Willow Oaks Corporate Drive, P.O. Box 10444 by fax (703) 205-3574, or by E-mail: uncfmerck@uncf.org

Visit our web site: www.uncf.org

#### Faculty Positions in Cancer Research LSU Health Sciences Center

The Stanley S. Scott Cancer Center at LSU Health Sciences Center in New Orleans invites applications for tenure track or tenured positions at the Associate Professor or Professor level. Candidates should possess a Ph.D. or M.D. degree and have demonstrated excellence in their research as indicated by both publications and a track record of externally funded research grants. The successful applicants will be expected to pursue an independent, yet collaborative approach, addressing broad issues that relate to oncologic science. Research interests in prostate and/or lung cancer are encouraged but not required.

The search will give full consideration to applications that include a curriculum vitae (including funding grant history), four representative publications, and the names of three individuals that may be contacted for letters of reference.

Joint appointments in the Cancer Center and an appropriate Department at the LSU Medical School are anticipated. The individual Departments will be dependent on the successful applicants' expertise and interests. Laboratory space will be provided in a new state of the art facility in the heart of the Medical School complex. LSUHSC is an EOE/AA.

Interested candidates should submit their curriculum vitae to Dr. Oliver Sartor, Director, Stanley S. Scott Cancer Center, Suite 620, 2025 Gravier Street, New Orleans, Louisiana 70112.





#### DIRECTOR, INTERNATIONAL ARCTIC RESEARCH CENTER

Applications and nominations are invited for the position of Director of the International Arctic Research Center (IARC). The new director will replace Dr. Syun-Ichi Akasofu, Founding Director of IARC. The director provides scientific leadership and has administrative and budgetary responsibility for the research programs of IARC. The director will be expected to develop and maintain sound working relationships with IARC's partners.

Applicants should be distinguished senior scientists with an earned doctoral degree or its equivalent in training and experience. Selection criteria will include well documented evidence of substantial contributions to the candidate's field of science in a discipline prominently represented in IARC; well documented evidence of innovative and successful leadership of substantial and major scientific research activities, including the procurement of funds to support such activities; evidence of ability to communicate effectively with peers, support staff, sponsors of research projects, and the general public; and administrative/managerial/fiscal experience in the planning and supervision of major projects.

The Search Committee for Director will begin its evaluation of applications on 1 February 2000. The appointment, expected to be offered about 1 May 2000 and effective 1 July 2000, will be made by the Chancellor of the University of Alaska, Fairbanks with the advice of the Implementing Committee of IARC. The director serves at the pleasure of the Chancellor of UAF under the direction of the President of the University of Alaska. The appointment normally carries with it a separate tenured full-professorship in an appropriate academic department of the university. Additional information about IARC is available at IARC's Website: www.iarc.uaf.edu

The University of Alaska is an equal opportunity, affirmative action employer and education institution. To apply, send a current curriculum vitae, statement of interest and have three letters of reference sent to the address below:

Dr. James S. Sedinger, Chair IARC Director Search Institute of Arctic Biology P.O. Box 757000 University of Alaska Fairbanks Fairbanks, AK 99775-7000 (907) 474-7648 (voice) E-mail: ffiss@uaf.edu

#### University of Minnesota

Institute of Human Genetics and Department of Genetics, Cell Biology, and Development

#### Tenure-Track Assistant Professor in Gene Transfer/ Genome Manipulation

The Institute of Human Genetics (IHG), now in its 15th year, comprises researchers from clinical and basic sciences using both human and animal model systems. IHG research efforts are currently focused on Cancer Genetics, Genetics of Complex Diseases, Neurogenetics, and Gene Therapy. The IHG, in conjunction with the newly-formed Department of Genetics, Cell Biology, and Development (GCD), seeks candidates for a new tenure-track position at the Assistant Professor level in the field of Gene Transfer/ Genome Manipulation.

Candidates must have a Ph.D. and/or M.D. degree, at least two years of postdoctoral experience, and a strong publication record. Candidates must be U.S. citizens or be able to secure permanent resident status. The successful candidate is expected to develop an independent, extramurally funded research program and will participate in the teaching of undergraduate, graduate, and/or professional students. Scientific interactions with both basic and clinical scientists in diverse disciplines will be encouraged, and a strong association with faculty of the Gene Therapy Program and the new Arnold and Mabel Beckman Center for Transposon Research is anticipated. The successful candidate will hold a tenure-track appointment in GCD, and the starting salary will be commensurate with education and experience.

Please send a curriculum vitae, statement of research interests, and three letters of recommendation that consider both research and teaching potential to: Debra Lozowy, Search Committee, University of Minnesota, Institute of Human Genetics, Box 206 Mayo, 420 Delaware Street SE, Minneapolis, MN 55455, U.S.A.

Application deadline extended to January 1, 2000.

The University of Minnesota is an equal opportunity educator and employer.



#### CELL AND DEVELOPMENTAL BIOLOGY GROUP

Faculty Positions in

- \* Molecular Mechanisms \*
- \* Developmental Biology \*

We seek outstanding applicants with a Ph.D. or M.D. degree for a tenure or tenure track appointment in the Basic Science Division. The successful applicant will receive a generous startup package with which to develop a vigorous, extramurally-funded research program.

Fox Chase, located in suburban Philadelphia, offers a highly interactive, multidisciplinary environment support by state of the art Core grant funded facilities, extramural and intramural postdoctoral training grants, endowed fellowships and an outstanding funding record for investigator-initiated grant applications. To apply, please send CV, description of research plans, and 3 letters of recommendation to: Dr. Anna Marie Skalka, Senior Vice President, Fox Chase Caucer Center, c/o Human Resources, 7701 Burholme Avenue, Philadelphia, PA 19111.

See:

www.fccc.edu/scientific/research/programs/cell

Fox Chase Cancer Center is an Affirmative Action/Equal Opportunity Employer

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#### BIOANALYSIS & DRUG METABOLISM

#### Research Associate/Scientist

You will design and validate bioanalytical HPLC assays for determining the concentrations of drugs and their metabolites in biological matrices from preclinical models. Qualified candidates will have BS, MS, or PhD in Biology, Pharmacology, Chemistry or a related science discipline and 2+ years lab background in bioanalytical methods development, validation, and performance of GSSZQ for pharmaceutical compounds in biological fluids. Hands-on experience setting up, validating and performing assays using LC/MS/MS in biological matrices is required.

#### FUNGAL GENOMICS

#### Research Associate

You will join a multi-disciplinary effort to identify and validate mode of action of novel antifungal compounds. Qualified candidates will have a BS/MS in Molecular Biology or Genetics and 3+ years experience in antimicrobial drug research. Working knowledge in the use of DNA micro-arrays is also preferred.

#### MICROBIOLOGY

#### Research Associate/Scientist

You will evaluate anti-infective agents using *in vitro* methods and animal models of infection. Qualified candidates will have a BS, MS, or PhD in Microbiology or a related field and 2+ years experience in microbial identification, evaluation of antimicrobial agents, drug resistance studies, and pharmacodynamics.

These exceptional career opportunities are supported by a competitive salary and excellent benefits. If you're an energetic, motivated professional, please send or fax your resume to: Microcide Pharmaceuticals, Inc., Attn: Human Resources, 850 Maude Avenue, Mountain View, CA 94043. Fax: (650) 428-3566. E-mail: hr@microcide.com. EOE.

Visit our website at www.microcide.com

Microcide PHARMACEUTICALS

# University of Arkansas at Little Rock Dean College of Science and Mathematics

The University of Arkansas at Little Rock (UALR) invites nominations and applications for the position of Dean of the College of Science and Mathematics. As the chief academic officer of the College, the Dean reports to the Provost and Vice Chancellor for Academic Affairs.

UALR [www.ualr.edu] is a member of the University of Arkansas System and enrolls over 11,000 students. The College offers 20 undergraduate and four master's degree programs, and serves over 1100 majors, with more than 100 full-time faculty in six departments (Biology, Chemistry, Earth Science, Mathematics and Statistics, Nursing, and Physics and Astronomy). The College collaborates with the College of Information Science and Systems Engineering in offering Ph.D. programs in Applied Chemistry, Applied Physics, and Biotechnology. The College occupies three modern five-story structures.

Requirements for the position include:

- · earned doctorate in science or mathematics,
- record of scholarly activity sufficient to warrant tenured appointment at the rank of Professor in an academic department within the College, and
- the administrative experience at the department chair level (or equivalent) or higher.

Preference will be given to candidates who possess the following characteristics:

- commitment to high-quality undergraduate and graduate teaching;
- record of supporting faculty excellence in research;
- record of innovative administrative leadership and achievement;
- · effective interpersonal and communication skills;
- · record of obtaining external funding;
- commitment to outreach programs and community partnerships;
- · experience in strategic planning and program assessment;
- understanding of the complex and challenging issues affecting higher education;
- · appreciation of the importance of new technologies;
- commitment to developing mathematics and science initiatives in public education;
- sensitivity to gender and diversity issues and affirmative action principles.

As a metropolitan, comprehensive university, UALR is increasing its participation in many aspects of development in Arkansas. Little Rock, the state capital and an urban area with a population of over 400,000, is the geographic, governmental, economic, and medical center of Arkansas. This location provides many opportunities for outreach and collaboration by UALR faculty and staff. Nearby institutions available for collaborative activities include world-class medical and research facilities, federal and state agencies, non-profit organizations, and a growing number of technology-based businesses.

Completed applications will include a current curriculum vitae, a letter of application addressing the applicant's educational and administrative approach/style, and the names, addresses, and telephone numbers of five references who may be contacted regarding the applicant. The projected starting date is July 1, 2000. The salary is competitive. Review of applications will begin January 15, 2000, and will continue until the position is filled. Nominations, applications, and requests for additional information should be directed to: Kathy Sanders, Chair, College of Science and Mathematics Dean Search Committee, Ottenheimer Library, University of Arkansas at Little Rock, 2801 South University Avenue, Little Rock AR 72204. Tel, (501) 569-8803, Fax: (501) 569-3017, e-mail: kasanders@ualr.edu

The University of Arkansas at Little Rock is an equal opportunity, affirmative action employer and actively seeks the candidacy of minorities, women and persons with disabilities. Under Arkansas law, all applications are subject to disclosure. Persons hired must have proof of legal authority to work in the United States.

#### TENURE-TRACK POSITION IN MOLECULAR/CELL BIOLOGY Department of Medical Genetics and Microbiology University of Toronto

We are searching for a tenure-track appointee in the broad area of fundamental molecular and cell biology. The applicants should have a Ph.D. degree or equivalent and postdoctoral experience. They should be capable of mounting an original, competitive, and independently funded research program in the area of molecular and cell biology. Applicants undertaking basic research using model genetics organisms, such as yeast and other microbes, C. elegans, and Drosophila, are encouraged to apply. The applicant will be expected to have a commitment to undergraduate and graduate education in molecular biology and genetics or microbiology. The applicant will benefit from a larger effort at the University of Toronto and affiliated teaching hospitals to expand research in proteomics, genomics, and cell imaging through academic programs and new infrastructure. Effective July 1, 2000, the appointment will normally be made at the AS-SISTANT PROFESSOR level. Outstanding candidates at a higher level will be considered. The position is open to all qualified applicants. Send curriculum vitae, a summary of research interests, and three letters of reference before January 30, 2000, to: **Dr**. Brenda J. Andrews, Ph.D., Chair, Department of Medical Genetics and Microbiology, University of Toronto, Toronto M5S 1A8, Ontario, Canada E-mail: brenda.andrews@utoronto.ca. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples, and persons with disability

# INVESTIGATOR POSITIONS AVAILABLE (TENURED OR TENURE TRACK) Genetic Manipulation of Hematopoietic Stem Cells Medicine Branch, National Cancer Institute

The Experimental Transplantation and Immunology Department of the Medicine Branch, Division of Clinical Sciences, NCI, invites applications for a laboratory-based Investigator position in hematopoiesis/stem cell gene therapy: Candidates must have an M.D. or Ph.D., a strong record of accomplishment, and the potential of establishing an internationally recognized, independent program in the genetic manipulation of hematopoietic stem cells. This program will have the goal of developing information, princi-ples, and/or applications complementing clinical marrow transplantation efforts in the Department. Successful candidates will join the new Department of Experimental Transplantation and Immunology that includes in its membership basic, clinical-translational, and clinical Investigators. This position provides full salary support and independent and substantial supply and equipment budget, along with technician and fellow support. U.S. citizenship or resident alien staus is required. Applicants should send a curriculum vitae, a statement of the candidate's proposed research program, and three to five letters of recommendation to: Ms. Rose S. Brown, Department of Experimental Transplantation and Immunology, Medicine Branch, National Cancer Institute, Building 10, Room 12N226, 9000 Rockville Pike, Bethesda, MD 20892-1906 by February 15, 2000. NIH is an Equal Opportunity Employer

#### UNIVERSITY OF FLORIDA

Seeks an ASSISTANT PROFESSOR, tenure track, for the Department of Medicine, Division of Nephrology. M.D. or Ph.D., significant postdoctoral training and potential to develop and maintain a vigorous extramurally funded research program. Salary and benefits commensurate with experience. Recruiting deadline December 9, 1999. Anticipated starting date December 23, 1999. Please respond with curriculum vitae to: Mohan K. Raizada, Ph.D., Professor, Department of Physiology, Box 100274, Gainesville, FL 32610-0274. An Equal Opportunity/

#### **POSITIONS OPEN**

### PENNSTATE



#### ASSISTANT PROFESSOR OF BIOLOGY

The Commonwealth College invites applications for tenure-track Assistant Professors of Biology for its Delaware County, DuBois, and Worthington Scranton campuses. Starting date: August 2000 or as negotiated. Descriptions of the positions, the campuses, and the college are available at website: http:// www.cwc.psu.edu. To apply: Please submit a cover letter, résumé, the names, addresses, telephone numbers, and e-mail addresses (if available) of three references to: Commonwealth College Faculty Searches, The Pennsylvania State University, 111 Old Main, Box SCI, University Park, PA 16802. Please make reference in your cover letter as to the journal/ magazine in which you saw this announcement. Applications will be accepted until the positions are filled. Penn State is committed to Affirmation Action, Equal Opportunity and the diversity of its workforce.

#### FACULTY POSITION IN CANCER GENETICS University of Minnesota Cancer Center

The University of Minnesota Cancer Center has established an Endowed Faculty position in cancer genetics. Outstanding individuals currently at the AS-SISTANT or ASSOCIATE PROFESSOR levels are encouraged to apply. The individual will be named to the Schering Chair in Cancer Genetics and will play a significant role in the expansion of the research program in molecular biology and the genetics of malignancy. The Cancer Center and Academic Health Center will devote competitive resources to the candidate and are committed to the growth of the Cancer Genetics program through additional faculty recruitments. Modern laboratory space will be provided in the new Cancer Center Research Building, with access to state-of-the-art core facilities in mouse genetics, flow cytometry, tissue procurement, analytical chemistry and biomarkers, cell therapy, and statistics. The candidate must have a Ph.D. or M.D. and a distinguished record of high-quality research in molecular biology and genetics. There is a particular interest in solid tumors, although the search is not limited. Strong emphasis will be placed upon the candidate's ability to lead an externally funded research program of national prominence and the potential for interaction with other existing Cancer Center programs in prevention and etiology, immunology, cell biology, and transplant biology. The appointment will be tenured in the appropriate University Medical School Department depending on qualifications. Please send a curriculum vitae, a brief research statement, and names of three references to: Chair, Schering Search Committee, c/o Jacqueline Sterling, Human Resources, University of Minnesota Cancer Center, Box 806, 420 Delaware Street S.E., Minneapolis, MN 55455-0392. Applications will be reviewed immediately and accepted until February 1, 2000, or until the position is filled. The University of Minnesota is an Equal Opportunity Educator and Employer.

Northwestern College (Iowa) invites applications for two TENURE-TRACK POSITIONS beginning August 2000. (1) Plant Science: Teaching responsibilities include Botany, Plant Physiology, Plant Ecology, and Plant Taxonomy and a commitment to training in Environmental Science. (2) Anatomy and Physiology: Teaching responsibilities include Human Anatomy and Physiology (non-major), Comparative Vertebrate Anatomy, Human Anatomy, Histology, and Developmental Biology. Candidates for both positions should have a doctorate degree, and development of research studies involving undergraduate students is expected. Northwestern College is a Christian liberal arts college affiliated with the Reformed Church in America. We seek faculty who are evangelical in theology with a Reformed perspective. Apply to: Dr. Raymond Weiss, VPAA, Northwestern College, Orange City, IA 51041. E-mail: vpaa@nwciowa.edu.

#### POSITIONS OPEN

#### TENURE-TRACK POSITION IN HUMAN GENETICS/MOLECULAR MEDICINE Department of Medical Genetics and Microbiology University of Toronto

We are searching for a tenure-track appointee in the area of molecular medicine/human genetics. The applicants should have a Ph.D. degree or equivalent and postdoctoral experience. They should be capable of mounting an original, competitive, and independently funded research program in the area of molecular medicine, broadly defined. Applicants undertaking basic research related to human genetic disease mechanisms (including models of human genetic disease) or research in functional genomics, bioinformatics, and polygenic inheritance are encouraged to apply. The applicant will be expected to participate in the development of academic programs within the inter-departmental Program in Molecular Medicine in the Faculty of Medicine. The applicant will benefit from a larger effort at the University of Toronto and affiliated teaching hospitals to expand research in proteomics, genomics, and cell imaging through academic programs and new infrastructure. Effective July 1, 2000, the appointment will normally be made at the AS-SISTANT PROFESSOR level. Outstanding candidates at a higher level will be considered. The position is open to all qualified applicants. Send curriculum vitae, a summary of research interests, and three letters of reference before January 30, 2000, to: Dr. Brenda J. Andrews, Ph.D., Chair, Department of Medical Genetics and Microbiology, University of Toronto, Toronto, M5S 1A8, Ontario, Canada. E-mail: brenda.andrews@utoronto.ca. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples, and persons with disability.

