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Tsar 3.2 is a new version of software for lead optimization and chemical library design that reduces the time needed to create the chemical compound libraries used to accelerate pharmaceutical and chemical discovery. Tsar offers researchers an easy-to-use spreadsheet interface that displays chemical structures and provides powerful property prediction and statistical analysis tools. Tsar can be used to compute properties of compounds, including important drug discovery properties such as toxicity, absorption, distribution, metabolism, and excretion. Compounds showing undesirable properties can be quickly eliminated from further research efforts. Computational chemists can use the structure-activity analysis to design molecules that exhibit optimum qualities.

Oxford Molecular

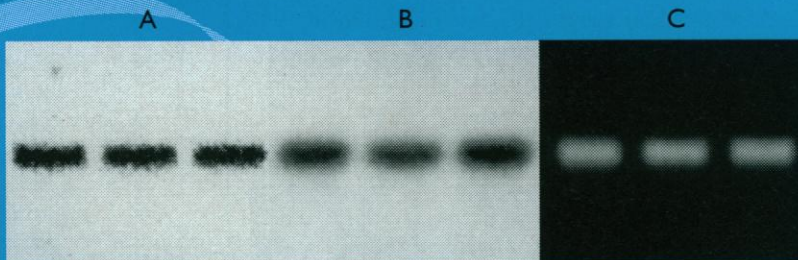
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CONTINUED ON PAGE 670

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vates the vortexer, thus requiring only one hand. Speed is variable across a broad range to meet a variety of applications from gentle mixing to resuspending pellets.

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Insight II 98.0 offers new capabilities for research in the life sciences, including three new modules. Binding Site Analysis combines several tools to help identify and characterize a protein's binding site, then uses those characteristics to look for similar features in other proteins of known structure. SeqFold assists in identifying new drug targets. MCSS offers a new approach for structure-based drug design. It characterizes and analyzes potential ligand binding sites in proteins and nucleic acids. MCSS differs from other approaches in that its evaluation of the binding site is energetically based rather than rule based, it makes use of actual functional groups and all associated interactions, and it handles binding sites in proteins and nucleic acids.

LITERATURE

The FilterMate Universal Harvester is a brochure that describes the many features of this instrument for preparing samples in either the 96- or 24-well microplate format. Among the features described is the FilterMate's short, direct liquid flow path for eliminating crosstalk and for minimizing reagent usage. Samples in either shallow or deep well microplates can be washed and harvested with the same wash/aspirate tips, thereby eliminating the time-consuming changeover required with some harvesters. Plain filters of any type and thickness can be harvested and cut to size to snap into holders.

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

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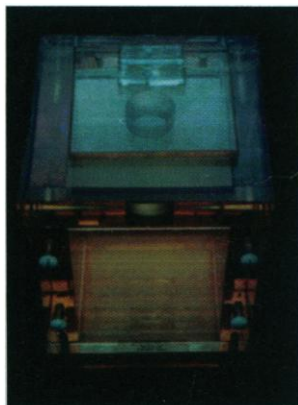
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Albert H. Teich, Stephen D. Nelson,
Celia McEnaney, and Tina M. Drake, editors

Covering major developments during 1998, the new *AAAS Yearbook* is a concise yet comprehensive source of information on current policy issues affecting science and technology. Included are papers from the 1998 AAAS Science and Technology Policy Colloquium together with other key articles and speeches critical to 1998. Working scientists, engineers, government policymakers and administrators, industrial managers, scholars and students of science and technology policy, and many others will find this book an invaluable resource. Special quantity discounts are available for classroom use. Call AAAS at 202-326-6600 for bulk rate purchases. And now you can browse the full text of the 1999 *Yearbook* on-line at www.aaas.org/spp/yearbook

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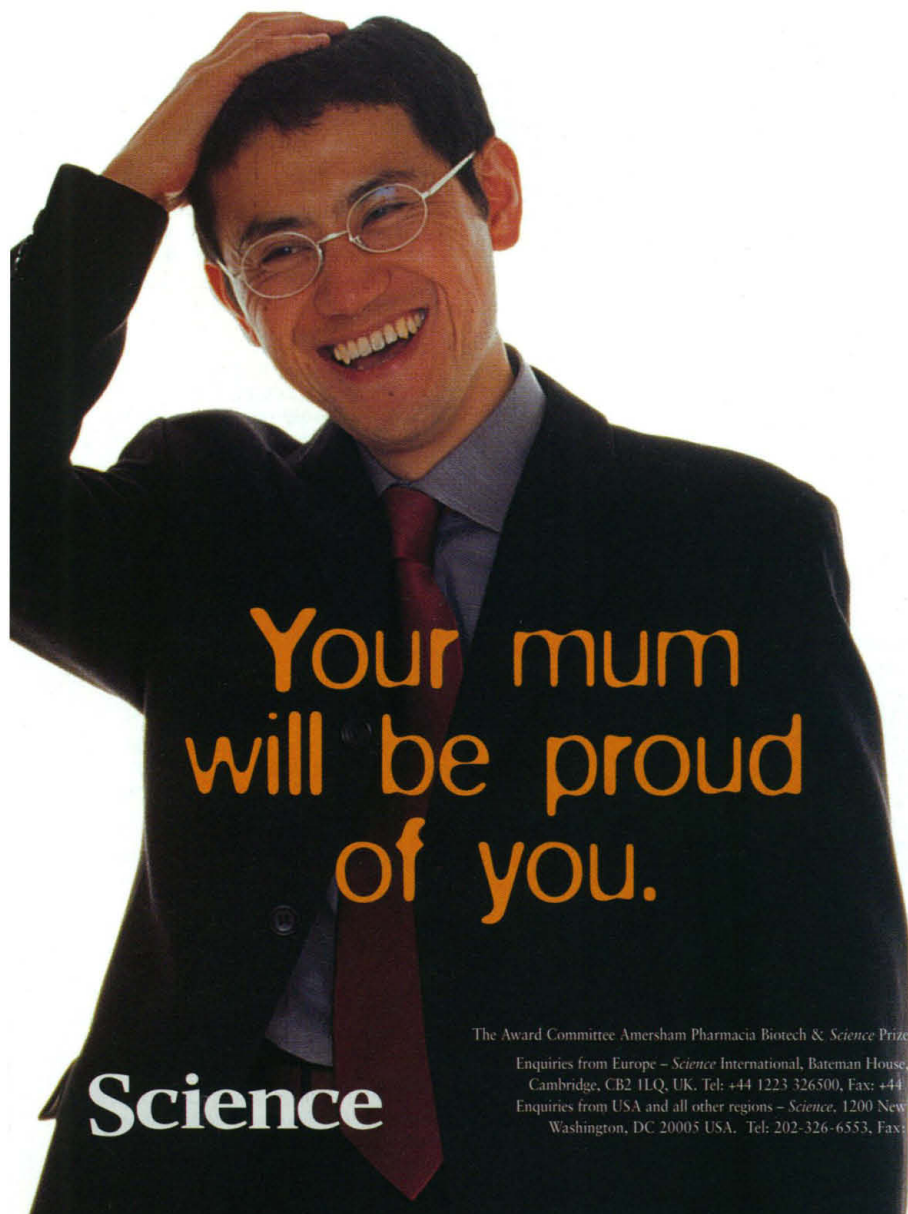
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You must be a recent Ph.D. graduate (awarded between 1 January and 31 December 1998) working in molecular biology. Submissions must be in the form of a 1000-word essay, in English, French, German, Spanish, Japanese or Mandarin Chinese, on your thesis, highlighting the significance of its contribution and overall implications in the field. The winning essay will be published in *Science*.