#### **BIOLOGY POSITION**

Southwestern College seeks a broadly trained plant biologist who uses cellular/molecular techniques to investigate biological questions. The position is a tenure-track position at the ASSISTANT PROFES-SOR level to begin August 2000. We seek candidates with a Ph.D. who are committed to creative undergraduate teaching and undergraduate research. Southwestern College has a new science facility, is a laptop college, and features an innovative, integrative general education program. More information is available at website: http://www.sckans.edu/-biology/position.htm. Review of applications begins January , 2000, and will continue until a candidate is selected. Send a curriculum vitae, undergraduate and graduate transcripts, three reference letters, a statement of teaching philosophy, and evidence of teaching effectiveness to: David A. Nichols, Dean of Faculty, Southwestern College, Winfield, KS 67156. Email: dnichols@sckans.edu; Telephone: 316-221-8205. An Equal Employment Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR OF BIOLOGY

Randolph-Macon Woman's College, a selective liberal arts college with historic strengths in the sciences, invites applications for a tenure-track position at the level of Assistant Professor beginning in August 2000. The position requires a Ph.D. in a biological science and a strong commitment to teaching. Teaching responsibilities include a core course in general botany, introductory biology, and advanced courses in molecular and/or evolutionary plant biology. Additionally, regular participation in Senior Seminar and supervision of undergraduate research are expected. Preference will be given to candidates with a broad general biology background and teaching experience. Application review will begin December 10, 1999, and continue until position is filled. Send letter of application, including a statement of teaching and research interests, a curriculum vitae, and names, mail and e-mail addresses, and telephone numbers of three references to: Dr. Ronald D. Gettinger, Department of Biology, Randolph-Macon Woman's College, Lynchburg, VA 24503. Telephone: 804-947-8490; FAX: 804-947-8138; e-mail: rgettinger@rmwc. edu. Equal Opportunity S/WMA.





### Biology Faculty Position University of St. Thomas

The University of St. Thomas Department of Biology in St. Paul, Minnesota invites applications for a full-time, limited term (renewable each year for up to 5 years) ASSISTANT PROFESSORSHIP to begin fall semester 2000.

Candidates should be broadly trained and be committed to teaching in a liberal arts setting. Responsibilities will include teaching in our majors and non-majors introductory courses and upper-level courses in your area of expertise. We especially encourage persons with expertise in either physiology or aquatic biology. Candidates must have a Ph.D. Teaching experience is preferred. Send letter of application, curriculum vitae, statement of teaching philosophy, proposal for an upper-level course you would like to teach, and three letters of recommendation.

Completed applications due by 10 January 2000 to: Ms. Carol Felton, Mail # OWS153, 2115 Summit Avenue, St. Paul, MN 55105. Refer to #200624

The University of St. Thomas is a private, Catholic, comprehensive, liberal arts university with an undergraduate student body in excess of 5000. The Department of Biology has a membership of 12 faculty and 4 staff. Additional information about the Department is available on our website: http://department.stthomas.edu/BIOL/. The University is an Equal Opportunity Employer and is committed to a program of Affirmative Action.



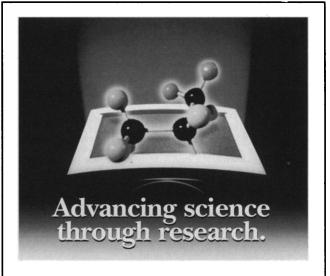
#### Life Sciences at the University at Albany State University of New York

Two positions are available starting Fall, 2000 as part of an expansion in the Life Sciences.

- The Department of Chemistry seeks a tenure track Assistant Professor in experimental Physical Biochemistry. Candidates should have a background in structural and/or mechanistic biochemistry. Primary teaching responsibility will be in physical chemistry.
- 2. The Department of Biological Sciences seeks a tenure track Assistant, or tenured Associate Professor studying Developmental Genetics of model eukaryotes or Structural Biochemistry of macromolecules, preferably using bioinformatics/computational genomics approaches. The Department has a large, active research group with a vigorous graduate program and a new department-led, university-wide initiative in Comparative Functional Genomics. A recent \$2.5 million grant from the State of New York is being used to establish core facilities in molecular biology and transgenesis.

Construction of a new 160,000 sq. ft. Life Sciences research building will begin in summer, 2000. Successful applicants are expected to establish or (for a senior appointment) already have externally funded research programs, and to participate in undergraduate and graduate teaching. Please send a curriculum vitae, a brief statement of research interests, and at least three letters of reference addressed to the Chair of the Search Committee (of the appropriate department), University at Albany, 1400 Washington Ave., Albany, NY 12222. Review of applications will begin on January 3, 2000, but applications will be accepted for consideration until the positions are filled. Positions are pending final budget approval.

The University at Albany is an Equal Opportunity/Affirmative Action Employer.



Parke-Davis, a Division of Warner-Lambert Company, is devoted to discovering, developing, manufacturing, and marketing quality pharmaceutical products. Through the work of the finest scientific talent and dedication, we have demonstrated an excellent record of innovation through the use of great science to discover drugs for unmet medical needs.

## POST DOCTORAL POSITION IN GENOMICS PATHOLOGY

Currently, the University of Michigan Department of Pathology and the Department of Pathology and Experimental Toxicology at Parke-Davis Pharmaceutical Research (Ann Arbor) announce a dual-mentor fellowship in Genomic Pathology aimed to characterize endpoints of human disease or toxicity on a genetic basis by combining the newest laboratory techniques available. Emphasis is on liver, kidney, cardiovascular or immunopathology. The work setting is in the University of Michigan Medical School, at the Genomic Pathology Laboratory within the Department of Pathology. Mentors will be Peter A. Ward, MD (University of Michigan) and Felix A. de la Iglesia, MD (Parke-Davis).

The fellow will have access to the resources of the Anatomic and Clinical Residency Programs at the University of Michigan and to laboratory support from, Clinical Pathology, Molecular Biology and other research laboratories from both Institutions. Candidates with interest or experience in Anatomic, Clinical, Molecular or Genomic Pathology are encouraged. Applicants with advanced professional degrees (M.D., Ph.D., and D.V.M.) must be U.S. citizens or Permanent Residents. The University of Michigan and Parke-Davis are equal opportunity employers. Potential candidates should provide a short (200–250 word) statement of their interest and career goals, a curriculum vitae and additional materials addressed to:

Genomic Pathology Fellowship C/O Peter Ward, MD Department of Pathology University of Michigan Med. Sci | M5240/0602 1301 Catherine Road Ann Arbor, MI 48109-0602



#### TRANSFUSION MEDICINE

The Department of Pathology and Laboratory Medicine at the University of Pennsylvania invites applications for two FACULTY POSITIONS in the clinician-educator or tenure track in the Blood Bank/ Transfusion Medicine Section of the Division of Laboratory Medicine available by July 1, 2000. Rank will be commensurate with experience. Candidates must hold M.D. or M.D./Ph.D. degrees and be boardeligible or board-certified in clinical pathology, internal medicine, or pediatrics. Successful applicants will be dynamic individuals with strong backgrounds in the scientific, clinical, and technical aspects of transfusion medicine. Applicants will be expected to further develop our expanding research program in transfusion biology and medicine. Preference for one of the positions will be given to an individual with an interest in cellular immunotherapy/cellular engineering. The environment for collaborative research within the department and at the University of Pennsylvania is outstanding, including the presence of the Abramson Cancer Research Foundation, the Institute for Human Gene Therapy, and the Institute for Medicine and Engineering. Curriculum vitae, a statement describing previous experience, and the names of three references should be submitted by February 15, 2000, to: Don L. Siegel, Ph.D., M.D., Chairman of the Search Committee, Department of Pathology and Laboratory Medicine, 207 John Morgan Building, 36th and Hamilton Walk, University of Pennsylvania, Philadelphia, PA 19104-6082. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

## FACULTY POSITION DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING The Johns Hopkins University

The Department of Materials Science and Engineering at the Johns Hopkins University invites applications for a tenure-track faculty position in the areas of nanostructured materials or thin films. The successful candidate will be expected to develop an innovative research program and to teach at both the undergraduate and graduate level. Applicants should have a Ph.D. in materials science and engineering or related field and must have demonstrated ability to undertake interdisciplinary research. Postdoctoral experience is highly desirable. It is anticipated that the appointment will be at the ASSISTANT PROFESSOR level although an appointment at the Associate or Full Professor level will be considered. Applicants should submit a detailed résumé; a statement of research plans and teaching interests; and the names, addresses (including e-mail), and telephone numbers of three references to: Chair, Search Committee, Department of Materials Science and Engineering, 102 Maryland Hall, The Johns Hopkins University, Baltimore, MD 21218. Information on the Department of Materials Science and Engineering can be found at website: www.jhu.edu/~matsci/. To ensure full consideration, applications should be received by February 1, 2000. Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply

#### ASSISTANT ADJUNCT PROFESSOR OF BIOCHEMISTRY AND BIOPHYSICS

The Department of Biochemistry and Biophysics at University of California, San Francisco (UCSF), invites applications for Assistant Adjunct Professor. The successful candidate will serve as full-time lecturer and coordinator of courses in cell biology, molecular biology, and intermediary metabolism for medical, dental, and pharmacy students. Ph.D. or M.D or equivalent doctoral-level degree is required. Postdoctoral research experience is highly desirable. To apply, send curriculum vitae and request that three letters of recommendation be sent to: Professional-School Teaching Co-Coordinator, Search Committee, Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0448. All material should be received by January 15, 2000. The University of California is an Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

#### BIOENGINEERING FACULTY POSITIONS

The University of Illinois at Chicago, Department of Bioengineering, invites applications for full-time, tenure-track positions at the ASSISTANT, ASSO-CIATE, and FULL PROFESSOR levels. Desired areas of interest include cell and tissue engineering, neural engineering, and bioinformatics. The Department of Bioengineering offers B.S., M.S., and Ph.D. degrees and has a strong emphasis on graduate training and research. The present enrollment is approximately 100 undergraduate and 75 graduate students. Additionally, an M.D./Ph.D. program is offered jointly by the Department of Bioengineering and the College of Medicine. Campus facilities include the Microfabrication Applications Laboratory, the Biomedical Visualization Laboratory, the Biologic Resource Center, complete animal care facilities and extensive computer resources. These positions must be filled by the fall of 2000. The candidate is expected to establish a strong research program, develop new courses in bioengineering, and contribute to the development of the new multidisciplinary activities in the Department of Bioengineering. For fullest consideration, please send a detailed curriculum vitae, reprints of publications, a statement of research interests, and the names of three references by February 1, 2000, to: R. L. Magin, Ph.D., Chairman, Faculty Search Committee, University of Illinois at Chicago, Department of Bioengineering (M/C 063), 851 South Morgan Street, Room 218 SEO, Chicago, IL 60607-7052. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

#### DIRECTOR

#### PLANT TRANSFORMATION FACILITY

The University of Missouri invites applications for full-time Director of the new Plant Transformation Facility. Position is primarily support/service with limited research and teaching responsibilities. The successful candidate will play an integral part in interdisciplinary programs focusing on metabolic engineering, disease resistance, value-added traits, and expanding the fundamental knowledge of plants via plant gene transfer technologies. The PTF Director will supervise technical support persons and oversee transformation efforts and facility budget. PTF will provide services related to transformation of model plant species as well as soybean, maize, and wheat. PTF is located in the new 35,000 square foot, stateof-the-art Plant Growth and Greenhouse Facility. Technicians and operations budget are provided. Minimal requirements: Ph.D. (or M.S. with extensive experience) in the plant sciences with experience and emphasis on plant transformation and tissue culture. Communication skills and a desire to work with a variety of researchers are essential. Competitive salary and comprehensive benefits are provided. Available: 1 January 2000 or as negotiated. Review of applications will begin 15 December 1999. Please submit a statement of experience, curriculum vitae, and names of three references (including address, telephone, and e-mail) to: Doug Randall, 117 Schweitzer Hall, Columbia, MO 65211. The University of Missouri is an Equal Opportunity Employer.

## ASSISTANT PROFESSOR (MOLECULAR BIOLOGY/GENOMICS) Colorado State University

Applications and nominations for a full-time, tenure-track, nine-month Assistant Professor faculty position are invited. Teaching and research responsibilities will be a course in the undergraduate major and the development of an externally funded program in molecular biology/genomics that contributes to solving problems in Colorado agriculture. Please visit website: www.colostate.edu/depts/bspm/for position description. Applications will be considered until the position is filled; however, for full consideration, applications should be submitted by 1 February 2000 to: Dr. Dennis L. Knudson, Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, CO 80523-1177. Telephone: 970-491-1930; FAX: 970-491-3862, e-mail: bspm@lamar.colostate.edu. Colorado State University is an Equal Employment Opportunity/Affimative Action Employer.

#### POSITIONS OPEN

DIRECTOR, SEARCH EXTENDED. University of Miami Marine and Freshwater Biomedical Sciences Center. Position available immediately for National Institute of Environmental Health Sciences-supported center. Now in its ninth year, the Center boasts an international reputation in marine environmental health sciences and operates core resources, a postdoctoral training program, a seminar series, and an international outreach program. The Director will be expected to maintain an independent research program as well as to administer collaborative Center programs involving a diverse faculty from several departments and schools of the university. The successful candidate will have a history of NIEHS or broader NIH funding, be qualified for appointment at the rank of PROFES-SOR in the Division of Marine Biology and Fisheries (with secondary/joint appointment in a relevant department of the School of Medicine), and have administrative experience commensurate with the position. Areas of research interest should be compatible with the mission of NIEHS including, but not limited to, environmental (aquatic) toxicology, enviromental genomics, and environmental biochemistry and marine toxins/natural products. Applicants should send curriculum vitae, names of three references, funding history, and statement of interest to: Dr. Patrick J. Walsh, MFBS Center Search Committee, University of Miami Rosenstiel School, 4600 Rickenbacker Causeway, Miami, FL 33149. Search committee will begin deliberations in early January 2000 and continue until the position is filled. An Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology of the College of Staten Island of The City University of New York invites applications for a tenure-track position as Assistant Professor, to start September 2000. Required: Ph.D. in biology, research experience utilizing molecular techniques in the areas of virology or parasitology, college teaching experience, experience in curriculum development, and a record sufficient for appointment to the CUNY doctoral faculty. Postdoctoral experience and evidence of grant activity preferred. Experience in medical technology and bioinformatics desired. Responsibilities include undergraduate and graduate teaching, performing department and college service, and engagement in an active and productive research agenda. Salary range: \$42,162 to \$57,049, commensurate with qualifications and experience. Review of applications will begin on January 14, 2000, and continue until the position is filled. Send a letter of application including research plans and a statement on teaching philosophy, curriculum vitae, and the names, addresses, and telephone numbers of three references to: Professor Jacqueline LeBlanc, Chairperson, Department of Biology, College of Staten Island/CUNY, 2800 Victory Boulevard, Staten Island, NY 10314. Equal Employment Opportunity/Affirmative Action/ADA Employer.

The Department of Orthopaedic Surgery at the University of Iowa College of Medicine is seeking a highly qualified individual to direct our Ponseti Cell and Molecular Biology Laboratory. The laboratory has a 40-year history and is well established and equipped. The primary focus of this laboratory has been cartilage biology, although research in bone and soft tissues has also been conducted. The individual should have experience in directing research programs as well as a substantial publication record in connective tissue biology. A record of ability to obtain and manage external funding for high-quality research is essential. A demonstrated ability to collaborate with physicians, engineers, and other scientists is highly desirable. The position would be associated with a tenure-track opportunity as an ASSISTANT PRO-FESSOR, ASSOCIATE PROFESSOR, or PRO-FESSOR. Rank and salary will be commensurate with the record and experience of the individual. Submit a letter of your interest and curriculum vitae to: Joseph A. Buckwalter, IV, M.D., Professor and Chair, Department of Orthopaedic Surgery, The University of Iowa, Iowa City, IA 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply.





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#### ENVIRONMENTAL BIOLOGY University of Utah

The Department of Biology at the University of Utah seeks candidates for a tenure-track faculty position at the ASSISTANT or ASSOCIATE PRO-FESSOR rank. We are looking for a colleague with broad interests in biology who will establish a strong basic research program relevant to environmental issues. Areas of interest include, but are not limited to. conservation genetics, global change, invasive species ecology, and applications of evolutionary biology to medicine. Preference will be given to candidates likely to interact broadly in our department, which spans all of biology from ecology and evolution through physiology, genetics, cell biology, and biochemistry. Applicants should have a strong commitment to undergraduate teaching as well as to research and graduate education. The successful candidate will be expected to develop an advanced undergraduate course in environmental biology and to contribute to the core curriculum for undergraduate biology majors. Applicants should submit a curriculum vitae, statement of research interests, copies of up to four recent publications, and arrange to have three letters of recommendation sent to: The Environmental Biology Search Committee, Department of Biology, 257 South 1400 East, University of Utah, Salt Lake City, UT 84112. Applications received by January 24, 2000, will receive the fullest consideration.

The University of Utah is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities and provides reasonable accommodations to the known disabilities of applicants and employees.

#### ASSISTANT PROFESSOR OF BIOLOGY

Assistant Professor: Gannon University, a Catholic institution located in Erie, Pennsylvania, announces a nine-month, tenure-track faculty position at the level of Assistant Professor in Biology to begin August 25, 2000. The department is seeking a vertebrate biologist whose teaching responsibilities will include comparative anatomy, freshman biology courses, and courses in the candidate's area of interest. Required qualifications: earned Ph.D. in biological sciences, training and ability to teach courses associated with this position, as well as training and ability to direct student research. Teaching experience at the college level preferred. To apply, send letter of application, curriculum vitae, and three letters of recommendation to: Gannon University, Human Resources Department, Biology Research Committee, 109 University Square, Erie, PA 16541. FAX: 814-871-7514; e-mail: hrdept@gannon.edu. This position will remain open until filled. Direct e-mail inquiries to: Professor David J. Gustafson, Chairperson of the Department of Biology, at gustafso002@ gannon.edu. For more information about Gannon, visit our website: www.gannon.edu. Gannon University is an Affirmative Action/Equal Opportunity Employer.