Closing date for entries is 15 June 1999. Prizes will be presented at an award ceremony in December 1999.

Full details and the required entry form can be requested from the administrator at the address below, or via these Web sites:

<http://www.aaas.org/science/prize.htm>

<http://www.apbiotech.com>

Hiroyuki Noji
(Ph.D. awarded by Tokyo Institute of Technology), winner of the 1998 Amersham Pharmacia Biotech & Science Prize for Young Scientists.

The Award Committee Amersham Pharmacia Biotech & Science Prize for Young Scientists

Enquiries from Europe – Science International, Bateman House, 82-88 Hills Road, Cambridge, CB2 1LQ, UK. Tel: +44 1223 326500, Fax: +44 1223 326501.

Enquiries from USA and all other regions – Science, 1200 New York Avenue, NW, Washington, DC 20005 USA. Tel: 202-326-6553, Fax: 202-789-8172.



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Please send curriculum vitae, including funding history, copies of recent publications, and the names, addresses, and telephone numbers of three references to: Roy E. Albert, M.D., Chair of the Search Committee, Box 670056, Cincinnati, OH 45267-0056. E-mail: roy.albert@uc.edu.

TENURE-TRACK ASSISTANT PROFESSOR POSITION IN STRUCTURAL BIOLOGY

The Department of Biochemistry and Kentucky Center for Structural Biology are soliciting applications for a faculty position at the Assistant Professor level. We are particularly interested in individuals who utilize physical, chemical, biochemical, and/or recombinant DNA approaches to study molecular mechanisms in biological systems. The successful candidate will join an existing structural biology group with expertise in high-field NMR and X-ray crystallography as well as theoretical approaches to protein folding and structure. Areas of research interest in the department include cell cycle control; developmental regulation; signal transduction; membrane biogenesis; protein structure and function; transcriptional regulation; function and biological roles of processing proteases; DNA damage and repair; structure of viral replicases; protein chaperones; glycobiology; and vesicular transport and secretory complexes. Interested persons should submit their curriculum vitae, a summary of research interests, and letters of recommendation from at least three references to: Faculty Search Committee, Department of Biochemistry-607A, University of Kentucky Medical Center, 800 Rose Street, Lexington, KY 40536-0298.

An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ENDOWED FACULTY POSITION IN OPHTHALMOLOGY

Robert Ligon Research Center of Vision in the Department of Ophthalmology at Wayne State University School of Medicine invites applications for a TENURE-TRACK faculty position from candidates interested in biomedical research on artificial vision. Substantial start-up support is provided for this endowed position. The successful candidate with Ph.D., M.D., or equivalent with significant research experience will be considered at any rank. We seek an individual who has strong background in retinal electrophysiology, bioengineering, and/or biophysics to establish a vigorous and innovative research program. Please submit applications including a curriculum vitae, a statement of research accomplishments and future plans, and the names, addresses, and telephone numbers of three references to: Hitoshi Shichi, Ph.D., Chair, Faculty Search Committee, Department of Ophthalmology, Wayne State University, 4717 St. Antoine, Detroit, MI 48201.

Applications will be considered until the position is filled. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MEMBRANE BIOPHYSICS AND ALCOHOLISM

The Division of Intramural Clinical and Biological Research of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) invites applications to apply for a TENURE-TRACK POSITION in the Section of Fluorescence Studies (SFS) of the Laboratory of Membrane Biochemistry and Biophysics (LMBB). The mission of the LMBB includes investigations of alterations in membrane structure and function associated with changes in membrane polyunsaturated fatty acids and alcohol exposure. The SFS utilizes fluorescence techniques to investigate lipid-protein and lipid-lipid interactions with the goal of explaining the relationship between alcohol and compositionally induced membrane structure changes and associated alterations in receptor function. The successful candidate will be expected to establish an independent research program, utilizing a combined biophysical and biochemical approach to elucidate the mechanisms associated with altered membrane receptor function induced by changes in either membrane lipid composition or alcohol exposure. It is anticipated that these studies will be directed toward both natural and artificial receptor containing membrane systems. Significant experience in the area of optical spectroscopy and the reconstitution of integral membrane proteins is desirable. Proposed research programs should be designed, in part, to interface with ongoing studies in the LMBB, which utilize a variety of animal models to study the combined effects of essential fatty acid deficiency and alcohol consumption on behavior and function.

Applicants must have a Ph.D. and/or M.D. and should submit curriculum vitae, bibliography, names of three references, and a three-page statement of research interests and goals. All submittals must be postmarked no later than June 14, 1999, and addressed to:

Ms. Kathleen Hanratty
NIH, NIAAA, Building 31, Room 1B58
31 Center Drive MSC 2088
Bethesda, MD 20892-2088

NIH is an Equal Opportunity Employer. Applications from women, minorities, and persons with disability are strongly encouraged. The DIBBR/NIAAA is a smoke-free environment.

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The Children's Hospital of Philadelphia

ASSISTANT PROFESSOR positions (University of Pennsylvania School of Medicine) are available to study the molecular genetic control of the extracellular matrix in cardiovascular development and disease. The main projects in the laboratory focus on cardiac valve disorders, molecular mechanisms of cardiac arrhythmias, and gene delivery systems.

Experience in molecular biology, protein and nucleic acid biochemistry, signal transduction, and cell culture is helpful. All strong candidates will be considered.