#### DEPARTMENT OF ANESTHESIOLOGY UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY

Tenure-track faculty position at the ASSISTANT/ ASSOCIATE PROFÊSSOR level to begin September 1, 2000, at the latest. Candidates must have a Ph.D., M.D., or both with expertise in molecular/ neuroscience or related field and a record of excellence in research. The department seeks an applicant of outstanding potential with a demonstrated interest in basic or translational research pertinent to anesthesiology who employs modern molecular neuroscience techniques. Development of an independent extramurally funded research program and a desire to participate in a program project grant are required. A joint appointment with a basic science department will be arranged for qualified candidates. Send curriculum vitae, description of research, and teaching experience with addresses of three references by March 30, 2000, to: Dr. Jay Yang, Chair, Search Committee, Department of Anesthesiology, University of Rochester Medical Center, 601 Elmwood Avenue, Box 604, Rochester, NY 14642. The University of Rochester is an Equal Opportunity/Affirmative Action Employer.

#### POSITIONS OPEN



AMERICAN UNIVERSITY

#### FACULTY POSITION IN MOLECULAR GENETICS American University

The Department of Biology, American University, invites applications for a tenure-track position for a molecular geneticist to begin fall 2000 at the AS-SISTANT PROFESSOR level. We are seeking a broadly trained geneticist whose research will complement the department's biology and environmental programs. The successful candidate will be expected to establish and maintain an active research program involving undergraduate and Master's level graduate students. The principal teaching responsibilities will include genetics for majors, molecular biology to upper division students, and biology for nonscience students. Candidates must have a Ph.D. and postdoctoral experience, demonstrate evidence of strong teaching skills, and provide departmental and university service. Review of applications will begin February 1, 2000, and will continue until the position has been filled. Send curriculum vitae, statements of teaching philosophy and research interests, and arrange to have three letters sent directly from references to: Dr. Richard H. Fox, Chair, Department of Biology, American University, Washington, DC 20016-8007. Position is subject to budgetary approval.

## TUFTS UNIVERSITY IS PRIVILEGED TO ANNOUNCE THE HENRY R. LUCE PROFESSORSHIP in Science and Humanitarianism

The Department of Biology and the School of Nutrition Science and Policy jointly invite applications for a tenure-track position in the Biology Department to begin in September 2000. A doctoral degree, a strong record of research productivity, and a commitment to a multidisciplinary approach are required. The successful candidate will have significant experience in a field of science and in the practice and policies of humanitarian emergencies. She or he will have a track record as teacher and mentor to students. She or he will also be expected to conduct a program of independent research and publication that seeks to generate and adapt scientific research in ways that influence humanitarian interventions. Teaching responsibilities include an undergraduate introductory, interdisciplinary course in the application of science to humanitarian studies and an advanced course in the candidate's field of specialty. Successful candidates could come, for example, from the fields of biology nutrition, epidemiology, veterinary science, medical science, indigenous medicine, or a related discipline. Applicants should submit a curriculum vitae, three recent publications, separate short statements of (1) research interests, (2) teaching experience and plans, and (3) experience in the role of science and humanitarian assistance; and three letters of recommendation. Those should be sent to: Search Committee Chair, Henry R. Luce Professor of Science and Humanitarianism, Feinstein International Famine Center, 96 Packard Avenue, Tufts University, Medford, MA 02155. The biology department's website: www.tufts.edu/as/biology; the Famine Center's website: www.tufts.edu/nutrition/ Inquiries and applications can be e-mailed to: misty. smalley@tufts.edu. Review of applications begins January 4, 2000, and will continue until the position is filled. Tufts University is an Affirmative Action/Equal Opportunity Employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

SMALL GRAINS BREEDING/GENETICS ASSISTANT PROFESSOR. Tenure track (85 percent research, 15 percent teaching) at Utah State University. Manage field research leading to development of improved germplasm and cultivars of spring barley and develop other research programs. See website: http://personnel.usu.edu (2–157) or call: 435-797-0124. Review begins January 3, 2000. Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

## ASSISTANT/ASSOCIATE PROFESSOR OF GENOMICS/MOLECULAR GENETICS OF REPRODUCTION POSITION

Washington State University, School of Molecular Biosciences, announces a position for a genomics/ molecular geneticist specializing in reproductive biology. This is a tenure-track appointment at the Assistant or Associate Professor level. This position is for a genomics and/or molecular geneticist in the newly formed School of Molecular Biosciences with an affiliation with the Center for Reproductive Biology. The candidate will utilize genomics and/or molecular genetics approaches to address important aspects of mammalian reproduction. The areas can include but are not limited to: reproductive cancer (e.g., breast, ovary, prostate); gametogenesis; male and female gonadal development and function; uterine biology; reproductive endocrinology; and toxicology. State-ofthe-art genomics/molecular genetics techniques used in the research can include but are not limited to: positional cloning, array technology, chromosomal genomic hybridization, or transgenics. Requirements include: Ph.D. with expertise in genomics/molecular genetics, postdoctoral experience in relevant field, ability to teach genomics/molecular genetics at the undergraduate and graduate levels, and ability to obtain external funding. The faculty member will join a new School of Molecular Biosciences composed of programs in biochemistry/biophysics, genetics and cell biology, biotechnology, and microbiology. Collaborations and interactions are expected with members of the School of Molecular Biosciences (website: http://molecular.biosciences.wsu.edu) and Center for Reproductive Biology (website: http:// www.crb.wsu.edu). Review of applicants will begin January 15, 2000, and will continue until the position is filled. The application should include a cover letter that indicates rank sought and qualifications, a curriculum vitae, description of teaching experience, summary of research interests and potential projects, and request three letters of recommendation to be forwarded separately. Mail application materials to: Michael K. Skinner, Chair, Genomics Search, Center for Reproductive Biology, School of Molecular Biosciences, Washington State University, Pullman, WA 99164-4231. E-mail: skinner@mail.wsu. edu. Washington State University is an Equal Opportunity/ Affirmative Action Educator and Employer. People of color, women, persons of disability, Vietnam-era and disabled veterans, and/or persons between the ages of 40 to 70 are encouraged to apply.

## TERRESTRIAL ARTHROPOD ECOTOXICOLOGIST

The Department of Entomology at the Ohio State University seeks candidates for a tenure-track position at the ASSISTANT PROFESSOR level in the area of environmental toxicology. The successful candidate will establish an externally funded program in arthropod ecotoxicology and will integrate his/her program with one or more current departmental programs in aquatic toxicology, soil ecology, pesticide application technology, or risk assessment/management. Research foci of interest include: use of arthropods as monitors of chemical exposure, molecular indicators of exposure, chemical transport processes in the terrestrial environment, and factors affecting fate and availability at the terrestrial/aquatic interface. There are abundant opportunities for cross-disciplinary research collaboration, especially in the Environmental Sciences graduate program. The successful candidate will also participate in the departmental teaching program, including teaching a graduate course in his/her specialty. The search committee will begin reviewing applications February 15, 2000, and continue until the position is filled. For full consideration, send a curriculum vitae, statement of teaching and research interests and capabilities, and the names of five references to: Professor S. W. Fisher, Chair, Search Committee, Department of Entomology, 1735 Neil Avenue, Ohio State University, Columbus, OH 43210. E-mail: fisher.14@osu.edu. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Women and people of color are encouraged to apply.



# Chief, Cartilage Biology Program Intramural Research Program National Institute of Arthritis and Musculoskeletal and Skin Diseases National Institutes of Health

The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) of the National Institutes of Health (NIH) is seeking exceptional candidates to fill the position of Chief, Cartilage Biology Program in the Intramural Research Program (IRP) of NIAMS, NIH. The successful candidate will establish a cartilage biology/osteoarthritis program utilizing the unique resources afforded by the IRP. We are interested in outstanding scientists with an extensive record of productive work in cartilage biology and/or osteoarthritis with a substantial interest in translational research in this field. Depending on the qualifications of the successful candidate, the appointment may be made as a tenured or tenure-track investigator with additional funded positions.

Candidates must have either an M.D. or Ph.D. degree. Salary and resources will be commensurate with the qualifications and experience of the candidate.

Applicants should submit curriculum vitae, bibliography, statement of research interests, and the names of three references to:

Dr. Peter Lipsky c/o Scott Sigley, NIAMS, HRMB Building 31, Room 4C13 31 Center Drive, MSC 2350 Bethesda, MD 20892-2350 or E-mail ss403p@nih.gov

Applications must be postmarked by 1/31/00

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GRADUATE PROGRAMS



The University of Tennessee, Knoxville-Oak Ridge National Laboratory

## Genome Science and Technology Graduate Program

The new Genome Science and Technology (GST) Graduate Program is designed to focus on developments in the biological and computational sciences that stem from genome sequencing efforts. The knowledge of complete genomes is revolutionizing the biological sciences, leading to new discoveries in comparative genomics, the health sciences, and environmental biology. GST students will be trained in emerging areas of genomics, structural biology, proteomics, computational biology/bioinformatics, and bioanalytical technologies.

The GST program takes advantage of the faculty, facilities, and research programs at The University of Tennessee, Knoxville and the Oak Ridge National Laboratory. This novel program combines an academic environment with the team-oriented approach to large research initiatives at the national laboratory. Faculty members at the two campuses have expertise in cutting-edge research utilizing mammalian genetics and mutagenesis, spectroscopy, high field NMR, x-ray crystallography, computational modeling, mass spectrometry, neutron scattering, and microarray technology. Various biological model systems are investigated, featuring the Oak Ridge National Laboratory Mouse Genetics Research Facility, one of the world's largest resources for studies in mouse genetics and mutagenesis for functional genomics.

We are seeking outstanding students with backgrounds in the biological, physical or computational sciences. Graduate student stipends are \$18,000 with full tuition waiver.

To apply visit: <a href="http://lsd.ornl.gov/gst/">http://lsd.ornl.gov/gst/</a> Graduate Program in Genome Science and Technology Dr. Jeffrey M. Becker, Director (<a href="jbecker@utk.edu">jbecker@utk.edu</a>) 1060 Commerce Park Oak Ridge, TN 37830-8026

UTK is an EEO/AA/Title VI/Title IX/Section 504 /ADA/ADEA Employer. ORNL, a multipurpose research facility managed by Lockheed Martin Energy Research Corporation for the U.S. Department of Energy, is an equal opportunity employer committed to building and maintaining a diverse work force.

#### MARINE ECOPHYSIOLOGIST University of Delaware College of Marine Studies

The Graduate College of Marine Studies (CMS) at the University of Delaware invites applications for a tenure-track ASSISTANT PROFESSOR position in marine ecophysiology to be located at the Hugh R. Sharp Campus in Lewes. The successful candidate will be expected to develop an innovative, externally funded research program, contribute to graduate education through teaching and advisement of students, and interact across the broad spectrum of research in the College. We are seeking candidates who use the techniques of biochemistry, physiology, and molecular biology to investigate the dynamics in heterotrophic protist, phytoplankton, and/or macro-algal communities. The area may include investigations of toxic algal blooms, nitrogen fixation, or coastal eutrophication. We anticipate that the candidate will start in the fall semester of 2000. Interested individuals should send a curriculum vitae, a statement of research and teaching interests, and the names, addresses, telephone, FAX, and e-mail contacts for at least three references to: John L. Gallagher, Grad-uate College of Marine Studies, University of Delaware, 700 Pilottown Road, Lewes, DE 19958-1298. The selection process will begin 15 February 2000 and will continue until the position is filled. Information about CMS can be found at website: http://www.ocean.udel.edu. The University of Delaware is an Equal Opportunity Employer that encourages applications from minority group members and women.

#### DEPARTMENT OF BIOLOGICAL SCIENCES

The Department of Biological Sciences seeks a fulltime tenure-track biotechnologist at the ASSIST-ANT PROFESSOR level beginning fall semester 2000. Requirements: Ph.D. in biological sciences, a strong commitment to undergraduate teaching, and expertise in biotechnology techniques and applications, as well as concepts. Final determination will be based upon successful interview, which may include teaching demonstration performance. Experience in recombinant DNA, DNA preparations, PCR, cloning, gene expression, and genomic mapping is strongly preferred. Teaching experience is preferred in biological sciences. This individual may be asked to teach Introduction to Biotechnology, Introduction to Molecular Biotechnology, Applied Microbiology, and also basic biology courses. Applicants should specify the biotechnology position and submit a curriculum vitae, transcripts, and three letters of reference to: Raymond G. Milewski, Chair, Search and Screen Committee, Department of Biological Sciences, East Stroudsburg University, East Stroudsburg, PA 18301. E-mail: ray.milewski@po-box.esu.edu. Deadline for receipt of applications is January 10, 2000. Visit our home page at website: www. esu.edu. ESU is an Equal Opportunity Employer. Minorities and women are strongly encouraged to apply.

The Metabolism Branch, Division of Clinical Sciences, National Cancer Institute, National Institutes of Health, in Bethesda, Maryland, seeks an experienced LABORATORY TECHNICIAN wishing to work in a challenging research environment. The ideal candidate will have knowledge of: recombinant DNA technology, including analysis of DNA and RNA, as well as knowledge of gene cloning; library construction and screening; production of recombinant proteins in prokaryotic and eukaryotic cells; screening of cDNA expression libraries; transient and stable transfection of eukaryotic cells; and RT-PCR. Other required skills include experience in radiolabeling of cellular proteins followed by immunoprecipitations and SDS-PAGE analysis and IP/immunoblot techniques. Additionally, the candidate will have good organization skills, effective verbal and written communication skills, and familiarity with computers. Salary range will be approximately \$40,700 to \$55,000. Interested candidates should send résumé with cover letter to: Jean Decker, National Institutes of Health, NCI, Building 10, Room 4N115, Bethesda, MD 20892-1374. NIH is an Equal Opportunity Employer.

#### **POSITIONS OPEN**

ASSISTANT PROFESSORS: The Department of Physiology invites applications from outstanding scientists with Ph.D., M.D., or equivalent degrees for three tenure-track Assistant Professor positions. Of particular interest are candidates who will develop independent research programs in integrative biology using genetic engineering approaches to study physiological processes in tissues and whole animals. Additional areas of interest include molecular and biophysical approaches to cell physiology involving the fields of motility and the cytoskeleton in addition to transport and ion channels. However, the excellence of the successful candidates is more important than the particular area of research. These positions are part of the continuing growth of the department at one of the country's leading academic medical centers and will be supported by significant laboratory space, competitive salaries and exceptional start-up packages. The University of Texas Southwestern faculty includes four Nobel Prize winners and 11 members of the National Academy of Sciences and supports more than 1,900 research projects annually totaling more than \$160 million. Applicants should submit a curriculum vitae, a brief statement of research plans, and arrange to have three letters of reference sent to: James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040. An Affirmative Action/Equal Opportunity Employer.

### ASSISTANT/ASSOCIATE PROFESSORS VIROLOGY, BACTERIAL PATHOGENESIS

Two tenure-track positions. Virology candidates should have expertise in areas such as viral pathogenesis, gene regulation, vector and/or vaccine development, or tumor viruses. Bacterial pathogenesis candidates should have expertise in areas such as pathogenic mechanisms, gene regulation, or antibiotic resistance. Assistant Professor applicants will be judged on their potential to develop a vigorous independent research program that can attract extramural funding. Associate Professor applicants must have a significant publication record and extramural funding. Candidates will be expected to teach medical and graduate students and direct dissertation research. The position offers opportunities to interact with scientists at the Karmanos Cancer Institute and Center for Molecular Medicine and Genetics as well as faculty with programmatic ties to a number of areas, including vision and neurosciences. An attractive start-up package will be available. Submit curriculum vitae, statement of research interests, and a list of three references by March 1, 2000, to: Dr. Paul C. Montgomery, Professor and Chair, Department of Immunology and Microbiology, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, MI 48201. Wayne State University is an Equal Opportunity/ Affirmative Action Employer. Minority and female candidates are encouraged to apply.

#### MARINE ECOLOGIST ONE-YEAR BIOLOGY POSITION

Gettysburg College Biology Department is seeking a Marine Ecologist with a Ph.D. required by time of appointment for a one-year position beginning August 2000. The successful candidate will teach marine ecology, a sophomore/junior level course in the person's area of expertise (e.g., biostatistics) and in the first-year course sequence in biology. Enthusiasm for teaching and effective communication skills are required. There may be opportunity for the successful applicant to involve undergraduate students in his, her research program. Gettysburg College is a highly selective liberal arts college located within 90 minutes of the Washington/Baltimore metropolitan area. Please send a curriculum vitae, statement of teaching and research goals, and names of three references, at least one of whom can address the candidate's teaching abilities, to: Dr. Sherman S. Hendrix, Department of Biology, Gettysburg College, Gettysburg, PA 17325, by January 15, 2000. Applications by e-mail will not be accepted. The College seeks to promote diversity in its community through its Affirmative Action/Equal Opportunity Programs; included in an attractive benefits package is a modest Partner Assistance Program.

#### POSITIONS OPEN

#### DEAN, SCHOOL OF APPLIED SCIENCE

The University of Southern Maine invites nominations and applications for the position of Dean of the School of Applied Science. We seek individuals that can bring leadership to the school and who share a commitment to promoting and maintaining a climate of academic excellence, diversity, and tolerance. Substantial new funding from state and other resources affords the new Dean the opportunity to develop and significantly impact the future growth and direction of the School of Applied Science. The Dean works directly with approximately 30 full-time faculty and staff to implement the instructional programs and educational objectives of the School and to develop excellence in teaching and scholarly research. The School enrolls approximately 500 undergraduates and 50 graduate students. Qualifications: Required: earned doctorate. Preferred: full-time teaching experience, demonstrated ability in budget and resource allocation, experience in curriculum development and achievement in research scholarship, and service commensurate with an appointment as PROFESSOR in the School of Applied Science. Excellent communication and managerial skills are required. Send letter of application or nomination, a curriculum vitae, and the names of three references (contacted only by permission) to: Chair, Dean Search Committee, USM, 100 John Mitchell Center, Gorham, ME 04038. Review of applications will begin January 3, 2000, and continue until the position is filled. For complete information, visit website: www.usm.maine.edu/ hrs/jobs/faculty.htm.

#### ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PHYSIOLOGY

Tenure-track, 12-month, state-funded position as Assistant/Associate or Full Professor. Anticipated start date is July 1, 2000. Position is revised/readvertised. Possibility for joint appointment in Internal Medicine and the Cardiovascular Research Institute. Applicant must have doctoral degree, training, or experience in cell and molecular biology and at least two or more years of postdoctoral experience. Seeking an excellent scientist who will complement our existing strengths in the biology of the vascular wall, neural control of the cardiovascular system, membrane ion transport, and epithelial cell biology. Our departmental faculty's research involves cellular, molecular, and systems-oriented approaches. Potential to develop and sustain a strong, extramurally funded, independent research program is an important selection criterion. Further collaboration opportunities exist throughout the College and Cardiovascular Research Institute in areas of neurocardiology, atherosclerosis, and cancer in a growing research community. Ample start-up package, excellent benefits, competitive salary, and beautiful location in the Appalachian Mountains. Candidates should submit a letter, curriculum vitae, and names of three references by March 1, 2000, to: Dr. William L. Joyner, Professor and Chair, Department of Physiology, James H. Quillen College of Medicine, East Tennessee State University, Box 70576, Johnson City, TN 37614-0576. Applications accepted for review until position is filled. An Affirmative Action/Equal Opportunity Employer.

#### RESEARCH SCIENTIST-1999-58 IMMUNOLOGIST

Corixa Corporation is a biotechnology company that is discovering and developing vaccines and therapies for cancer and infectious diseases. The Immunology Department is seeking a Scientist with experience in the generation of T cell responses. The position will emphasize in vitro human T cell responses to tumor antigens, including the study of allogeneic graft versus tumor responses. Relevant experience may include studies of murine or human T cells, APC, or animal models. The applicant must have a Ph.D. and at least five years of related experience. Competitive salary and benefits. Please send curriculum vitae, statements of research interests, experience, and names of three references by January 3, 2000, to: Corixa Corporation, Attn: 1999-58, 1124 Co-lumbia Street, Suite 200, Seattle, WA 98104. FAX: 206-754-5715. Website: www.corixa.com. An Equal Opportunity Employer



## Management/Program Analyst

The National Institutes of Health (NIH), located in Bethesda, Maryland, is the world's largest biomedical research facility. The Office of Loan Repayment and Scholarship (OLRS), within the Office of Intramural Research, Office of the Director, NIH, is seeking an experienced individual to serve as a management/ program analyst responsible for the analytic, programmatic, and managerial support related to the activities of the OLRS. The OLRS manages the NIH Loan Repayment Programs and the NIH Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds. We seek an experienced writer, someone who can draft regulations and manual issuances, and general correspondence. Our team of professionals seeks a colleague who is a self-starter, with outstanding time management skills, one who thrives under deadlines and takes pride in their work product. Additional information regarding these programs is available on the Internet at <a href="http://ugsp.info.nih.gov">http://ugsp.info.nih.gov</a> and <a href="http://ugsp.info.nih.gov">http://ugsp.info.nih.gov</a> and <a href="http://ugsp.info.nih.gov">http://ugsp.info.nih.gov</a>

This position is classified as a Management and Program Analyst, GS-0343. The starting salary for GS-12 is \$48,796 and the starting salary for GS-13 is \$58,027 (includes locality pay and pay will increase approximately 4.8% in 1/00). Application materials are available now on the Internet at <a href="http://careerhere.nih.gov/CHPublic/hrvacmenu.taf">http://careerhere.nih.gov/CHPublic/hrvacmenu.taf</a> or via facsimile by calling 301-402-4111. Completed applications must be received or postmarked no later than 12/20/99. This is vacancy announcement OD-99-7137, fax ID#97137.

NIH is an Equal Opportunity Employer, dedicated to building a diverse community in its training and employment programs.

#### **ANIMAL CELL GENETICS**

Newly headquartered in the centrally located biotechnology complex of One Kendall Square, Cambridge, MA, Genetica is a rapidly growing company focused on the development and deployment of novel genetic technologies.

DIRECTOR: Technology Development

We are seeking a scientist with proven ability to innovate and develop novel biological technologies to lead the technology development group at Genetica. The program includes improvements to our existing proprietary retroviral tools (MaRX, see Hannon et al., Science 283:1129-1130, 1999), integration of novel anti-sense approaches into MaRX and the deployment of MaRX and related technologies into animals.

TEAM LEADER: Early Cancer Markers Program

We are seeking an experienced scientist with demonstrated leadership and program management ability to run a program on the discovery and utilization of early markers for cancer detection. The project will deploy proprietary Genetica technologies (MaRX and a secretion trap derivative) and will also require collaborative liaisons with leading cancer institutions. We are part of an NCI-funded early detection research network.

STAFF SCIENTIST: Stem Cell Program

We are expanding our program on genetic manipulation of human stem cells using MaRX and related technologies. We seek a Ph.D. level scientist with experience in isolation, manipulation and assay of human stem cells.

These positions are assumable in the New Year in Cambridge. To apply, please fax or e-mail your Curriculum Vitae to:

Genetica, Inc. Attn: Judi Smith Fax: 516-367-8874

E-mail: smith@genetica-inc.com





## Faculty Position in Developmental Neurobiology

An Assistant Member position is available in the Department of Developmental Neurobiology at St. Jude Children's Research Hospital (SJCRH). Preference will be given to applicants with research programs that complement the Department's existing strength in mammalian neurodevelopment. In particular, investigators studying neuronal stem cell biology are encouraged to apply. It is anticipated that successful applicants will have graduated within the past five years and have already achieved recognition through high profile publications.

SJCRH offers a very competitive package for incoming junior faculty. This includes: salaries for the investigator and their personnel; new laboratory space; as well as start-up and continuing support for equipment and consumables. In addition, appointees have access to a range of institutional core facilities for protein and nucleic acid chemistry, microarray analysis, gene knock-out and transgenic technologies. The Department is already well equipped for most aspects of anatomy and histology, cell and molecular biology, transgenics and electrophysiology.

There are presently seven faculty members in Developmental Neurobiology with the following research interests:

Tom Curran (Chairman)

- Molecular basis of neurodevelopment

Jim Morgan

- Neuronal death and regeneration

Richard Smeyne

- Molecular models of neurodegenerative disease

Michisuke Yuzaki

- Glutamate signaling in cerebellar plasticity

Suzanne Baker

- Aberrant signal transduction in tumorigenesis

lian Zu

- Genetics of hearing and vision

Cornelia Kurschner

- PDZ proteins and neuronal function.

Those interested in joining this multidisciplinary department should arrange to have their CV, a brief research proposal and three letters of recommendation sent to the Developmental Neurobiology Search Committee, Attention: Ms. Carol Jacks, St. Jude Children's Research Hospital, 332 N. Lauderdale St., Memphis, TN 38105-2794. SJCRH is an equal opportunity employment/affirmative action employer.

Novartis Agricultural Discovery Institute Inc. (NADII) is one of the largest single fully funded research endeavors dedicated to agricultural genomics. We apply cutting-edge biotechnology to match genes with traits and provide advanced technologies that can be used widely in agribusiness research for the development of gene-based products. We currently seek the following exceptional individual to join NADII's growing team:

#### SENIOR SOFTWARE SCIENTIST

Successful candidate will be responsible for interfacing proteomics and metabolite (biochemical pathways) data with sequence and functional genomics information. Further responsibilities include the development of informatics tools for data analysis and integration with bioinformatics platform. This position will primarily interface with other team members and the bioinformatics group at NADII. Candidates are expected to have a degree or formal training in computer science with a Ph.D. or M.S. degree in a relevant field (chemistry, biochemistry, or biology desirable). Candidates are required to have three-plus years of experience developing software with a highlevel language (C, C++, Java), software engineering experience using C, C++ or Java, working experience with mass spectrometrical data, and software development and experience in analyzing data.

NADII offers excellent compensation and a great benefits package, including 401(k). For immediate and confidential consideration, please send résumé, including salary history and expectations to: Novartis Agricultural Discovery Institute, Inc., HR Dept. SSS/EG-UT, 3115 Merryfield Row, Suite 100, San Diego, CA 92121-1102. FAX: 858-812-1102. Equal Opportunity Employer.

#### RESEARCH SCIENTIST

Ferring is an international pharmaceutical company specializing in products for the treatment of hormone-related disorders (website: www.ferring.com). Ferring is continuing to discover and develop new drugs and is dedicated to an innovative workplace. The biology department at the San Diego division of Ferring has an immediate opening for a self-motivated Research Scientist to join a multidisciplinary discovery team. The successful candidate will be responsible for the development, validation, and implementation of screening assays and new technologies to support drug discovery programs. Qualified candidates will also participate in team efforts to identify and validate novel, therapeutically relevant targets. Two or more years of relevant and proven experience of in vitro cell-based biochemical assays (e.g., receptor-ligand interactions, enzyme assays, immunoassays, signal transduction, and cell proliferation) are required. Experience in autoradiography, HPLC, and protein expression would be an advantage. An individual with a Ph.D. and prior experience in the biotechnology or pharmaceutical industry is preferable. Important qualities include the desire and ability to interact with other ongoing projects within and across the departments and excellent data management/reporting and communication skills. Ferring Research Institute Inc. offers competitive compensation and benefits packages. Qualified applicants are encouraged to apply in writing. Send or FAX a cover letter, résumé, curriculum vitae, salary history, and the names of three references to: Ferring Research Institute Inc., 3550 General Atomics Court, 2-422, San Diego, CA 92121. FAX: 858-455-3910.

#### DIRECTOR ENVIRONMENTAL SCIENCES

Arkansas State University seeks applicants at the ASSOCIATE/FULL PROFESSOR level to provide leadership for a multidisciplinary, doctoral-level environmental sciences program. For a more detailed description of the position and application instructions, see website: www.clt.astate.edu/evs. ASU is an Equal Opportunity/Affirmative Action Employer.

#### POSITIONS OPEN

## THREE ASSISTANT PROFESSOR POSITIONS IN BIOLOGY

The Department of Biological Sciences at the University of Alaska Anchorage is seeking applicants to fill three nine-month, tenure-track positions in biological sciences at the rank of new Assistant Professor to begin during the 2000/2001 academic year. These are entry-level faculty positions, and each requires the ability to contribute undergraduate or graduate teaching in at least two of the following areas of our curriculum: (1) neurobiology, (2) cell biology, (3) molecular biology, (4) genetics, (5) biology of nonvascular plants, (6) aquatic biology, (7) entomology, or (8) biometry. All positions require the Ph.D. and the potential to develop extramurally funded research in a disciplinary area compatible with existing departmental strengths in molecular biology and ecology and for relevant to our nothern location. Please submit a letter of interest referencing the position numbers, a statement of teaching and research goals, a copy of your curriculum vitae, and the names and addresses including telephone numbers and electronic mail addresses of three references qualified to comment upon your teaching and research potential to: Biology Search, Human Resources, University of Alaska Anchorage, 3211 Providence Drive, Anchorage, AK 99508. Finalists will also be required to submit official transcripts. The State Retirement Incentive Program fixes salaries for these positions (PCNs 301251, 300320, and 300325), and we are restricting our search at a level commensurate with entry-level Assistant Professors. Additional information regarding these positions is available at website: http://www.finsvs.uaa.alaska.edu/uaahrs. Review of applicants begins February 1, 2000, and continues until filled. UAA is an Affirmative Action/Equal Opportunity Employer and Educational Institution. Applicants must be eligible for employment under the Immigration Reform and Control Act of 1986. Your application with the University of Alaska is subject to public disclosure. Women and minorities are especially encouraged to apply.

#### RESEARCH COMPUTING SCIENTIST

Working as part of a team, you will provide highlevel computing support, technical assistance, and training on bioinformatics-related research applications for researchers who wish to apply computing to their research goals. You also will meet with research faculty to provide assistance in effectively utilizing local and web-based bioinformatics tools. Ideal candidates will possess a high degree of initiative and strong organization, problem-solving, and effective communication skills. We seek candidates with: Ph.D. in biomedical research environment in the application of technology to research and instruction in an academic environment required. Two-plus years of experience with web-based bioinformatics tools and public domain biological databases required. Experience with GCG on Unix and DNAStar's Lasergene also strongly preferred, in addition to familiarity with statisical applications. Intermediate Unix user skills a plus. Experience with Perl, Java, and website/CGI development a plus. Interested candidates please reference job requisition number #3373 and send a résumé and cover letter to: Harvard University Employment Office, 11 Holyoke Street, Cambridge, MA 02138.

## RESEARCH ENTOMOLOGIST/ ECOLOGIST Agricultural Research Service United States Department of Agricultur

Agricultural Research Service
United States Department of Agriculture
The Northern Plains Agricultural Research Labora-

The Northern Plains Agricultural Research Laboratory in Sidney, Montana, is seeking an entomologist or ecologist to conduct research on plant-insect interactions involving the ecology and management of grasshoppers. A Ph.D. in entomology, ecology, or related field of science is desirable. This is a permanent appointment, and U.S. citizenship is required. Applications must be postmarked by December 27, 1999. For details on the position and application procedures, see website: www.ars.usda.gov/afm/hrd/resjobs/D0W-0070. htm or contact: Charlotte Anderson, Telephone: 406-482-9432; e-mail: canderso@sidney.ars.usda.gov. USDA/ARS is an Equal Opportunity Provider and Employer.

#### POSITIONS OPEN



#### SENIOR RESEARCH ASSOCIATE

It's our solid dedication, vision, and constant search for answers that allow us to touch millions of people around the world every day. As a major division of Fortune 500 American Home Products Corporation, we help people lead healthier lives through the development of innovative pharmaceutical, vaccine, and nutritional products. We achieve this through our superior research, manufacturing, sales, and marketing capabilities. Enjoy the freedom to develop your own career while having the support of a valuable team. Utilize your three years of experience in a mucosal immunology lab working with animals in germfree facilities to deliver vaccines to animals via mucosal routes, harvest mucosal tissues/secretions, isolate cells from animal tissues, and perform cellular/humoral assays. Wyeth-Ayerst offers competitive compensation and benefits programs including stock options, child care subsidies, flex time, business casual Fridays, educational assistance, and professional development programs. Please forward your résumé with salary requirements to: Wyeth-Ayerst, 1 Great Valley Parkway, Malvern, PA 19355. Attention: KS-1199. Principals only. For more information, visit us at website: http://company.monster.com/ wyay/. Equal Opportunity Employer, Minorities/Females/ Disabled/Veterans

#### MARINE BIOLOGIST

Full-time, tenure-track ASSISTANT PROFESSOR; begins fall term 2000. Teach three undergraduate courses and associated laboratories annually, to include a freshman-level Evolution and Diversity of Life course and an advanced course in area of specialty. Initiate and maintain a research program involving undergraduates. Ph.D., expertise in marine biology, and commitment to undergraduate teaching and research required; postdoctoral experience preferred. Individuals with expertise in marine plants are especially encouraged to apply. Area of formal training can include but is not limited to: morphology, ecology, evolution, conservation biology, physiology, or systematics. To apply, submit interest letter, curriculum vitae, statement of teaching philosophy, course descriptions and research interests, and three reference letters by December 15, 1999 (extended closing date), to: Marine Biology Search, University of Puget Sound, P.O. Box 7297, Tacoma, WA 98407. An Equal Opportunity/ Affirmative Action Educator/Employer.

#### PHYSICAL CHEMISTRY, BIOPHYSICS, BIOLOGY, AND PHYSICS EXPERIMENTALISTS Postdoctoral and Research Faculty

The Wilson • Squier group at the University of California, San Diego, Department of Chemistry and Biochemistry has positions available for exceptionally talented Experimental Scientists in the following areas: ultrafast X-ray diffraction and absorption applied to chemical and biochemical dynamics and function, and new techniques in optical microscopy for spatially and temporally resolved imaging as applied to the understanding of dynamics of cellular and intercellular biomolecular and biological processes (including interneuronal communication and function). For more information about these positions and the group or to receive application process information, visit our website: http://www-wilson.ucsd.edu or e-mail: wgjobops@ucsd.edu. Positions commensurate with experience and qualifications, with salaries based on University of California pay scales. An Affirmative Action/Equal Opportunity Employer.

STAFF (ENVIRONMENTAL SCIENTIST) wanted by environmental consulting company in Reston, Virginia. Candidate should be able to conceptualize, prepare, and execute technical and economic analyses to determine quality of environmental systems. Must have M.S. in environmental science. Respond to: Office Manager, SCS Engineers, 11260 Roger Bacon Drive, Reston, VA 20190.



SYMPOSIUM CALL FOR ABSTRACTS

## Nanoscience and Nanotechnology:

**Shaping Biomedical Research** 

June 25-26, 2000 Natcher Conference Center National Institutes of Health Bethesda, Maryland

The National Institutes of Health Bioengineering Consortium (BECON) is hosting a symposium to foster scientific interchange among the nanoscience, nanotechnology, and biomedical research communities.

Plenary talks, poster sessions, and panels will provide opportunities for communication to develop and identify future applications of nanoscience and nanotechnology relative to biology and medicine. Updated information is available on the Internet at: http://grants.nih.gov/grants/becon/symposium2000.htm.