Please send a curriculum vitae, summary of research interest, and the names of three references to:

Robert J. Levy, M.D., Director
Cardiovascular Research Laboratories
The Children's Hospital of Philadelphia
Abramson Pediatric Research Center-1107
Philadelphia, PA 19104-4399
E-mail: levyr@email.chop.edu

The Children's Hospital of Philadelphia, an affiliate of the University of Pennsylvania, is an Affirmative Action/Equal Opportunity Employer.

INSTRUCTOR position available immediately to study biology of mammalian prion diseases. Strong background in molecular biology (DNA cloning, manipulation, and sequencing) is required; experience in transgenic mice technology is desirable. Send curriculum vitae to: P. Gambetti, M.D., Division of Neuropathology, Room 419, Case Western Reserve University, 2085 Adelbert Road, Cleveland, OH 44106. E-mail: slb20@po.cwru.edu. Affirmative Action/Equal Opportunity Employer.

DEAN, SCHOOL OF ENGINEERING Search Re-Opened

Manhattan College invites nominations and applications for the position of Dean, School of Engineering. Reporting to the Provost, the Dean has the responsibility for providing academic and advancement leadership for the School. The School offers undergraduate and Master's Degrees in chemical, civil, electrical, environmental, and mechanical engineering. A new Bachelor's level program in computer engineering is anticipated to begin in 1999. Master's specialties include the undergraduate areas plus computer engineering. Each of the undergraduate programs is fully accredited by ABET.

The College: Chartered in 1853 by the State University of New York, Manhattan College is an independent Catholic coeducational institution in the Lasallian tradition located in the Riverdale section of New York City with an enrollment of 3,500 students. Manhattan is listed among the top tier of northeast regional colleges and universities by U.S. News and World Report. It is third among liberal arts colleges and first among Catholic colleges whose graduates are top corporate leaders. In the most recent Franklin and Marshall Survey, Manhattan ranks first nationally among private comprehensive colleges whose alumni have earned doctorates in the sciences and engineering. It is one of only four comprehensive colleges to have chapters of all three distinguished honor societies—Tau Beta Pi, Sigma Xi, and Phi Beta Kappa.

Responsibilities: Promote, develop and sustain an environment of academic excellence and scholarship; provide leadership in the further development of graduate programs and scholarly activities; develop rewarding relationships with business and industry, government, and the community. Strong interpersonal skills are required.

Qualifications: The candidate should be a distinguished engineer or applied scientist with a strong track record in teaching and scholarly excellence, which will support appointment as a full professor in one of the departments of the School of Engineering. In addition, applicants for the position of Engineering Dean must present evidence that clearly demonstrates the following:

- Earned Doctorate
- Administrative experience comparable to a department head or above
- Outstanding communication skills.
- Integrity and leadership ability
- Commitment to enhancing undergraduate and graduate education and research
- A vision for 21st century engineering education
- Experience with establishing partnerships and/or collaborative relationships both within the college and with government agencies and industry

Applications will be accepted until June 30, 1999. All nominations must be received by June 15, 1999. Applicants should send a letter expressing their interest and qualifications for the position, including a summary of their personal innovations and accomplishments related to leadership and management, engineering education, research and engineering practice. Include a current curriculum vitae, and the names, addresses, and phone numbers of five references. Send all materials to: **Barbara Fabé, Vice President for Human Resources, Search Committee for Dean of Engineering, Department S**



**Manhattan College
Riverdale, NY 10471**

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Molecular Oncology

Two research openings at levels commensurate with academic experience (Assistant Professor to Professor) in the Department of Pathology, Emory University School of Medicine. Candidates should have a background in basic science as it relates to cancer. There are no preferred sub-areas but approaches utilizing molecular cell biology and/or genetics preferred. Applicants should possess M.D., Ph.D. or M.D./Ph.D. degrees and some experience with or training in pathology is preferred but not required. Candidates are expected to have (or be able to develop, if just leaving post-doc) a strong NIH/NSF funded research program — thus candidates should qualify for funding from these sources. Individuals should be interactive with a record indicating productivity. The Department is research intensive and provides an atmosphere of scholarship and collegiality at a Medical School with outstanding resources and facilities (including research cores), graduate students, interactive programs and Departments, and location. Applicants should submit a curriculum vitae and statement describing current and future planned research and arrange to have three letters of recommendation sent to: **Dr. James L. Madara, W.P. Timmie Professor and Chair, Department of Pathology, Emory University School of Medicine, 1364 Clifton Road N.E., Room H184, Atlanta, GA 30322.**

Emory is an Equal Opportunity employer and Women and Minority Candidates are Encouraged to Apply.

Department of Clinical Studies-Philadelphia School of Veterinary Medicine University of Pennsylvania Pamela Cole Career Development Chair Companion Animal Oncology

The University of Pennsylvania School of Veterinary Medicine is pleased to announce the creation of the Pamela Cole Career Development Chair in Companion Animal Medicine. The School invites applications for this tenure-track faculty position with specific emphasis in developing a career as a prominent clinician-scientist in oncology. The Pamela Cole Chair was conceived to provide research and salary support to a junior faculty member for a period of six years, or until tenure status is achieved. The individual chosen will be a key member of the Mari Lowe Center for Comparative Oncology and, as a team member, will act as a vital link between basic research and clinical oncology. The Recipient will have the opportunity to interact and collaborate with basic scientists and clinical oncologists in the School of Veterinary medicine as well as in the Cancer Center within the School of medicine. In addition, there are abundant opportunities to interact with faculty at the Wistar Institute, the Institute for Human Gene Therapy and the Fox Chase Cancer Center. The recipient of the Pamela Cole Chair will be expected to develop an independent research program in an oncology-related area and will participate in the teaching of both veterinary and graduate students.

Candidates must have a veterinary degree and post-doctoral residency training. Preference will be given to applicants who are Diplomates of the American College of Veterinary Internal Medicine (Specialty of Oncology), or who are eligible for board certification in the ACVIM (Oncology). Salary and rank will be dependent upon the candidate's qualifications. Time out of clinic will be scheduled to permit study for board certification, research and other scholarly activities, depending upon the needs and interests of the candidate.

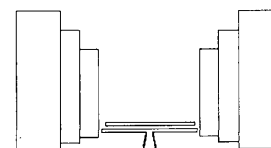
Interested applicants should direct questions or submit a letter of intent along with curriculum vitae and the names, addresses, phone, fax and e-mail information for three references to:

**Dr. Gail K. Smith, Chairman
Department of Clinical Studies-Philadelphia
University of Pennsylvania
School of Veterinary Medicine
3900 Delancey Street
Philadelphia, PA 19104-6010**

(Telephone) 215-898-6678, (Fax) 215-573-8183, (E-mail) smithgk@vet.upenn.edu

The search committee will accept applications until June 15, 1999. The starting date is negotiable.

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THE SALK INSTITUTE POSTDOCTORAL POSITIONS MOLECULAR NEUROENDOCRINOLOGY / NEUROSCIENCE

NIH - funded postdoctoral positions in molecular neuroendocrinology / neuroscience are available at **The Salk Institute for Biological Studies**. This research focuses on the CNS control of neuroendocrine functions in wild type and knockout rodents, and the influence exerted by drugs and stress on the regulation of hormone release and gene transcription / expression. The experiments are carried out in live rodents as well as in immortalized or transduced cells, and require at least a basic knowledge of small animal surgery and standard molecular techniques. The work is part of a large, multidisciplinary program which gives our students numerous opportunities to interact with and learn from scientists versed in all aspects of molecular neuroendocrinology. Send CV, statement of research interest and names of three references to: **Dr. C. Rivier, The Salk Institute, Peptide Biology Laboratory, 10010 North Torrey Pines Road, La Jolla, CA 92037. E-mail: crivier@salk.edu** The Salk Institute is an Equal Opportunity Employer.

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Parke-Davis Pharmaceutical Research, a Division of Warner-Lambert Company, has demonstrated an excellent track record of innovation through the use of great science to discover drugs for unmet medical needs. These scientific accomplishments have perpetuated the growth of the organization and the need for world-class scientists to join its state-of-the-art research facilities in ANN ARBOR, MI. Our research facility is adjacent to the University of Michigan. This location offers a vibrant research environment and a very attractive residential setting and quality of life. If you are interested in continuing your professional development, please consider one of the following opportunities:

NEUROSCIENCE THERAPEUTICS

Scientist/Senior Associate Scientist

Job Code: CJM-99270

Working as a member of the Behavioral Pharmacology Group, you will participate in varied drug discovery programs, including psychiatric diseases, obesity and analgesia. To qualify, you must have an MS degree in Psychology or a biological science with 2-6 years of postgraduate work experience or a BS degree in Psychology or a biological science with 5-9 years of postgraduate work experience. Must have experience with a variety of *in vivo* animal models and a strong background in neuroscience and behavioral pharmacology. Familiarity with spreadsheet data management and computer programming is a plus.

GENERAL TOXICOLOGY

Senior Scientist

Job Code: RJB-99207

Assisting in the ongoing research and/or department projects within Experimental Toxicology, you will propose, initiate and conduct safety pharmacology and toxicology research projects of moderate scope or complexity in collaboration with the supervisor. Showing progressive development of technical expertise, communication skills and professional maturity, you will assume supervisory and administrative responsibility in implementing corporate goals and policies. Additionally, you will study direct in-house safety pharmacology/toxicology and contract safety pharmacology studies, evaluate research reports and write concise summaries.

To qualify, you must have a DVM, PhD or equivalent in a relevant area (pharmacology, physiology or toxicology) and 3-4 years of postgraduate experience. Expertise in whole animal research and experimental surgery, and in cardiovascular or pulmonary physiology/pharmacology with the capability of conducting pharmacologic/toxicologic research are necessary. Must have excellent verbal and written communication skills and the ability to work independently and as a member of a highly specialized team. Knowledge of GLP requirements and an exemplary publication record are desirable.

BIOCHEMISTRY

Scientist/Senior Scientist

Job Code: RJB-99303

As a part of a department continuing to build on a strong record in validating inflammation targets that include extra- and intracellular proteases, kinases and cyclooxygenases, you will have strength in enzymology as it applies to targets in inflammation biology or other important therapeutic areas. This position requires several years of postdoctoral experience in a well recognized laboratory, a strong publication record, and capability of carrying out publishable research. Ability to work interactively as a part of larger therapeutic teams in practical drug discovery efforts is essential. Must have experience with cloning and expression of mammalian proteins in bacteria or eukaryotic systems, as well as a broad array of fundamental quantitative biochemical skills.

Scientist/Senior Scientist

Job Code: RJB-99347

As a member of the High-Throughput Screening Technologies Group within the Biochemistry Department, you will bring therapeutic targets from the conception stage to the high-throughput screening stage and work at the highest level in integrating modern technology with novel science for the purpose of drug discovery. To qualify, you must have a PhD in Biochemistry or related science, and 2+ years of postdoctoral experience reflecting quantitative abilities and interests. Must have a demonstrated ability in enzymology, an interest in assay miniaturization, experience with protein characterization and purification, and a desire to learn the statistical methods for reaction parameter optimization.

NEUROSCIENCE RESEARCH

Neuroscience research encompasses broad interest in neurodegeneration, neurology and psychiatric disorders. Current drug discovery research programs include novel approaches to the treatment of Alzheimer's disease, Parkinson's disease, stroke, pain, anxiety and schizophrenia. Exploratory research emphasizes discovery of novel mechanistic targets through improved understanding of nervous system drug action and disease etiology. Ongoing projects involve state-of-the-art gene expression profiling, transgenic models, human genetics, *in vitro* neuronal and glial culture systems, and neuronal signaling assays. Existing groups within the section include neurochemistry, neuropharmacology, neurophysiology, neuron signaling, neurobiochemistry, neuropathology and behavioral pharmacology. Neuroscience researchers collaborate extensively with clinical and other preclinical colleagues, with innovative biotech companies and with leading academic investigators. The section encourages publication and presentation of research and offers postdoctoral positions.

Molecular Neuroanatomist

Job Code: CJM/TH

We are seeking a talented Senior Scientist with a strong background in neuroanatomy and molecular biology to pursue a research program focused on the identification and characterization of novel targets of drug action in the central nervous system. This scientist must have experience in assessing the localization and functional changes of gene products in the central nervous system associated with human disease states, animal models of disease and therapeutic drug action. A research focus in psychiatric disease is preferred.

The successful candidate will join a large integrated Neuroscience Biology group that is conducting research on new approaches to the treatment of psychiatric, neurological and neurodegenerative diseases with use of molecular, cellular and whole animal studies. The scientist selected for this position will head a laboratory group and manage research programs focused on the discovery, characterization and validation of new disease-relevant molecular targets. In addition, this individual will participate in the discovery and preclinical development of new drugs acting through such targets. The ability to contribute to multiple projects in a variety of therapeutic areas and to collaborate with other scientists is essential.