For information, contact: Mark Brown, CMP MasiMax Resources, Inc. Phone: 240-632-5618 Fax: 240-632-0519 E-mail: mbrown@masimax.com





#### Announcements

## DOES THIS SOUND LIKE YOU OR SOMEONE YOU KNOW?

"I have long been interested in science, and in helping people. During my training, I had a number of clinical experiences which convinced me that I wanted to specialize in immunology at the bench, but still have patient contact." "I was always tinkering with my toys, taking them apart, trying to fit the square peg in the round hoke. NIH is the only place to be for cutting-edge training, creativity, and pure excitement."

Has your interest always been to pursue medical research? Do the realities of staggering educational debt appear to prevent you from realizing your dreams? NIH offers a variety of clinical and basic science postdoctoral training fellowships that can be combined with educational loan repayment incentives. You owe it to yourself to know about these programs (or share the information with someone in need!) as you make your career decisions. You owe it to yourself to learn more about what NIH can do for you.

#### NIH Loan Repayment Benefits of \$35,000 per Year

NIH, the world's leading biomedical research facility, has trained thousands of qualified students in neuroscience, pathology, immunology, molecular genetics, developmental biology, cell biology, molecular biology, virology, and structural biology, to name only a few areas in our intramural research program.



For more information on the Loan Repayment Program and postdoctoral training, visit our websites at:

## http://www.training.nih.gov and http://irp.info.nih.gov



Toll Free: I-800-528-7689 • TTY: I-888-352-3001

NIH is dedicated to building a diverse community in its training and employment programs.

## Rapid Access to Intervention Development "RAID"

The NATIONAL CANCER INSTITUTE is requesting applications for the following initiative: Rapid Access to Intervention Development (RAID). RAID will make available to academic investigators, on a competitive basis, the preclinical development contract resources of NCI's Developmental Therapeutics Program. RAID is not a grant program to originating investigators. The goal of RAID is the rapid movement of novel molecules and concepts from the laboratory to the clinic for proof-of-principle clinical trials, using NCI's contract research mechanisms. RAID will assist investigators who submit successful applications by providing any (or all) of the preclinical development steps that may be obstacles to clinical translation. These may include, for example, production, bulk supply, GMP manufacturing, formulation, and toxicology. Suitable agents for RAID will include small molecules, biologics, or vaccines. There are two receipt dates for proposals per year, February 1 and August 1. Current applications must be received by February 1, with all materials submitted directly to the office listed below. For information on process and procedure, visit the web site, http://dtp.nci.nih.gov. Inquiries are encouraged, and the opportunity to clarify issues or questions is welcome. Academic investigators may have collaborations with smallbusiness partners and still qualify for RAID funding. Please note that a maximum of two distinct proposals per investigator can be submitted for each application review date. Please contact:

RAID, Office of Associate Director
Developmental Therapeutics Program, NCI
Executive Plaza North, Suite 843
6130 Executive Blvd., Rockville, MD 20852
Tel: 301.496.8720; Fax: 301.402.0831
Email: sausville@nih.gov

#### Associate Director, Radiology & Imaging Sciences Warren G. Magnuson Clinical Center National Institutes of Health

The Warren G. Magnuson Clinical Center (CC) of the National Institutes of Health is seeking a Radiologist with extensive clinical, research, and management experience for the position of Associate Director for Radiology and Imaging Sciences. The successful candidate will oversee a \$27 million budget that includes the clinical and research activities of the departments of diagnostic radiology, nuclear medicine and positron emission tomography and the laboratory of diagnostic radiology research. Substantial opportunities exist for both independent and collaborative research.

Basic Requirements: Doctor of Medicine or Doctor of Osteopathy from an accredited and approved medical school in the United States or Canada or graduation from a foreign medical school in which a U.S. equivalency from an authorized source has been obtained (ECFMG Certification) is required. Position requires a full, unrestricted license to practice medicine in a State, the District of Columbia, the Commonwealth of Puerto Rico, or a territory of the United States.

Qualifications: Board Certification in Diagnostic Radiology or Nuclear Medicine is required. Salary is commensurate with experience and level of accomplishments and will range up to \$200,000. A Recruitment Bonus of up to 25% of base pay or a Relocation Bonus of up to 25% of base pay may also be available.

Specific application procedures apply. Interested persons should send a curriculum vitae to Alice Owens at aowens@mail.cc.nih.gov by 12/20/99. Additional information about the position and the department is available at http://www.cc.nih.gov/drd/. Informal inquiries may be directed to Dr. David Henderson, Deputy Director for Clinical Care at 301-496-3515. Notice to displaced and surplus Federal employees: you must submit specific information as proof of eligibility for special selection priority. Call 301-496-6924 for more information.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

## WHEAT GENETICS AND BREEDING The Ohio State University

The Department of Horticulture and Crop Science invites applications for an ASSISTANT PROFES-SOR in a tenure-track, 12-month, 100 percent research appointment. The position is based at the OSU-Ohio Agricultural Research and Development Center Wooster Campus. Research areas of emphasis are enhancement of host resistance, agronomic performance, and end-use quality of soft winter wheat. Ability to apply tools of molecular biology, biotechnology, and/or functional/statistical genomics is essential. Opportunities for collaboration with university, industry, USDA/ARS Soft Wheat Quality Laboratory, and interdisciplinary teams to achieve crop improvement and research goals. Participation in undergraduate/graduate education in plant breeding and/or genetics is expected. Ph.D. degree in plant breeding or genetics is required, with postdoctoral experience preferred. Excellent communication and organizational skills are required. Submit application package (1) letter of application outlining research interests and qualifications, (2) complete curriculum vitae, (3) complete academic transcripts, and (4) three vitae, (3) complete academic transcripts, and (4) three letters of reference to: Dr. Richard Pratt, Department of Horticulture and Crop Science, OSU-OARDC, Wooster, OH 44691. Telephone: 330-263-3972. FAX: 330-263-3887; e-mail: pratt.3@ osu.edu. Application deadline is February 1, 2000, or until a qualified candidate is selected. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans, and individuals with disabilities are encouraged to apply.

BIOLOGIST/MICROBIOLOGIST. Full-time. tenure-track faculty position at the ASSISTANT PROFESSOR level to begin fall 2000. Teach introductory microbial biology and advanced microbiology to biology majors, medical microbiology to nursing students, and additional courses as appropriate, including courses for non-major students. Preference given for field or health-related experience and ability to direct student research. Requires Ph.D. and a commitment to science education in liberal arts setting. Whitworth is a residential, undergraduate, liberal arts institution associated with the Presbyterian Church (U.S.A.). Application deadline December 31, 1999. Send letter of interest; curriculum vitae; undergraduate and graduate transcripts (may be unofficial); and name, address, and telephone number of three references who can evaluate your teaching to: Biology Search Committee, HR-MS 0103, Whitworth College, Spokane, WA 99251. Additional materials may be required at a later date. Full position announcement and application requirements at website: www.whitworth.edu. Whitworth is an Equal Opportunity Employer.

#### FACULTY POSITIONS IN GENETICS Dartmouth Medical School

The newly established Department of Genetics at Dartmouth Medical School will be seeking 12 faculty colleagues over the next several years. Applications are now invited for the first three of these positions, rank open. We seek outstanding individuals who will bring or establish vigorous and innovative research programs where genetic approaches play a major role. Our particular interests include: (1) mammalian genetics (mouse or human)—individuals pursuing fundamental research questions in mammalian genetics that will embrace but extend beyond the era of genomics, and (2) model systems—to complement existing strengths, we are particularly interested in individuals working with Drosophila, zebrafish, or Xenopus tropicalis. Applicants should submit a curriculum vitae, a description of research accomplishments and future objectives, and should arrange to have three letters of reference sent directly to: the Faculty Search Committee, Department of Genetics, Dartmouth Medical School, 7400 Vail Building, Hanover, NH 03755-3837. Dartmouth Medical School is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and members of minority groups.

#### POSITIONS OPEN

## **U** NOVARTIS

Novartis Institute for Functional Genomics (NIFG), located in La Jolla, is developing and applying novel technologies for genomewide functional characterization. We apply cutting-edge biotechnology to discover the function of novel genes critical to diverse biological processes and small-molecule modulators of these gene products. We currently have the following opportunities available for Ph.D.-level scientists:

#### STAFF SCIENTIST, IMMUNOLOGY

This staff scientist position requires three-plus years of postdoctoral experience and a strong record of accomplishments in the field of immunology. Individuals with experience in the application of current genomics techniques, including RNA expression profiling, cell-based screens, and transgenics/knockouts to solve critical problems in immunology are especially encouraged to apply.

#### POSTDOCTORAL FELLOW, STEM CELL BIOLOGY

The project involves using state-of-the-art tools, such as RNA profiling, retroviral libraries, and cell-based high-throughput screens, to determine the molecular basis of stem cell self-renewal and lineage commitment. The areas of focus will be hematopoiesis and ES cell differentiation. The ideal candidate would have a strong background in both molecular biology and stem cell biology and be adept at performing experiments on a genomewide scale.

NIFG offers an excellent compensation and benefits package, including a 401(k) plan. For immediate and confidential consideration, please send curriculum vitae, including salary requirements, summary of past accomplishments, and the names of references to: Novartis Institute for Functional Genomics, HR Dept. MPC, 3115 Merryfield Row, Suite 100, San Diego, CA 92121-1102. FAX: 858-812-1584. Affirmative Action/Equal Opportunity Employer.

BEHAVIORAL NEUROSCIENCE: The Department of Psychology at Yale University announces searches for new FACULTY MEMBERS in behavioral neuroscience. Preference will be given to candidates whose interests would complement the department's existing focus on learning and memory or would provide interactions with faculty in cognitive neuroscience. Appointments may be made at either the tenured or nontenured level. It is expected that the candidates will have, or show promise of, an exceptional program of research. In addition, the successful candidates should be able to demonstrate excellence in teaching at both the undergraduate and graduate levels. All applicants should send a letter of application, a curriculum vitae, and one copy of selected publications. Applicants to the nontenured positions should arrange for three letters of recommendation to be sent. Applicants to the tenured positions should send the names and addresses of at least three references. Materials should be sent to the Chair, Behavioral Neuroscience Search Committee, Department of Psychology, Yale University, 2 Hill-house Avenue, P.O. Box 208205, New Haven, CT 06520-8205. The Search Committee will begin reviewing applications on November 15, 1999. Applications must be received by January 15, 2000. Yale University is an Equal Opportunity/Affirmative Action Employer, and applications from women and minority group members are especially encouraged.

## POSTDOCTORAL POSITION IN DEVEOPMENTAL IMMUNOLOGY

A Postdoctoral position is available immediately for a recent Ph.D. with experience in cellular immunology and molecular biology to study lymphocyte differentiation using an *in vitro* system of ES cell differentiation. Send curriculum vitae and names of three references to: Dr. J. C. Zúñiga-Pflücker, Department of Immunology, University of Toronto, MSB Room 5271, Toronto, ON M5S 1A8, Canada. FAX: 416-978-1938.

#### POSITIONS OPEN

PARASITOLOGIST. Tenure-track ASSISTANT PROFESSOR of biology. The primary teaching assignments will be in content areas of general parasitology at the upper division level and graduate courses in the area of candidate's specialization. Other assignments could include courses such as pathophysiology, immunology, or entomology as appropriate. In addition, the candidate is expected to participate in the non-majors, general biology courses (General Education) at both the lower division and upper division levels and, when appropriate, the lower division service courses in physiology. Contributions to improving non-majors biology curricula are strongly encouraged. The candidate should be qualified to rotate into one or more of the biology majors' core curriculum courses, i.e., introductory biology, ecology, genetics, cellular biology, and evolution. Exact course assignments will depend on the candidate's qualifications and the needs of the department. The successful candidate must develop a research program involving undergraduate and graduate M.S. students and must seek extramural funding for their research. The department has a biotechnology certificate program at the graduate level to which the successful candidate may wish to contribute.
Appointment begins August 2000. Request an official application and send curriculum vitae including an e-mail address, if available. Three letters of reference, transcripts, and statements of both teaching interests/ philosophy and research interests should be sent to: Dr. Thomas E. Mallory, Chair, Department of Biology, College of Science and Mathematics, California State University, Fresno, 2555 East San Ramon Avenue M/S SB73, Fresno, CA 93740-8034. E-mail address: tomma@csufresno.edu; FAX: 559-278-3963; website: http://erasmus. biol.csufresno.edu. For fullest consideration, have application in by February 15, 2000. Equal Opportunity/ Affirmative Action Employer.

#### DIRECTOR OF VIRAL VECTOR CORE FACILITY

The Viral Vector Core Facility was established in 1994 as part of the Gene Therapy Center under Professor Jude Samulski. The Facility is producing rAAV, rAdenovirus, rRetrovirus, and rLentivirus for Investigators and commerical structures all over the world. The Viral Vector Core Facility works closely with the research labs located in the University of North Carolina Gene Therapy Center improving vector production and modifications that translate into improved delivery systems. Check our website at http://www. med.unc.edu/wrkunits/3ctrpgm/genether/gtccore. htm. We are looking for a Ph.D. or M.D. with a strong background in virology with at least two years of postdoctoral experience. The successful candidate should have experience in virology, vectorology, mo-lecular biology, and histology. She or he needs to be able to carry out independent research projects, oversee laboratory training, implement new techniques involving vector production, and manage a working group of six to nine individuals ranging from student assistants to research specialist technicians. Ability to write and secure grants is preferred, as well as experience in GMP production. This position will be classified as a nonfaculty **RESEARCH ASSOCIATE**. Interested parties should submit a curriculum vitae and names, addresses, and telephone numbers of three references to: Dr. R. Jude Samulski, Gene Therapy Center, CB 7352, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7352. Email: rjs@med.unc.edu. The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

RESEARCH INVESTIGATOR: Academic/working knowledge of immunology/biochemistry. Experience in apoptosis, autoimmunity, endocrine disease, and animal models. Contact: Internal Medicine-Allergy, University of Michigan Medical Center, 9220 MSRB III, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0648. FAX: 734-936-2990; e-mail: cverweij@umich.edu. A nondiscriminatory Affirmative Action Employer.

## Tenure Track Position at National Institute on Aging National institutes of Health

The Laboratory of Biological Chemistry of the National Institute on Aging is seeking to recruit a tenure-track scientist to establish an independent research program relevant to aging and in an area complementary to those of existing programs within the Laboratory. The Laboratory has an active and collaborative research environment in the general area of molecular and cellular biology. It includes groups focusing on signal transduction processes regulating cellular responses to environmental signals, transcriptional and posttranscriptional mechanisms of gene expression, molecular basis of cancer, and growth regulation and cell cycle control. Candidates must have a M.D., Ph.D., or M.D./Ph.D, and strong research credentials including a substantial publication record. Applicants should send CV and bibliography, 1-2 page summary of research interests and goals. and three letters of recommendation

Chair, LBC Tenure Track Search Committee, Vacancy # NIA 99-42, c/o Personnel Office Box 26, 5600 Nathan Shock Drive, Baltimore, MD 21224-6825

Applications must be postmarked by January10, 2000 NIH is an Equal Opportunity Employer

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### Clinical Chemistry Product Development

At Bayer Diagnostics, one of the world's premier diagnostic companies, we make a positive difference in human health every day. If you want to make a difference, come join us at our Tarrytown, NY Global Headquarters, as we design health care systems of the future. Due to our tremendous growth, we have challenging opportunities for Scientists with a degree in Chemistry (BS-Ph.D level). Product development experience a definite plus. Immunoassay experience required. These are excellent opportunities to utilize your exceptional talents in medical diagnostics.



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#### NATIONAL INSTITUTES OF HEALTH NATIONAL EYE INSTITUTE

#### **Job Opportunities**

The National Eye Institute Intramural Program at the NIH campus, Bethesda, MD., is seeking highly qualified Postdoctoral Fellows, Research Associates and Staff Scientists in the following areas:

- Molecular Biology
- Cell Biology
- Immunology
- Psychophysics
- Biochemistry

Salaries range from \$27,500 to \$118,400 per annum, based on experience and type of appointment.

NEI offers an extensive benefits package that you may be eligible for, depending on the appointment mechanisms: Health Benefits, Life Insurance, Retirement Benefits, Annual and Sick Leave, Formal Training Program, Recruitment Bonus, Retention Allowance, Relocation Allowance, Loan Repayment Program, and Travel Benefits.

Candidates interested in specific job opportunities at the NEI may visit the NEI web site at http://www.nei.nih.gov/listing the most current positions available.

NIH/NEI is an Equal Opportunity Employer



## LABORATORY OF MOLECULAR BIOLOGY NIDDK, NIH

A Tenure-Track position is available in the **Laboratory of Molecular Biology, NIDDK**. Applicants should have an outstanding record in macromolecular crystallography. The LMB is a multidisciplinary laboratory with a strong component of structural biology. There is limited space available, but the successful candidate would have access to a number of shared facilities, including cold rooms and local X-ray equipment. Applicants should have a doctoral degree and postdoctoral training. We are especially interested in scientists planning to establish a research program in DNA recombination.