This position requires a PhD, postdoctoral training, 3+ years of professional experience, an aptitude for innovative and productive research, a track record of publications in molecular neuroanatomy, and excellent written and oral communication skills.

For the Molecular Neuroanatomist position, please send a description of research interests, CV, copies of 2 recent publications and the names of 3 references to the address listed below.

We offer competitive salaries, outstanding benefits, and an environment that's conducive to professional growth. For consideration, please forward your resume with Job Code, to: Parke-Davis, Resume Processing Center, P.O. Box 92242, Los Angeles, CA 90009-2242. Fax: 310-337-3367, E-mail: parkedavis@isearch.com.

www.parke-davis.com

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HUMAN FRONTIER SCIENCE PROGRAM (HFSP)
Bureaux Europe, 20 place des Halles, 67080 STRASBOURG Cedex, FRANCE
Tel: 33 (0)3 88 21 51 21 Fax: 33 (0)3 88 32 88 97 E-mail: info@hfsp.org
Web site: <http://www.hfsp.org>

CALL FOR APPLICATIONS FOR 2000 AWARD YEAR
(Deadline for receipt of applications is 1 September 1999)

The aim of the Human Frontier Science Program (HFSP) is to promote, through international collaboration, basic research to elucidate the complex mechanisms of living organisms, including man. Applications are solicited for the support of research grants, fellowships and workshops in the areas set out below.

RESEARCH AREAS OF THE HFSP
Basic Research for the Elucidation of

(B) Brain Functions

1. Elementary Processes
2. Perception & Cognition
3. Movement & Behavior
4. Memory & Learning
5. Language & Thinking

**(M) Biological Functions through
Molecular Level Approaches**

1. Expression of Genetic Information
2. Morphogenesis
3. Molecular Recognition & Responses
4. Energy Conversion

TYPES OF SUPPORT

The program will only support research that **transcends national boundaries**. Thus, **research grants** will be awarded for programs that involve collaboration between teams in different countries; **fellowships** are available to young post-doctoral scientists who wish to work in a different country; **international workshops** are organized in Strasbourg.

RESEARCH GRANTS Grants for basic research (up to 3 years) carried out jointly by research teams in different countries. The principal applicant must be from one of the eligible countries*.

FELLOWSHIPS **Long Term** (1- 2 years) and **Short-Term** (up to 3 months) Fellowships for researchers early in their careers and from the eligible countries* who wish to do post-doctoral research in foreign countries, or for researchers from outside the eligible countries who wish to do research in one of the eligible countries*.

WORKSHOPS International workshops can be organized by researchers from the eligible countries*.

*Current eligible countries are Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Luxembourg, the Netherlands, Portugal, the Republic of Ireland, Spain, Sweden, Switzerland, the United Kingdom and the United States.

RESEARCH GRANTS AND LONG-TERM FELLOWSHIPS : APPLICATION DEADLINE IS 1 SEPTEMBER 1999

(awards to be announced in April 2000)

Applications for **Short-Term Fellowships** and **Workshops** can be submitted **throughout the year**

Scientists interested in organizing a workshop should contact the Secretariat about possible dates

Guidebooks and application forms will be available in mid-April 1999 and may be obtained upon written request by addressing the form below to the HFSP or by E-mail. Applications using previous year's forms are not accepted. You can retrieve copies of our guidebooks and application forms from our World Wide Web site at <http://www.hfsp.org>

Surname _____ First name _____

Institution _____

Postal Address _____

☐ **Research Grant**

☐ **Long-Term Fellowship**

☐ **Short-Term Fellowship**

☐ **Workshop**

(please check the relevant box(es))

MANAGING EDITOR

The John Templeton Foundation seeks a talented Managing Editor to create, publish and oversee a savvy new magazine-quality newsletter as part of an innovative, independent enterprise to be subsidized by the Foundation. The purpose of the newsletter will be to disseminate the Foundation's news, information and opinions via a vibrant in-print vehicle designed to cover the rapidly expanding Foundation activities and to provide a high-quality forum to expand theme issues. This situation will provide a very exciting and attractive start-up opportunity for an entrepreneurial writer/editor/manager.

The Managing Editor will be expected to take a hands-on approach to the creation and writing of the newsletter, capitalizing on opportunities to report attractively on a wide range of events and symposia worldwide. Candidates should possess experience in magazine publishing, writing, editorship, and be able to demonstrate competency to cover state-of-the-art topics in the subject areas of science and religion.

Please contact: Ms. Karyl J. Wittlinger, Office Manager/Human Resources, John Templeton Foundation, c/o S042399, P.O. Box 8322, Radnor, PA 19087-8322.



JOHN TEMPLETON FOUNDATION

CULTIVATE YOUR CAREER

At Rhône-Poulenc Rorer, a global pharmaceutical leader, we sow the seeds of success. Our commitment to research and development has created new opportunities at our Collegeville, PA research center.

POST DOCTORAL POSITION

The Lead Discovery group within RPR is dedicated to the identification of small molecules that can serve as lead candidates for drug discovery. The group, which currently is involved in all facets of assay development and high throughput screening, is seeking a post-doctoral fellow to assist in the development of novel, high throughput screening technologies. The successful candidate will assist in research efforts to develop new generic screening tools combined with new techniques in biotechnology which can be applied to study orphan nuclear receptors. To qualify, you must possess a recent Ph.D. with a strong background in Biochemistry, Molecular Biology and Molecular genetics. Experience in yeast genetics is a plus.

In addition to an exciting and dynamic environment, we offer a competitive salary and an ideal location. Interested, qualified candidates should forward resume to: Human Resources Manager, R&D, Rhône-Poulenc Rorer, Position SD-HTS, 500 Arcola Road, Mailstop H37, Collegeville, PA 19426. Equal Opportunity Employer M/F/D/V.



COMPREHENSIVE CANCER CENTER WAKE FOREST UNIVERSITY SCHOOL OF MEDICINE

ENDOWED PROFESSORSHIP PROSTATE CENTER OF EXCELLENCE

The Comprehensive Cancer Center of the WFU School of Medicine is recruiting a senior basic science researcher with a laboratory interest in prostate cancer. The successful candidate will hold the rank of Associate Professor or Professor. Candidates should have a track record of accomplishments in prostate cancer research. The successful candidate will join a team of investigators focusing on molecular, population, and clinical issues in prostate cancer.

Interested candidates should send a C.V., including a description of their prostate cancer research to: **Frank M. Torti, M.D., Director, Comprehensive Cancer Center of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC, 27157; Fax: (336) 716-0293.**

Wake Forest University is an equal opportunity affirmative action educator/employer.

Utilize Your Scientific Expertise As An Advocate for Animals

The National Anti-Vivisection Society, the largest animal advocacy organization in the U.S. dedicated solely to eliminating the use of animals in research, education and product testing, seeks a Director of Science to administer and execute science programs for the organization. Specific qualifications should include a Ph.D. in life sciences, M.D. or D.V.M. Qualified candidate should have strong understanding of animal-based research, working knowledge of U.S. funding and regulatory processes, and experience with the development and implementation of non-animal alternatives in research.

Creative thinking, strong communication skills, experience with the media, and the ability to drive projects forward with an innovative approach are essential.

Competitive salary and benefits. Please send a CV and a short personal statement on the use of animals in research.

Apply to:

The National Anti-Vivisection Society
53 W. Jackson Blvd.
Suite 1552
Chicago, IL 60604
312-427-6065
Fax: 312-427-6524
e-mail: navs@navs.org



Pharmacia & Upjohn

As a global, innovation-driven pharmaceutical and health care company, Pharmacia & Upjohn is constantly committed to developing market-beating products to improve wellness and quality of life around the world. Our Worldwide Toxicology Department (WWT), as part of the Global Preclinical Development, contributes to the commercial success of P&U by maximizing the output of new products from the R&D pipeline using world-class cycle times coupled with high quality of data and dossiers.

P&U's unswerving commitment to innovation translates into new drug discovery paradigms based on the use of genomics/proteomics, bioinformatics, combinatorial chemistry and high-throughput screening assays to quickly identify high-value targets, improve the success rate of molecules entering development and shorten the cycle time to market. WWT is an integral participant in this discovery process for the early characterization and selection of new chemical entities. WWT is constantly increasing its efforts in implementing Predictive and Mechanistic Toxicological tools for early preclinical safety profiling in Drug Discovery. We intend to support these efforts and improve our competitive edge by increasing investments in key technologies such as in vitro high-throughput cell-based assays, and molecular toxicology.

New dedicated resources are now opening opportunities for scientists with excellent backgrounds. We are seeking talented people to join our WWT-Italy Department in a multidisciplinary and highly interactive environment. We offer competitive salaries, benefits and global career opportunities limited only by your skill, creativity and performance. The Pharmacia & Upjohn R&D Center in Italy is one of the three major sites of the company. It has an excellent location in Nerviano, ten miles northwest of Milan, northern Italy. It currently employs 250 scientists in Discovery Research and 280 in Preclinical Development including WWT.

Ph.D. / Senior Scientist Investigative and Mechanistic Toxicology

The candidate will direct a laboratory of Investigative and Mechanistic Toxicology to assist in early drug candidate selection during the discovery process and profile mechanisms of toxicity.

Responsibilities include developing new cell-based *in vitro* screening assays that are predictive of the potential toxicological effect of compounds, implementing strategies and automation to increase assay throughput, and developing genetic approaches to profile mechanisms of toxicity and identify surrogate markers.

The candidate must have strong scientific, managerial and communication skills as well as the ability to collaborate with international teams of scientists from diverse disciplines. A Ph.D. in Toxicology, Biology, Cell Biology or Biochemistry with at least 5 years post-doctoral experience in *in vitro* and molecular toxicology is required.

Ph.D. / Scientist - *In vitro* Toxicity Screening

The candidate will develop, optimize and operate high throughput *in vitro* cell-based toxicity assays that are predictive of the potential toxicological effects of early drug candidates. A Ph.D. in Cell Biology or other Biological Sciences with at least 3 years of laboratory experience involving tissue/cell cultures and biochemical analysis of cell functionality is required. Familiarity with high-throughput screening technology is desirable. The candidate must have strong scientific and communication skills as well as the ability to collaborate with Drug Discovery teams to evaluate new methodologies for predictive and mechanistic toxicology screening.

Ph.D. / Scientist - Molecular Toxicologist

The candidate will develop and implement cellular molecular and genetic approaches to profile mechanisms of toxicity and identify surrogate markers of toxicity. A Ph.D. in Biological Sciences with a strong laboratory experience in standard molecular biology technologies, genomics methods like gene expression analysis with microarrays and/or proteomics and biological database searching is required. Experience related to mechanistic toxicology is desirable. The candidate must have strong scientific skills as well as the ability to collaborate with Drug Discovery teams and laboratories.

Head - Pathology

The candidate will direct the laboratory of Pathology of P&U Worldwide Toxicology Operations in Italy.

The qualifications for this position include strong expertise in toxicologic pathology and laboratory animal pathology. MD/DVM/Ph.D with ACVP Board Certification or equivalent is required, as well as more than 10 years experience in an international industrial environment.

The candidate must have strong scientific, managerial and communication skills as well as the ability to collaborate with teams of scientists from diverse disciplines. Familiarity with GLP policies and drug regulatory testing requirements is also essential.

Qualified candidates should send their resume to:

Diana Didoni - Human Resources

Pharmacia & Upjohn S.p.A.

Via R. Koch, 1.2 20152 Milano, Italy

E-mail: Diana.Didoni@eu.pnu.com

No later than May 25, 1999



Cancer Center

Clinical Cancer Geneticist

The UCSF Cancer Center is recruiting a clinical cancer geneticist at the assistant, associate, or full professor level to lead the Cancer Risk Program and to pursue clinical, epidemiological, or basic research in cancer genetics. This is an ideal position for a clinician-scientist to engage in translational research at a leading academic cancer center.

You will have a solid background in medical genetics, medical or surgical oncology, or clinical epidemiology (with emphasis on genetics). You will have a research portfolio in cancer genetics or in genetic epidemiology and a keen interest in genetic counseling of patients at risk for hereditary cancer.

The Cancer Risk Program consists of a multidisciplinary team that counsels over 400 patients annually. Testing for mutations in common cancer susceptibility genes (e.g. BRCA1, BRCA2, and mismatch repair genes) is offered. As Program Director, you would lead the clinical program and seek extramural funds for continued research using the large registry database of genetically tested patients. Salary would be competitively based on training and experience.

Candidates should send a letter of intent, C.V., and names and addresses of 3 referees to:

Tracey Lee
Human Resources Office
UCSF Cancer Center
1600 Divisadero Street, C 126-C
San Francisco CA 94143-1297

The University of California is an Equal Opportunity/Affirmative Action Employer. Minority candidates and women are encouraged to apply.