Send applications to:

#### **David Davies**

Crystallography Search Committee Bldg 5, Room 324 NIDDK, NIH Bethesda, MD 20892-0560

Please send cv, summary of proposed research, and arrange for three letters of reference to be sent separately no later than **Dec. 31, 1999.** 



#### MARY BABB RANDOLPH CANCER CENTER

### SCIENTIFIC DIRECTOR, LUNG CANCER PROGRAM

A dynamic Scientific Director is sought to lead the research efforts of the Sarah Crile Allen and James Frederick Allen Comprehensive Lung Cancer Program of the Mary Babb Randolph Cancer Center at West Virginia University. Appointment will be at the ASSOCIATE PROFESSOR or PROFESSOR level depending on applicant qualifications. Individuals should have an M.D., Ph.D., or M.D./Ph.D. and have an established research program in basic lung cancer biology or genetics. Opportunities exist for collaboration with other laboratory and clinical researchers within the cancer center, the Robert C. Byrd Health Sciences Center, and the lung disease programs of the National Institute for Occupational Safety and Health, which are located on the WVU Health Sciences Center Campus. Generous support is available for further development and expansion of the scientific base of this program. The Robert C. Byrd Health Sciences Center has a full complement of academic programs in the clinical and basic sciences and offers the advantage of the university setting within a small city with abundant outdoor activities available. Applications will be reviewed until the position is filled. Applicants should send a copy of curriculum vitae, a letter of interest with description of their current research program, and a list of three individuals who can provide references to: Fred R. Butcher, Ph.D., Director, MBR Cancer Center, P.O. Box 9300, West Virginia University, Morgantown, WV 26506-9300. West Virginia University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### TENURE-TRACK FACULTY POSITION IN CELL BIOLOGY

A tenure-track faculty position at the ASSISTANT PROFESSOR level is available within the Musculoskeletal Research Laboratory of the Department of Orthopaedics and Rehabilitation, Pennsylvania State University College of Medicine. The successful candidate will be expected to develop an independent, extramurally funded research program focusing on cell biology within the musculoskeletal system. This position requires a Ph.D. in physiology or a closely related field and at least two years of postdoctoral training. This is a unique opportunity to join a highly interactive, multidisciplinary research group including orthopaedic surgeons, bioengineers, cell biologists, and molecular biologists. A joint appointment in an appropriate basic science department is also available. Send curriculum vitae, statement of research interests, and names of three references to: Vincent D. Pellegrini Jr., M.D., Professor and Chair, Department of Orthopaedics and Rehabilitation, Penn State University College of Medicine, 500 University Drive, P.O. Box 850, MC H089, Hershey, PA 17033-0850. Telephone: 717-531-4803; FAX: 717-531-7583; e-mail: vpellegrini@psghs.edu.

POSTDOCTORAL RESEARCH ASSOCIATE position to study regulation of the growth hormone receptor gene (*J. Biol. Chem.* 1998:24760; 1999 in press). Conditional knockout models a priority. Requirements: Ph.D. with experience in molecular biology. Send curriculum vitae and three references to: Mark Sperling, Children's Hospital, 3705 Fifth Avenue, Pittsburgh, PA 15213. E-mail: masp+@pitt.edu.

POSTDOCTORAL in the lab of Lori Bernstein at Texas A&M College of Medicine, Department of Pathology, to study novel multicomponent complexes between AP-1 transcription factors and MAP kinase-related proteins. Publication record in international journals and expertise in protein biochemistry and molecular biology required. Send curriculum viate and names of three references to: Ibernstein@tamu.edu. Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

GENETICIST. ASSISTANT PROFESSOR, tenure-track: shared teaching responsibilities in genetics (currently serving majors in biomedical science, cell and molecular biology, and biotechnology), a recombinant DNA course, and a graduate course in area of expertise. Participation in introductory biology courses will be expected; demonstrated ability to teach and/or perform effectively, scholarly achievement or research, continued preparation and study, contribution to student growth and development, and service to the university and community. Ph.D. in genetics or related area and postdoctoral or equivalent experience required. Preference to candidates with successful postsecondary teaching experience, strong commitment to teaching (B.S./M.A.) and research programs involving undergraduate and graduate (M.A.) students. Advising and committee participation is expected. The successful candidate will have demonstrated ability to teach and work with persons from culturally diverse backgrounds. Send letter of application including statements of research plans and teaching philosophy; curriculum vitae; transcripts (copies acceptable for initial screening); and the name, telephone number, postal and e-mail addresses of three references. All materials must be postmarked by January 7, 2000. Submit materials to: Chair, Department of Biological Sciences, St. Cloud State University, 820-Fourth Avenue South, MS-262, St. Cloud, MN 56301-4498. We may be contacted by Telephone: 320-255-4736; FAX: 320-255-4166; ore-mail: Biology@StCloudState. edu or website: www.StCloudState.edu/~biol. Materials received after the postmark date are not guaranteed consideration. SCSU is committed to excellence and actively supports cultural diversity. To promote this endeavor, we invite individuals who contribute to such diversity to apply, including minorities, women, GLBT, persons with disabilities, and veterans.

#### TOXICOLOGIST

The Department of Anatomy, Pathology, and Pharmacology, College of Veterinary Medicine, Oklahoma State University, invites application for a tenuretrack position in toxicology at the rank of ASSIST-ANT, ASSOCIATE, or FULL PROFESSOR. Applicants should have a Ph.D. in toxicology or a closely related science. Responsibilities include the development of a strong extramurally funded research program and participation in the CVM graduate educa-tion program. The successful candidate will be encouraged to participate in the development of an interdepartmental research program in toxicology. Opportunities exist for collaboration with other research faculty in the CVM, the University of Oklahoma Health Sciences Center, and other OSU departments involved with environmental and applied toxicology research. Interested individuals should send an application including curriculum vitae, statement of professional goals, and names of three references to: Dr. Carey N. Pope, Professor, Department of Anatomy, Pathology, and Pharmacology, College of Veterinary Medicine, Stillwater, OK 74078. Telephone: 405-744-6744. To ensure full consideration, applications should be received by February 1, 2000, and review of applications will continue until a suitable candidate is identified. OSU is an Equal Opportunity/Affirmative Action Employer that encourages applications from members of minority groups.

An NIH-funded POSTDOCTORAL POSI-TION is available immediately to investigate modulation of bone and cartilage remodeling primarily through regulation of matrix metalloproteinases by reproductive hormones and mechanical strain. Areas of emphasis include transfections, protein purification, cloning, modulation of receptor and receptor binding, isolation of receptors, and animal studies. Experience in molecular and cell biology and animal experimentation is essential. Good verbal and writing skills are also required. Please send curriculum vitae and names of three references to: Dr. Sunil Kapila, Department of Growth and Development, University of California San Francisco, San Francisco, CA 94143-0640. E-mail: skaps@itsa.ucsf.edu. UCSF is an Affirmative Action/Equal Opportunity Employer.



#### ARIZONA STATE UNIVERSITY MOLECULAR GENETICIST ARIZONA STATE UNIVERSITY

We invite applications for a tenure-track position at the ASSISTANT PROFESSOR level in the Department of Biology, beginning fall 2000. A Ph.D. in related area and postdoctoral experience are required. Candidates for the molecular genetics position must have a primary research interest and record of accomplishments in the molecular genetics of eukaryotes. The successful candidate will join an expanding group of biologists in related areas (website: http://ls.la. sau.edu) and will have the opportunity to participate in a new initiative in basic biomedicine. Candidates will be expected to establish an active research program, to participate in graduate and undergraduate teaching, and to supervise graduate students in the Biology or Molecular and Cellular Biology graduate programs.

Applicants must submit a curriculum vitae, copies of selected reprints, a concise statement of present and projected research plans, and a statement of teaching interests, and arrange to have three letters of reference sent directly to: Chair of the Molecular Genetics Search Committee, Department of Biology, Arizona State University, Box 871501, Tempe, AZ 85287-1501. Review of applications will begin December 15th, 1999, and thereafter on the first and fifteenth of each month until the position is filled. Arizona State University is an Affirmative Action/Equal Opportunity Employer.

#### INVESTIGATOR POSITIONS AVAILABLE (TENURED OR TENURE TRACK) Hematology/Hematopoiesis/Stem Cell Biology Medicine Branch, National Cancer Institute

The Experimental Transplantation and Immunology Department of the Medicine Branch, Division of Clinical Sciences, NCI, invites applications for a laboratory-based Investigator position in hematopoiesis/stem cell biology: Candidates must have an M.D. or Ph.D., a strong record of accomplishment, and the potential of establishing an internationally recognized, independent program in the molecular and/or cellular biology of hematopoietic stem cells. This program will have the goal of developing information, principles, and applications complementing clinical marrow transplantation efforts in the Department. Successful candidates will join the new Department of Experimental Transplantation and Immunology that includes in its membership basic, clinical-translational, and clinical Investigators. This position provides full salary support and independent and substantial supply and equipment budget, along with technician and fellow support. U.S. citizenship or resident alien staus is required. Applicants should send a curriculum vitae, a statement of the candidate's proposed research program, and three to five letters of recommendation to:

Ms. Rose S. Brown, Department of Experimental Transplantation and Immunology, Medicine Branch, National Cancer Institute, Building 10, Room 12N226, 9000 Rockville Pike, Bethesda, MD 20892-1906 by February 15, 2000. NIH is an Equal Opportunity Employer.

#### POSTDOCTORAL POSITIONS IN MOLECULAR AND DEVELOPMENTAL NEUROSCIENCE

Two positions are immediately available in neural stem cell research to characterize and genetically modify neural stem cells and study the neuroregenerative potential of ES and other tissue stem cells. We are seeking applicants with expertise in cell and molecular biology and in cell culture, preferably with neuroscience background. Send résumé and three letters of reference to: Dr. Iqbal Amhad, Departments of Ophthalmology and Cell Biology and Anatomy, 985540 Nebraska Medical Center, Omaha, NE 68198-5540. E-mail: iahmad@unmc.edu. Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.



#### MAYO CLINIC TRANSPLANTATION BIOLOGY **RESEARCH PROGRAM**

The Transplantation Biology program at the Mayo Clinic is seeking faculty for tenure or tenure-track positions in the program. The ideal applicant will be excited about developing an independent, cutting-edge basic science research effort, and at the same time participating in a highly-interactive, multidisciplinary program. The program will consist of scientists working in the areas of cellular, molecular, and structural biology, biochemistry and immunology as they apply to fundamental issues in transplantation biology. Members of the program will also have appointments in the Mayo Medical School and Mayo Graduate School.

For more information, visit the Mayo Clinic Research website: http://www.mayo.edu/ research.html. To inquire, please send a cover letter describing your research interests, a curriculum vitae and the names and addresses of three references to

Jeffrey L. Platt, MD Transplantation Biology Research Program Mayo Clinic Medical Sciences Building 2-66 Rochester, MN 55905

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### Plant Physiologist/Biochemist

A scientist is required to conduct and lead research in the genetic engineering of crop plants for enhanced seed value. You will be part of a multidisciplinary program including Plant Physiologists, Molecular Biologists, Biochemists, Genomicists and Geneticists. Responsibilities include conducting research leading to the directed modification of primary plant metabolism and whole plant physiology. Primary activity is identification of genes important to the research program; this includes the biochemical and physiological characterization of plants, evaluation of genes and enzymes in transgenic systems, initiation and development of scientific hypothesis and research plans, as well as technical communication.

Ph.D. degree and demonstrated successful postdoctoral research (or equivalent) and a publication record in the areas of Plant Physiology and/or Plant Metabolism is required. Experience in biochemistry, especially in assay development and kinetic evaluations, essential. Experience with transgenic plants (phenotyping) and carbon/nitrogen metabolism and partitioning ideal. Molecular Biology experience desired.

This position is located at the Calgene Campus, Davis, California. For fastest consideration, please submit your resume in scannable format to: monsanto@aon-hros.com, Ad Code: 99-2712 on your subject line and cover letter. Or mail to: Monsanto Staffing, 99-2712, 800 N. Lindbergh Blvd., W2A, St Louis, MO 63175. EEO/AA Employer M/F/D/V. Please visit our website at: www.monsanto.com









#### Senior Molecular Biologist/Biochemist Molecular Basis of Taste and Olfaction

Givaudan Roure, a subsidiary of Roche Holding Ltd., is a recognized leader in innovation for the manufacture of flavor and fragrance products. Expansion of activity in the area of basic and applied flavor research has created a number of opportunities at our global flavor research center located in Cincinnati.

We are presently seeking a highly motivated professional to join our biotechnology section. This person will be responsible for our in-house research program on molecular taste and olfaction as well as manage several outside collaborations in this area.

Applicants must have a Ph.D. degree in molecular biology or biochemistry and at least two years of relevant post-doctoral experience. A strong scientific background in molecular signal transduction and receptor-ligand interaction is essential, experience in the area of taste and olfaction is desirable. A proven track record (publication list) demonstrating comprehensive knowledge and handson experience with relevant technologies such as protein expression systems, enzyme biochemistry and antibody technology is expected. Familiarity with high through-put screening systems is a plus. Candidates must be committed to working in an interdisciplinary team and have excellent communication and presentation skills.

Givaudan Roure offers a competitive salary, generous benefits package and a stimulating environment that will support professional growth and success. For consideration, please send or e-mail your resume including your publication list to:

> Givaudan Roure Flavors Corp. 1199 Edison Drive Cincinnati, OH 45216 Attn.: Leslie Gilhoolev **Human Resources** leslie.gilhooley@roche.com

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#### **EUROPEAN OPPORTUNITIES**



#### THE UNIVERSITY OF **MANCHESTER**

SCHOOL OF BIOLOGICAL SCIENCES



## Lectureship/Senior Lectureship

(Tenure Track) Molecular Microbiology (Ref: 877/99)

Applications are invited from individuals exploiting molecular genetics and genomics/proteomics to study fundamental aspects of bacterial pathogens. Currently there is an active research grouping studying the synthesis and role of bacterial cell surface structures in diseases. The School offers excellent opportunities for interaction with colleagues to study microbe/host interactions in the pathogenesis of bacterial infections.

Informal enquiries to ISRobert@fsl.scg.man.ac.uk

### Lectureship

Neuroscience (Ref: 878/99)

A Lectureship is available for five years in the first instance. This position arises as a result of Professor Nancy Rothwell's appointment to an MRC Research Professorship. We are therefore seeking an individual with research interests, which will complement those of Professor Rothwell, in neurodegeneration, and/or neuroimmunology and who will collaborate with her group, but will also establish an independent career.

Informal enquiries to E-mail: Nancy.Rothwell@man.ac.uk

Website: http://www.biomed.man.ac.uk/biology/ns/njr/neuro2.html

For both positions, applications from scientists in the early stages of their career are particularly encouraged. The Lecturer and Senior Lecturer salary ranges are currently £17,238 to £30,065 and £31,563 to £35,670 respectively.

Information on the School and application forms can be found on http://www.biomed.man.ac.uk

Application forms and further particulars are available from the Office of the Director of Personnel, The University of Manchester, Oxford Road, Manchester M13 9PL. Tel: +44 (0)161 275 2028; Fax: +44 (0)161 275 2471; Minicom (for the hearing impaired): +44 (0)161 275 7889; E-mail: personnel@man.ac.uk Web Site: http://www.man.ac.uk

Closing date: 14 January 2000.



As an Equal Opportunities Employer, the University welcomes applications from suitably qualified people from all sections of the community regardless of race, religion, gender or disability.



Kimeragen, Inc. is engaged in the discovery and development of gene repair therapies. We are seeking dynamic people for the following positions:

SENIOR SCIENTIST/CELL BIOLOGY. Re-

SENIOR SCIENTIST/CELL BIOLOGY. Responsibilities include: establishing model gene targeting models in cell culture; aiding in the development of oligonucleotide delivery systems; supporting the product development processes, including preclinical trials; day-to-day operations of the cell biology laboratory. This laboratory-based position requires a Ph.D. in cell biology, molecular biology, or related field with at least three years of postdoctoral experience; sustained performance as recognized through publications, filed patents, and research endeavors; ability to work in a team environment; excellent verbal and written communication skills. Experience with GLP and cGMP guidelines, oligonucleotide or DNA delivery vehicles a plus.

SENIOR SCIENTIST/PHARMACEUTICAL FORMULATION. Participate in the formulation and manufacturing of delivery systems for our novel technology. Responsibilities include: evaluation and optimization of delivery systems for in vitro and in vivo gene delivery, development of chemical or biological assays to assess these systems, and scale-up of production of DNA delivery systems to conform to GMP guidelines. This laboratory-based position requires a Ph.D. in pharmaceutics or chemistry; at least three years of postdoctoral experience; a background of analytical and biophysical chemistry is desired, especially with regard to understanding interactions between oligonucleotides and polycations or colloidal systems; experience with liposomes and novel DNA delivery systems; experience with lipid chemistry, scale-up of manufacturing of liposomes within GLP and cGMP guidelines.

Interested individuals are encouraged to forward their résumé to: Human Resources, Kimeragen, Inc., 300 Pheasant Run, Newtown, PA 18940. Email: hresources@kimeragen.com. Website: www.kimerageninc.com. Equal Opportunity Employer.

#### DEPARTMENT OF HUMEN GENETICS MOLECULAR AND DEVELOPMENTAL BIOLOGY LABORATORY Memorial Sloan-Kettering Cancer Center

POSTDOCTORAL POSITIONS are available to study: (1) the molecular mechanisms underlying acute promyelocytic leukemia (APL) pathogenesis and the molecular pathways controlled by the genes involved in the disease (PML, PLZF, NPM, NUMA, STAT5B, RARα); and (2) the role of phosphatases, such as PTEN and PP2A, in tumorigenesis. This will be studied using molecular and cellular systems, as well as animal models generated by transgenic technology, gene ablation, and conditional gene targeting in mouse ES cells. Applicants should have a Ph.D. and/or M.D. with extensive experience in molecular biology, protein biochemistry, and/or mouse genetics. Send or FAX curriculum vitae and the names of three references to: Pier Paolo Pandolfi, M.D., Ph.D., Department of Human Genetics, Box 110, MSKCC, 1275 York Avenue, New York, NY 10021. FAX: 212-717-3374. MSKCC is an Equal Opportunity/Affirmative Action Employer.