Agricultural Research Service

U.S. Department of Agriculture

Vacancy Announcement

NATIONAL PROGRAM LEADER FOR GLOBAL CHANGE

This senior-level position is with the ARS National Program Staff, which directs research policies and programs for USDA's chief in-house science agency. Responsibilities include global change research program planning, implementation, and evaluation, as well as the Agency's technical expert in interagency and international global change collaborations.



For details, see www.ars.usda.gov/afm/hrd/resjobs/ars-x9e-0266.htm or call 301-504-1337.

This position is located in ARS Headquarters in Beltsville, MD.

USDA/ARS is an equal opportunity employer and provider

CANCER CENTER OF THE MEDICAL COLLEGE OF WISCONSIN JOSEPH P. HEIL CHAIR IN MOLECULAR GENETICS AND ONCOGENESIS

Applications are invited for the newly established Joseph P. Heil Chair in Molecular Genetics and Oncogenesis. Candidates for this senior, endowed position should have a distinguished record of research accomplishment and should be qualified for appointment as Associate Professor or Professor in one of the basic science or clinical departments of the Medical College. In addition to maintaining a federally funded research program, the successful candidate will provide leadership for the Cancer Center's multidisciplinary basic and translational Research Program in Molecular Genetics and Oncogenesis. Investigators affiliated with this program currently hold \$5.5 million in annual peer-reviewed funding.

The Medical College of Wisconsin [www.mcw.edu] is in a period of expansion and is pursuing new initiatives in human and molecular genetics, cellular neuroscience, cardiovascular biology and cancer research. The newly completed Health Research Center provides 50,000 sq. ft. of additional laboratory research space dedicated to the development of these initiatives. The Medical College shares its campus with the Blood Research Institute of Wisconsin [www.bloodctrwise.org], the Children's Hospital of Wisconsin [www.chw.org] and Froedtert Memorial Lutheran Hospital [www.froedtert.com]. Froedtert Hospital has just opened a new Clinical Cancer Center, consolidating services for adult cancer patients and expanding the opportunities for translational research.

Applications will be reviewed upon receipt and should be submitted by June 30, 1999. Please send *curriculum vitae*, a cover letter detailing research interests, and names and addresses of three references to:

J. Frank Wilson, M.D.
Director, Cancer Center
Medical College of Wisconsin
8701 Watertown Plank Road
Milwaukee, WI 53226
e-mail: jfwilson@mcw.edu



CANCER CENTER

Affirmative Action/Equal Opportunity Employer

RESEARCH and DEVELOPMENT SCIENTISTS

Avigen, Inc., a leader in the development of gene therapy based on adeno-associated virus (AAV) for the treatment of inherited & acquired diseases, has a great opportunity for a number of hands-on positions to join our research team in Alameda, Ca.

RESEARCH SCIENTISTS

We have opportunities for 1-2 molecular virologists (preferably with backgrounds in herpes or adenovirus biology), or cell biologists, to design and implement new methods for AAV vector production. Members of the group will also be involved in the development of new viral vector systems. Candidates must have a Ph.D. or MD and at least 3 years of postdoctoral experience in a relevant field.

DEVELOPMENT SCIENTIST

Position available for Development and Analytical Scientist, who will be responsible for process and assay development in the production of recombinant AAV vectors for clinical trials. Candidates must have a Ph.D. and at least 2 years experience in the relevant areas of purification and assay development. Experience with live virus production, GMP and small/large scale mammalian cell culture a plus.

We offer very competitive salaries, benefits paid in full by the Company, stock options, 401(k), and an exciting opportunity to work with a dynamic team focused on exploring the impact of gene therapy on selected human diseases.

To apply, email/send/fax resume, specifying position of interest, to: Avigen, Inc., Human Resources, 1201 Harbor Bay Parkway, Suite 1000, Alameda, CA 94502; e-mail: sdelph@avigen.com, fax: (510) 748-7155. EOE



NHRI

National Health Research Institutes Taiwan, R.O.C. (<http://www.nhri.org.tw>)

Investigator / Postdoctoral Fellow / Director / Technology Transfer Officer

The National Health Research Institutes (NHRI), a rapidly growing non-profit academic organization, cordially invites motivated scientists to join its Research Divisions and explore the opportunity to work in surroundings where creativity and innovation drive research targeting critical human diseases and unmet therapeutic needs.

Investigator and Postdoctoral Fellow

Positions open at the level of Investigator, Associate Investigator, and Assistant Investigator (the equivalent of Assistant Professor, Associate Professor, and Professor in Universities) at the following Divisions. Postdoctoral Fellow positions are also available. Candidates should have a Ph.D., M.D. or equivalent degree in related fields with excellent publication records:

(A) Division of Biostatistics

The Division is seeking outstanding researchers for positions at different levels. These positions offer competitive start-up funds and access to core facilities. No teaching obligation is necessary. A Ph.D. or equivalent degree in statistics, biostatistics, or related fields is required. Established records of statistical and collaborative research in health related sciences are essential. Good skills in problem solving, interpersonal communication and coordination will be a plus. The Division actively engages in NHRI intramural and extramural research design, data management and analysis, and commits to the advancement of biostatistical research and education in Taiwan.

Correspondent: Dr. Jen-pei Liu

E-mail: jpliu@nhri.org.tw
Tel: 886-2-2653-4401 ext. 7620
Fax: 886-2-2789-0253

(B) Division of Biotechnology and Pharmaceutical Research

The Division is embarking on an innovative and integrated molecular biology, drug discovery program based on combinatorial chemistry, structure-based drug design and high-throughput bioscreening. Applicants are invited in the areas of tumor biology, cell biology, protein chemistry, virology, animal models, pharmacokinetics, drug metabolism, medicinal chemistry, and combinatorial chemistry. Synthetic, computation and analytical chemists are also welcome.

Correspondent: Dr. Ming-Chu Hsu, Director

E-mail: mingchu@nhri.org.tw
Tel: 886-2-2653-4401 ext. 6110
Fax: 886-2-2789-0264

(C) President's Laboratory

Major research areas of this Laboratory are the study of HPV/HCMV and tumor metastasis. Applicants should have background either in viral oncology, transcriptional regulation, or in cell biology.