## THREE POSTDOCTORAL POSITIONS AT HARVARD MEDICAL SCHOOL/BRIGHAM AND WOMEN'S HOSPITAL

Available immediately to study the structure, function, and signaling of putative calcium channels and extracellular matrix affected in genetic diseases. Approaches include patch clamp and/or molecular and cell biology (reference: Chen et al., Nature, 1998; Lu et al., Nat. Genetics, 1997). Experience in electrophysiology or cellular and molecular biology is required. Background in mammalian genetics is desirable. Please send curriculum vitae to: Dr. J. Zhou, Harvard Institutes of Medicine, Room 520, 4 Blackfan Circle, Boston, MA 02115. FAX: 617-525-5830; e-mail: zhou@rics.bwh.harvard.edu. Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

#### POSITIONS OPEN

#### OUTSTANDING OPPORTUNITIES IN CARDIOVASCULAR RESEARCH FOR CREATIVE GRADUTE STUDENTS AND POSTDOCTORAL FELLOWS The University of Virginia

The University of Virginia offers a multidisciplinary training program in basic cardiovascular research. Our special strengths are in the area of vascular biology with studies emphasizing molecular biology, physiology, pharmacology, biophysics, and cell biology of the vessel wall. Thirty-one Investigators are participants in a training program with a long history of successful mentoring of both graduate students and Postdoctoral Fellows. Our particular strengths are in the areas of structural biology, cell signaling, and microvascular function. Laboratory investigations are underway in cell-cell communication in microvessels; cardiac, smooth muscle cell signal transduction; angiogenesis; and leukocyte-endothelial cell interactions. Positions are well supported and include stipend, health insurance, and travel. A special program also exists for M.D's wishing to pursue the Ph.D. Details of the interests of the faculty, a description of the program, and application forms may be found on the World Wide Web at website: http://www.med. virginia.edu/medicine/inter-dis/cvrc. For additional information, e-mail: cimcon@virginia.edu. Interested and competitive applicants may also apply directly to: Dr. Brian R. Duling, Department of Molecular Physiology and Biological Physics, P.O. Box 10011, Health Sciences System, University of Virginia, Charlottesville, VA 22906-0011. These positions are restricted to permanent residents or citizens of the United States. The University of Virginia is an Equal Opportunity Employer.

#### POSTDOCTORAL SCIENTISTS MOLECULAR BIOLOGY

Corixa Corporation is a biotechnology company dedicated to the development of T cell vaccines and therapies for cancer and infectious diseases. Corixa is seeking Ph.D. and/or M.D. Postdoctoral scientists to join our antigen discovery efforts. Cancer: Candidates with molecular biology background and experience in gene expression analysis to work on tumor antigen discovery. Skills in full-length cloning, cDNA and genomic library construction and bioinformatics are preferred. Job #2000-01. Leishmania: Candidates with molecular biology background to work on the development of vaccine candidates for leishmaniasis. Skills in full-length cloning and gene expression are preferred. Job #1999-76. Corixa offers competitive salary and benefits in a progressive work environment. Please send curriculum vitae, statement of research interests and experience, and names of three references by January 3, 2000, to: Corixa Corporation, 1124 Columbia Street, Suite Attn: Job # 200, Seattle, WA 98104. FAX: 206-754-5715; website: http://www.corixa.com. Equal Opportunity Employer

#### UNIVERSITY OF PENNSYLVANIA

POSTDOCTORAL POSITION is available immediately in the area of HIV pathogenesis. Research involves inhibition of HIV infection by saliva-derived glycoproteins. Candidates should have experience in HIV and/or glycobiology. Please apply with curriculum vitae and the names and telephone numbers of three references to: Dr. Daniel Malamud, Department of Biochemistry, University of Pennsylvania, School of Dental Medicine, 4001 Spruce, Philadelphia, PA 19104. E-mail: Malamud@pobox. upenn.edu. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Qualified female and minority candidates are encouraged to apply.

POSTDOCTORAL POSITIONS available immediately for studies of the mechanism, evolutionary origin, and regulation of enzymes involved in biodegradation of pentachlorophenol. Strong background in biochemistry and/or molecular biology required. Send curriculum vitae and references to: Dr. Shelley D. Copley, University of Colorado, Department of Chemistry and Biochemistry, CB 216, Boulder, CO 80309. The University of Colorado at Boulder is committed to diversity and equality in education and employment.

#### POSITIONS OPEN

POSTDOCTORAL POSITIONS are available at the Buck Center for Research in Aging, a new, privately endowed and NIH-funded nonprofit research institute in the San Francisco Bay area devoted to the study of molecular mechanisms in aging and agerelated neurodegenerative diseases, in the following areas: (1) polyglutamine expansion diseases, and (2) basic mechanisms of apoptosis, requiring expertise in molecular biology, animal models of neurological disease, or apoptosis research in the laboratory of Dr. Lisa Ellerby; (3) genomics and bioinformatics, requiring expertise in gene expression, microarrays, PCR, and nucleic acid purification and chemistry, in the laboratory of Dr. Mark Eshoo; and (4) angiogenesis in cerebral ischemia and (5) cannabinoids and neuroprotection, requiring expertise in molecular biology and animal models of angiogenesis or stroke, in the laboratory of Drs. David Greenberg and Kun Lin Jin. A curriculum vitae and the names of three references should be mailed to: the Buck Center, Human Resources, Box 638, Novato, CA 94948-0638; FAXED to: 415-209-2005; or e-mailed to: kmcmahon@buckcenter.org indicating the position to which the application is directed.

#### POSTDOCTORAL RESEARCH FELLOWS POSITIONS College of Physicians and Surgeons of Columbia University Department of Surgery

Experience in molecular and tumor biology and a background in cell biology and biochemistry required. These skills will be applied to projects related to atherosclerosis, transplantation, tumor biology, and Alzheimer's disease. A curriculum vitae and the names and addresses of two academic references should be sent to: Ms. Claudia W. Edwards, College of Physicians and Surgeons of Columbia University, P and S 17-401, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

A POSTDOCTORAL or RESEARCH ASSOCIATE POSITION is available at Yale University School of Medicine to study graft-versus-host disease and graft-versus-leukemia using gene-deleted mice (Science 258:412, 1999). We focus on antigen presentation and tolerance. Translational projects include gene modification of T cells and in vivo antigen presenting cell depletion. Send curriculum vitae to: Warren Shlomchik, M.D., Medical Oncology, Yale University, P.O. Box 208032, New Haven, CT 06520. E-mail: warren.shlomchik@yale.edu.

POSTDOCTORAL POSITIONS available to signal transduction mechanism that regulates apoptosis in salivary acinar cells. Model system includes cell lines, primary cells, and transgenic/knockout mice. Experience with molecular approaches is desirable. Send curriculum vitae and the names of three references to: Mary E. Reyland, Ph.D., Department of Oral Biology and Basic Sciences, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Box C286, Denver, CO 80262.

POSTDOCTORAL POSITIONS available to study the role of src-like kinases in signaling by cytokine receptors with a focus upon the interleukin-3 and prolactin receptors. Experience with molecular/cellular approaches to understanding protein function is desirable. Send curriculum vitae and the names of three references to: Steven M. Anderson, Department of Pathology, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Box B216, Denver, CO 80262.

POSTDOCTORAL POSITIONS in cellular biophysics. Scientists sought with strong background in optical instrumentation to study static and dynamic phenomena in living cells. Microscopy methods include: FCS, TIR, FRAP, multiphoton imaging, and time-resolved fluorescence. Additional information at website: www.ucsf.edu/verklab. Reply to: Prof. Alan S. Verkman, University of California, San Francisco. E-mail: verkman@itsa.ucsf.edu.

## Professorship (C3 for 6 Yrs) of Cell Therapy – Stem Cell Transplantation

at the University Children's Hospital, Faculty of Medicine, University of Erlangen-Nuremberg.

The successful candidate sould be able to represent Pediatrics in clinical service, research and teaching, particularly Cell Therapy and Stem Cell Transplantation. The University Hospital offers access to a Cord Blood Bank and the Wilhelm-Sander-Therapeutic Unit for high risk leukemias.

Candidates should have an excellent university degree and dissertation, the "Habilitation" or equivalent expertise as well as substantial clinical experience in pediatric stem cell transplantation. Applications of suitably qualified women are strongly encouraged. At time of appointment, the candidate should not be older than 52.

A letter of application including CV, certificates as well as lists of teaching experience, publications and references should be sent not later than December 17, 1999 to the Dekan der Medizinischen Fakultät der Universität Erlangen-Nürnberg, Universitätsstraße 40, D-91054 Erlangen.

### Friedrich-Alexander-University Erlangen-Nuremberg





# Max Planck Institute for Demographic Research

For information about research activities and open positions, please see

http://www.demogr.mpg.de



The Swiss Federal Institute of Technology in Zurich (ETH Zurich) invites applications for the position of

#### Professor of Computational Sciences and Director of the Swiss Center for Scientific Computing CSCS

in Manno TI. The Director's duties include managing CSCS, assisting in projects of Swiss universities that require high performance computing resources and expertise, as well as research, teaching and service activities in collaboration with universities and industry in Switzerland and abroad.

CSCS is the national center for scientific computing, servicing all universities in Switzerland. As a result of the present reorientation, the center will increase its activities in the areas of research and teaching. CSCS is part of the Swiss Federal Institute of Technology (ETH) in Zurich and is situated close to Lugano in the Italian speaking part of Switzerland.

Applications are solicited from candidates with excellent scientific records as well as internationally recognised research and teaching activities in one of the main fields of application of supercomputing, such as computational chemistry, biology, physics, fluid dynamics or climate modelling. The successful candidates will have exceptional management skills and experience with high performance computing systems. An excellent command of the English language is essential: knowledge of Italian and German would be an additional asset.

Please submit your application, curriculum vitae, list of publications and a table of completed projects to the President of ETH Zurich, Prof. Dr. O. Kübler, ETH Zentrum, CH-8092 Zurich, no later than January 31, 2000.

#### University of Geneva Department of Anthropology and Ecology

GROUP LEADER POSITION (starting date: April 1, 2000)

RESEARCH POSITION available for a scientist in a tenure-track position to lead a small research group in the area of freshwater ecology.

Research programmes will have to be developed in the field of data and knowledge modelling (especially regarding aquatic plants and/or invertebrates), applied to the assessment, monitoring and restoration of aquatic ecosystems. Applicants must have a strong commitment to teaching and research in an interdisciplinary context. Teaching in French is required, but a period of adjustment can be granted. Experience with international research programmes is welcome. Candidates should possess a PhD or an equivalent title.

Please send curriculum vitae, statement of research interests and the name of three references by January 31, 2000 to the Chairman of the Department of Anthropology and Ecology, University of Geneva, Rue Gustave-Revilliod 12, CH-1227 Acacias, Switzerland. Fax:+41-22-702-6979

Women are encouraged to apply



## LECTURESHIPS/SENIOR LECTURESHIPS

## EXPERIMENTAL MOUSE GENETICS

The newly formed Cardiff School of Biosciences is seeking two highly motivated individuals to join its internationally renowned mammalian transgenics team. You will be expected to develop your own independent research programme, while interfacing with our extensive core research groups who are at the forefront of ES cell-based mouse transgenic technology. You must have a PhD in the biological sciences, with relevant postdoctoral experience and a good research and publications record.

Salary: £19869 - £35670 per annum

For an application pack please ring the Personnel Division +44 (0) 1222 874017 or email Persad1@cf.ac.uk quoting vacancy number 623. Informal enquiries to Professor Martin Evans +44 (0) 1222 874120 email: evansmj@cardiff.ac.uk

Closing date: 10 January 2000.

## POSTDOCTORAL/RESEARCH ASSOCIATE POSITION: MUSCLE PHYSIOLOGY/BIOPHYSICS

#### University of Pennsylvania

Positions for highly motivated and organized individuals. We study design of muscle for different motor functions (see PNAS 93:8095–8100, 1996; PNAS 96:5826–5831, 1999; Biol. Bull. 197:227–228, 1999). We are interested in individuals with expertise in one of the following areas: mechanics, energetics, skinned fibers, SR-function, Ca<sup>2+</sup> transients, and the cloning/expression of muscle proteins. University of Pennsylvania houses the Pennsylvania Muscle Institute, with many individuals working on cellular/biophysical aspects of muscle contraction. Please send curriculum vitae to: Dr. Larry Rome, Department of Biology, University of Pennsylvania, Philadelphia, PA 19104. FAX: 215-898-8780; e-mail: Irome@mail.sas.upenn.edu.

POSTDOCTORAL POSITIONS available in molecular cardiology at University of California San Francisco. Current projects include: cloning novel transcription factors, signal-dependent cell cycle regulation, array analysis of gene expression, and approaches to myocardial regeneration. See website: http://bernstein.ucsf.edu for details. Requirements include U.S. citizenship/permanent resident status, Ph.D. and/or M.D., strong background in molecular/cellular biology. Send curriculum vitae, research summary, and three references to: H. S. Bernstein, M.D., Ph.D., University of California, 505 Parnassus Avenue, Box 0130, San Francisco, CA 94143. FAX: 415-514-0235; e-mail: hsbernstein@pedcard.ucsf.edu. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in allergy and inflammation laboratory to study inhibitory cell surface receptors expressed on mast cells and other immune system cells (*JBC* 274:5791). Candidates should have a strong background in molecular biology and/or immunochemistry. Send curriculum vitae and contact information for three references to: Howard R. Katz, Ph.D., Harvard Medical School/Brigham and Women's Hospital, Division of Rheumatology, Immunology, and Allergy, 1 Jimmy Fund Way, Room 628A, Boston, MA 02115. E-mail: hrkatz@mbcrr.harvard.edu.

POSTDOCTORAL POSITION: An NIH-funded Postdoctoral position is immediately available to join a start-up group. The research is directed to the functional analysis of T-cell receptor and cytokine receptor-mediated signal transduction, with emphasis on Cbl-mediated ubiquitination (Science 268:312, 1999). Extensive experience in cell and molecular biology and a background in immunology are highly desirable. Contact: Dr. Yun-Cai Liu at La Jolla Institute for Allergy and Immunology, 10355 Science Center Drive, San Diego, CA 92121. E-mail: yuncail@liai.org; FAX: 858-558-3597.

#### POSTDOCTORAL ASSOCIATE

A Postdoctoral position is available as part of a multidisciplinary program in urologic oncology research. Several research projects are available including: nuclear matrix proteins as biomarkers of cancer, role of vitamin D in prostate growth, and differentiation. Send curriculum vitae and list of three potential references to: Robert H. Getzenberg, Ph.D., 200 Lothrop Street, BST E-1056, Pittsburgh, PA 15213-2582. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

## POSTDOCTORAL POSITION NMR STRUCTURAL BIOLOGY

A Postdoctoral position is open starting June 1, 2000, or possibly earlier for the study of the three-dimensional structure and the mechanism of action of DNA interactive proteins and enzymes involved in DNA repair. Multidimensional NMR will be employed, using Varian 500 and 600 MHz NMR spectrometers. Apply to: Dr. Greg Mullen, Department of Biochemistry, 263 Farmington Avenue, Farmington, CT 06032.

#### POSITIONS OPEN



## NCI-FUNDED POSTDOCTORAL TRAINING PROGRAM SIGNAL TRANSDUCTION AND CANCER

M. Dubocovich: Melatonin receptor, J. D. Engel: Hematopoiesis, R. Goldman: Cytoskeletal protein function, K. Green: Cell-cell interactions, H. Hamm: G-proteins and signaling, M. Hosey: G-protein coupled receptors, M. Hunzicker-Dunn: Protein kinase C, J. L. Jameson: Mutations in endocrine tumors, V. C. Jordan: Estrogen receptor and antiestrogens, C. Lee: Prostate biology, D. Linzer: Placental hormones, K. Mayo: Activin and inhibin receptors, R. Morimoto: Heat shock proteins, L. Pinto: Calcium ion channels, J. Reddy: Peroxisome function, S. Rosen: Signal transduction in cancer therapies, K. Rundell: Cell cycle regulation, P. Stern: Signal transduction in bone, B. Thimmapaya: Matrix signaling, L. Van Eldik: Glia and glioma, M. Watterson: Calmodulin signaling. Applicants must be U.S. citizens or permanent residents with no more than two years of postdoctoral experience. Applicants should send their curriculum vitae, statement of research interests, selection of mentors, and letters of reference to: Robin Leikin, Ph.D., Administrative Director, Training Programs, Robert H. Lurie Comprehensive Cancer Center, Northwestern University, 303 East Chicago Avenue, Chicago, IL 60611. Northwestern University is an Equal Opportunity Employer.

#### POSTDOCTORAL POSITIONS IN X-RAY CRYSTALLOGRAPHY Washington University School of Medicine

Postdoctoral positions are available immediately to study the structure/function relationship of proteins involved in DNA replication and repair (Cell 90: 635–647, 1997; PNAS 94:6652–6657, 1997; Protein Science 7:605–610, 1998; EMBO Journal 17: 7514–7525, 1998; PNAS 96:9491–9496, 1999), bacterial pathogenesis (Science 285:1058–1061, 1999), and protein modification (Nature Struct. Biol. 5:1091–1097, 1998). Details of the research can be found at website: http://www.biochem.wustl.edu/~waksman. Applicants should send a curriculum vitae and names and addresses of three references to: Dr. G. Waksman, Washington University School of Medicine, Department of Biochemistry and Molecular Biophysics, Box 8231, 660 South Euclid Avenue, Saint Louis, MO 63110.

#### POSTDOCTORAL POSITION

A Postdoctoral position is available immediately at Stanford to study the role of the hedgehog signaling pathway in human basal cell carcinoma and hair formation. (See Nature Med. 5:1285-1291, 1999; Cell 95:575-578, 1998; Science 276:817-821, 1997). The successful candidate should have expertise in molecular biology and tissue culture. Send curriculum vitae and names of three references to: Anthony Oro, M.D., Ph.D., c/o Jackie Walker, Stanford University School of Medicine, 1201 Welch Road, Stanford, CA 94305-5486. FAX: 650-723-8762; email: oro@cmgm.stanford.edu. Please see website: http://cmgm.stanford.edu/oro for more information on the laboratory. Stanford University is an Equal Opportunity Employer. Women and minorities are encouraged to apply. Applicant must be a U.S. citizen or a permanent resident.

#### POSTDOCTORAL POSITION

Postdoctoral-level Molecular Biologist to study HIV-1 in human brain, in a project directed at understanding envelope-chemokine receptor interactions in neurological disease. Expertise with high-sensitivity PCR techniques is essential, and experience with HIV-1 and/or immunohistochemistry is desirable. Send letter, curriculum vitae, and three references to: Dr. R. Collman, University of Pennsylvania School of Medicine, 36th and Hamilton Walk, Philadelphia, PA 19104-6060. FAX: 215-573-4446.

#### POSITIONS OPEN

## THE DEPARTMENT OF MOLECULAR BIOLOGY AT PRINCETON UNIVERSITY ANNOUNCES THE

## LEWIS THOMAS FELLOWS PROGRAM in Computational and Physical Biology

A fellowship program has been established for outstanding young scientists to work in the Department of Molecular Biology. The Program provides opportunities to exceptional individuals holding Ph.D. degrees (or the equivalent) in the areas of physics, chemistry, computer science, or computational approaches to biology who wish to gain expertise in molecular biology. Research will be carried out in collaboration with members of the Department of Molecular Biology. The Fellows Program provides an annual stipend of \$41,000 and an annual research budget of up to \$15,000 to foster collaborative experimental research in laboratories within the Department of Molecular Biology. Fellows will be appointed for a one-year appointment, normally renewable for a second year. The application deadline is December 15, 1999, for a nominal start date of September 1, 2000. For more information about the Program and the Department of Molecular Biology, visit our website: www. molbio.princeton.edu. Applications must include a curriculum vitae, list of publications, brief statement (three pages) of research interests and goals, and the names of three individuals whom you have asked to send references. Address applications to: Lewis Thomas Fellowship Committee, Department of Molecular Biology, Princeton University, Princeton, NJ 08544-1014. Princeton University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and members of minority groups.

### POSTDOCTORAL POSITION IN COGNITIVE NEUROSCIENCE

Available in the Department of Physiology, University of Wisconsin, to study role of the thalamic reticular nucleus in attention mechanisms (Neuroscience 76: 1061–1081, 1997; 91:805–817, 1999). Background in cognitive or systems neuroscience required. Send curriculum vitae and name of three references to: Dr. Vicente Montero, 621 Waisman Center, 1500 Highland Avenue, Madison, WI 53705. FAX: 608-265-4103; e-mail: montero@waisman.wisc.edu; website: http://www.physiology.wisc.edu/www/montero.html.

POSTDOCTORAL POSITION in signal transduction to study molecular and cellular mechanisms of skeletal muscle regeneration and hypertrophy. Projects involve the study of growth factors, calcium-regulated transcription factors, and muscle stem cells. Experience in cell and molecular biology is essential. Send curriculum vitae to: Grace K. Pavlath, Ph.D., Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322. E-mail: gpavlath@bimcore.emory.edu. Affirmative Action/ Equal Opportunity Employer.

NIH-funded POSTDOCTORAL POSITION. Molecular and functional characterization of novel LPS-induced, glucocorticoid-attenuated genes (*JBC* 270:16756; *Meth. Enz.* 287:250), including two new murine chemokines we cloned. Highly motivated applicants with a strong background in biochemistry, molecular biology, or immunology should send a résumé and the names of three references to: *Jeffrey B. Smith*, M.D., Ph.D., Pediatrics B2-325, UCLA School of Medicine, Los Angeles, CA 90095-1752. E-mail: jbsmith@ucla.edu.

POSTDOCTORAL POSITIONS in viral pathogenesis in one of two ongoing projects: one investigating HIV neuropathogenesis and the other concerning the virus-receptor interactions of La Crosse bunyavirus. Require background in molecular virology, immunology, or a related area. Please send curriculum vitae and the names of three references to: Dr. Francisco González-Scarano, Department of Neurology, 264 Clinical Research Building, University of Pennsylvania, Philadelphia, PA 19104-6146. FAX: 215-573-2029.

#### **FELLOWSHIPS**









#### POSTDOCTORAL FELLOWSHIPS FOR MOLECULAR & CELL BIOLOGISTS

A network of European laboratories funded by a 3-year grant from the 5th Frammework Programme of the European Commission is seeking experienced cell and molecular biologists to join an international and multidisciplinary effort to study the physiology and signal transduction mechanisms of the neurotrophin receptor p75. Four positions are available.

- A molecular biologist with experience in yeast-two-hybrid techniques, Division of Molecular Neurobiology, Karolinska Institute, 17177 Stockholm, Sweden (Prof. Carlos Ibáñez, carlos@cajal.mbb.ki.se)
- A biochemist with experience in protein expression, Laboratoire de Génétique des Virus, CNRS, 91198 GIF Cedex, France (Dr. Christine Tuffereau, ctuffer@gv.cnrs-gif.fr)
- A cell or molecular biologist, School of Biomedical Sciences, University of St. Andrews, KY16 9TS St. Andrews, United Kingdom (Prof. Alun Davies, A.M.Davies@st-and.ac.uk)
- A cell biologist with experience in cell culture or patchclamp techniques, Department of Neurology, University of Würzburg, 97080 Würzburg, Germany (Dr. Martin Koltzenburg, Koltzenburg@mail.uni-wuerzburg.de)

CV, list of publications and two letters of reference should be sent to the addresses shown above before the deadline of January 15

#### **EUROPEAN OPPORTUNITIES**

#### Director at the Max-Planck-Institut für Astronomie

The Max-Planck-Institut für Astronomie (MPIA) at Heidelberg invites applications for the position of one of the two Directors at the Institute. The MPIA has approximately 180 staff, student and visiting positions. It operates the Calar Alto observatory in Spain with its 3.5, 2.2, 1.2m and Schmidt telescopes and uses a substantial fraction of the observing time; in addition, there is privileged access to the 2.2m telescope on La Silla. The MPIA also has a major role in the ESO VLT instrumentation, including the VLT interferometer. It is the leading German partner in the LBT project under construction in Arizona. It runs a data center for ISO and will be involved in the ESA FIRST mission. Candidates must have an outstanding international record of research in astronomy and demonstrated leadership ability. Applications from all areas of astrophysics are encouraged, but preference will be given to candidates with a strong background in observational astronomy or instrument development. Applications should include a vita, list of publications, and a cover letter outlining the current research goals of the candidate as they would be carried out with the resources of the institute. We particularly encourage applications from women. Applications should be sent by February 15, 2000 to the:

Chairman of the Search Committee **Prof. Arndt Simon** Max-Planck-Institut für Festkörperforschung Heisenbergstr. 1 70569 Stuttgart **GERMANY** 

Further information about the Institute may be found at the website: http://www.mpia-bd.mpg.de

#### Conferences



### **First International Quality Research in Dementia** Conference

advances in cause, cure and care for dementia The Queen Elizabeth II Conference Centre Westminster, London, UK

19 to 22 November 2000

### CALL FOR PAPERS

Deadline for submission of abstracts - 3 March 2000

#### Scientific programme includes:

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#### Workshops









Balear Cantabria.

EMBO-Fundación Barceló Workshop 2000 Immune repertoire and autoimmune disease

Mallorca, Spain 22, 23 and 24 May 2000

#### Scientific organizers:

Melchor Alvarez Mon, Abul K. Abbas, C. Garrison Fathman, Carlos Martínez-A.

#### Topic areas:

- Apoptotic cell death and regulation of immune responses
- Regulatory mechanisms in lymphocyte activation
- Chemokines cytokines and autoimmune disease III
- Animal models for autoimmune disease
- Horizons for new therapies in autoimmune disease

#### **DEADLINE FOR APPLICATIONS: 3 APRIL 2000**

Further details and application forms can be found at: http://dio.cnb.uam.es/Informacion/Workshop2000/workshop2000.html

#### or contact:

Department of Immunology and Oncology Centro Nacional de Biotechnología UAM/Cantoblanco E-28049 Madrid - Spain

Phone: (+34) 91 / 585-4850 or 585-4544

Fax: (+34) 91 / 372-0493 e-mail: Mallorca2000@cnb.uam.es Fundación Barceló c/ San Jaime, 4 07012 - Palma de Mallorca

(+34) 971-722467 / 721116 (+34) 971-720380 fundacion@barcelo.com

#### NIH TRAINING PROGRAM IN REPRODUCTIVE BIOLOGY Center for Studies in Reproduction The University of Maryland

PREDOCTORAL AND POSTDOCTORAL POSITIONS are available to study various aspects of female reproduction including: uterine and fetal-placental endocrinology (Eugene Albrecht), steroid synthesis and action in breast (Angela Brodie), mechanisms regulating prolactin secretion (Karen Gregerson), ovarian and uterine angiogenesis (Robert Koos), mechanisms of brain sexual differentiation (Margaret McCarthy), and GABAergic control of GnRH release (Michael Selmanoff). Applicants must have U.S. citizenship. Contact either the individual faculty or: Dr. Eugene Albrecht, Department of Obstetries/Gynecology and Reproductive Sciences. University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. Email: ealbrech@ummc001.ummc.ab.umd.edu.

#### BIOSCIENCE—POSTDOCTORAL

Postdoctoral positions are available immediately at the Ernest Gallo Clinic and Research Center, University of California, San Francisco, to study the role of protein kinase C isozymes and related proteins in nervous system function and drug addiction using cell culture and gene targeting in mice (see: Neuron 24: 253-260, 1999; and Nat. Neurosci. 2:997-1002, 1999). Applicants must have a background in signal transduction with experience in biochemistry, cell biology, or neuroscience. Applicants should have a recent Ph.D. degree or up to three years of postdoctoral experience. Please send a curriculum vitae, description of prior research, and names of two academic references to: Dr. Robert O. Messing, Ernest Gallo Clinic and Research Center at UCSF, 5858 Horton Street, Suite 200, Emeryville, CA 94608. Email: romes@itsa.ucsf.edu. Visit website: http:// gallo.ucsf.edu/Pls/Messing.html. We are an Equal Opportunity Employment/Affirmative Action Employer committed to workforce diversity.

#### COURSES & TRAINING

SHORT COURSE ON TIME-RESOLVED FLUORESCENCE SPECTROSCOPY. The Center for Fluorescence Spectroscopy at the University of Maryland School of Medicine is offering a Short Course on principles and applications of time-resolved fluorescence spectroscopy in Baltimore, March 20-24, 2000. The course will cover basic and advanced topics in fluorometry, including time and frequency-domain measurements, and Forster energy transfer. Advanced topics include chemical sensing, imaging, fiber optics, infrared fluorometry, two-photon excitation, instrumentation, confocal and multiphoton microscopy, protein fluorescence, DNA technology, high-throughput screening, metal-ligand probes, and immunoassays. Textbook, course materials, lunches, and refreshments will be provided. For further information, a schedule, and fees, please contact: Ms. Mary Rosenfeld or Prof. J. R. Lakowicz, The Center for Fluorescence Spectroscopy, Department of Biochemistry and Molecular Biology, 725 West Lombard Street, Baltimore, MD 21201. Telephone: 410-706-8409; FAX: 410-706-8408; e-mail: cfs@cfs.umbi.umd.edu; website: http:// cfs.umbi.umd.edu. Deadline for enrollment is February 1, 2000, with later enrollment if space permits.

## CAREER IN OPTOMETRY, OPTOMETRIC RESEARCH, OR TEACHING

The New England College of Optometry offers a unique program for those with a doctorate in the sciences: biology, chemistry, physics, psychology, etc. Candidates have the opportunity to obtain the Doctor of Optometry (O.D.) degree in 27 months. The program begins annually in June. Employment opportunities exist in private practice, industry, education, and research. Contact: The Admissions Office, New England College of Optometry, 424 Beacon Street, Boston, MA 02115. Telephone: 800-8245526. E-mail: admiss@ne-optometry.edu. Additional information, website: www.ne-optometry.edu. Application deadline March 1, 2000.

#### POSITIONS OPEN

## INTERESTED IN CLINICAL OR POSTDOCTORAL RESEARCH TRAINING?

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The Department of Cardiology at the Beth Israel Deaconess Medical Center invite applications for a Postdoctoral position available to study the transcriptional regulation of the vascular development. We have identified transcription factors that are critical for Tie 1 and Tie 2 gene regulation. The focus of our laboratory is to determine the role of these transcription factors in regulating vascular development, angiogenesis, and endothelial differentiation. Preference will be given to individuals with training in developmental biology and training in some or all of the following techniques: ES cell culture, flow cytometry, in situ hybridization, transgenic animals, and retroviruses. Please send curriculum vitae and three references to: Dr. Peter Oettgen, Harvard Institutes of Medicine, Room 238, 4 Blackfan Circle, Boston, MA 02115. E-mail: joettgen@caregroup.harvard.edu.

### POSTDOCTORAL POSITIONS IN MOLECULAR TOXICOLOGY

Postdoctoral positions are available immediately to study: (1) the role of antioxidant/electrophile response element-driven gene expression in preventing neurodegeneration/neurotoxicity, and (2) molecular mechanisms of signaling associated with Ah Receptor action in differentiation, carcinogenesis, and Cytochrome P450 expression. Both project areas will address cellular signaling including transcription factors and may use genechip technology/transgenic mice. All candidates must have a strong background in molecular or cell biology/biochemistry. Send curriculum vitae and names of three references to: Environmental Health Sciences Center, University of Wisconsin, B157 Steenbock Library, 550 Babcock Drive, Madison, WI 53706. E-mail: (1) Jeffrey Johnson, jajohnson@pharmacy.wisc.edu or (2) Colin Jefcoate\_fecoate@facstaff.wisc.edu. Indicate if there is a project preference.

#### **CONFERENCES**

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POSTDOCTORAL POSITION is available at the National Cancer Institute in a laboratory that focuses on oncogenes and tumor suppressors involved in myeloid leukemia and differentiation. A current focus in the laboratory is on the application of microarray technology to determine genes regulated by oncogenic transcription factors. Another emphasis is on the development of new leukemia models based on transgenic mice. A strong background in molecular biology and cell biology is essential. Send curriculum vitae and names of three references to: Dr. Linda Wolff, Head, Leukemogenesis Section, NCI, Building 37, Room 2D11, 37 Convent Drive MSC 4255, Bethesda, MD 20892-4255. E-mail: lwolff@helix.nih.gov. NIH is an Equal Opportunity Employer.

#### **ANNOUNCEMENTS**

#### NASA PLANETARY BIOLOGY INTERNSHIPS

#### **AWARDS**

The Rosenstiel School of Marine and Atmospheric Science of the University of Miami seeks nominations for the Rosenstiel Award. The Rosenstiel Award is presented annually to recognize outstanding achievement and distinction in oceanographic science. The intent of the award is to recognize younger, midcareer individuals who have contributed substantially towards new directions or understanding in their field. This year's award (including a prize of \$10,000) will be presented for excellence in the field of marine affairs, specifically in worldwide marine policy issues such as ICZM, sea level rise, and ENSO events. Nominations, including a curriculum vitae and the names of three references, should be sent by December 31, 1999, to: Rosenstiel Award Search Committee, Division of Marine Affairs and Policy, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, FL 33149-1098. Telephone: 305-361-4085.

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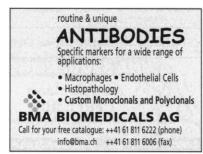
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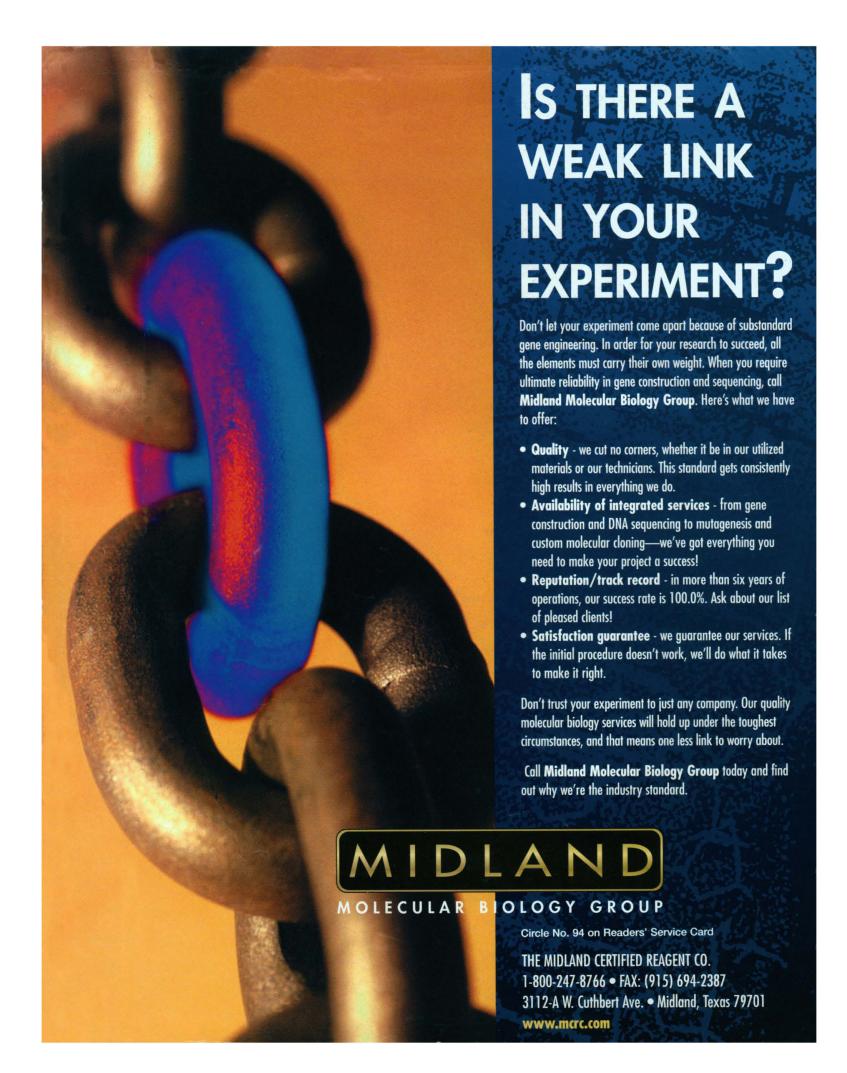
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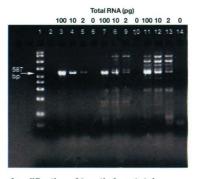
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