Correspondent: Dr. Cheng-Wen Wu, President

E-mail: ken@nhri.org.tw
Tel: 886-2-2653-4401 ext. 8000
Fax: 886-2-2651-3742

(D) Division of Clinical Research

Positions open at all levels. A Ph.D. and/or M.D. degree and postdoctoral training in infectious diseases are required for Investigator positions. Postdoctoral fellow positions are available to participate in speciation and testing of antimicrobial susceptibility of human yeast pathogens; to identify genes in the Cphlp and Efglp pathways of *C. albicans* involved in viru-

lence of pathogenic yeast; and to investigate the antimicrobial resistance. Experience with recombinant DNA techniques, molecular biology, genetics, and/or diagnostic medical microbiology is preferred.

Correspondent: Dr. Monto Ho, Director

E-mail: hjlo@nhri.org.tw
Tel: 886-2-2653-4401 ext. 7121
Fax: 886-2-2789-0254

(E) Division of Health Policy Research

A newly established multidisciplinary research division on health care policy, national health insurance, indicator development and program evaluation. Positions for Ph.D./M.D./Dr.P.H. holders: Behavioral Scientist/Social Scientist, Senior Health Economist, Epidemiologist, Health Care Policy Analyst/Infrastructure Scientist.

Correspondent: Dr. Yaw-Tang Shih, Director

E-mail: sun1125@nhri.org.tw
Tel: 886-2-2652-4154
Fax: 886-2-2789-0252

Director, Department of Research Resources

The Department of Research Resources aims at providing integrated research resources, technical and material support, and training programs nationwide to medical and health researchers. The Department is composed of five Sections: Section of Planning and Development, Section of Computer and Information, Section of Education and Training, Section of International Cooperation, and Medical Library. Applicants should have experiences and strong coordination ability in building up these infrastructures for medical research. For more details, please visit our web site.

Correspondent: Dr. Cheng-Wen Wu, President

E-mail: ken@nhri.org.tw
Tel: 886-2-2653-4401 ext. 8000
Fax: 886-2-2651-3742

Technology Transfer Officer

Available for person(s) that are familiar with technology transfer, licensing, patent applications or with proven skills in related medical management or research. The successful candidate should have a minimum of three years' experience in technology transfer. No age cap for this position.

Correspondent: Dr. Chung-Ming Chang, Director

Dept. of Intramural Research Affairs
E-mail: tonychang@nhri.org.tw
Tel: 886-2-2653-4401 ext. 8300
Fax: 886-2-2789-0274

Application should include: A letter of intent, curriculum vitae with publication list, a brief research proposal, reprints of selected publications, and three reference letters sent directly to the correspondent.

Address:

National Health Research Institutes
128 Yen-Chiu-Yuan Road, Sec II
Taipei 115, Taiwan

UNITED STATES DEPARTMENT OF AGRICULTURE
USDA **AGRICULTURAL**
RESEARCH
SERVICE
US NATIONAL ARBORETUM

Research Botanist (Plant Taxonomist), Floral and Nursery Plants Research Unit, US National Arboretum, Washington, DC. ARS is seeking applications for a senior-level Research Botanist (Plant Taxonomist; GS14/15) who will be responsible for original biosystematic, taxonomic, and nomenclatural research on cultivated woody plants and their wild-occurring allies of potential scientific, economic, and landscape utility. The primary research emphasis is on ornamental and floral plants cultivated in the United States. The incumbent has primary responsibility to initiate, lead, and coordinate a national collaborative effort to develop a major reference publication which would provide an authoritative reference for use by academic instructors, nursery and landscape professionals, and home gardeners. The incumbent plans, leads, and coordinates taxonomic studies, revisions, and monographs of selected woody or herbaceous genera of current or potential ornamental value; contributes to the growth, content, and proper curation of the Arboretum's Herbarium; participates as a leader/member of plant explorations to collect and introduce documented germplasm and herbarium specimens. Candidates must have: Research experience leading to peer-reviewed publication; Knowledge of floristics, classical plant systematics, molecular and biosystematics, and plant phylogeny; Ability to plan, organize, and coordinate a regional or national floristics project; Ability to coordinate domestic and international field expeditions; and Knowledge of ornamental plants and their wild-occurring relatives. A Ph.D. is desirable. Must be a U.S. citizen. Salary is commensurate with experience (\$68,570 - \$104,851 per annum). For information on application procedures/forms contact: USDA, ARS, Human Resources Division, 301/504-1351; or <http://www.ars.usda.gov/>. Applications in response to this advertisement should be marked ARS-S9E-9186 and must be postmarked by May 24, 1999.

The Agricultural Research Service is the principal scientific research agency of the US Department of Agriculture and an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

COURSES

WORKSHOP ON MOLECULAR EVOLUTION
Marine Biological Laboratory, Woods Hole
August 1 - August 13, 1999
plus extended special topics August 14-August 20, 1999

A series of lectures and mini-symposia exploring multiple approaches to molecular and genome evolution with a computer laboratory for phylogenetic and sequence analysis. Current topics in molecular evolution including the theoretical basis for comparative sequence analysis and phylogenetic tree construction, comparative analysis of genomes, origins of organelles, evolution and diversity of microorganisms, and molecular approaches to population biology will be addressed. Enrollment limited to 60 students. Latest course information may be found on the Web at www.mbl.edu/COURSES/ME.

Co-Directors: Mitchell L. Sogin, Marine Biological Laboratory, and Daniel Davison, Bristol-Myers Squibb PRI. **Faculty:** Michael Cummings, Marine Biological Laboratory; Sean Edy, Washington University School of Medicine; Scott Edwards, University of Washington; Jonathan Eisin, The Institute of Genomic Research; Andy Ellington, University of Texas; Joseph Felsenstein, University of Washington; David H.A. Fitch, New York University; Claire M. Fraser, The Institute of Genomic Research; Mary Kuhner, University of Washington; Andrew MacArthur, Marine Biological Laboratory; David Maddison, University of Arizona; Michael Miyamoto, University of Florida; Gary Olsen, University of Illinois; William Pearson, University of Virginia Health Sciences Center; Ken Rice, SmithKline Beecham Pharmaceuticals; Margaret Riley, Yale University; David Swofford, Smithsonian Institution; and others to be announced.

Course Fee: \$850 (includes room & board but not Special Topics Session) **Application Deadline:** May 11, 1999.

For information and application forms contact: Carol Hamel, Admissions Coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543-1015, Tel: (508) 289-7401; admissions@mbi.edu <www.mbl.edu>

An Equal Opportunity/Affirmative Action Institution.

The University of Wisconsin-Madison invites applications for four tenure-track faculty positions in food safety. Successful candidates will develop innovative, responsive and highly competitive research programs that interact/collaborate with one another and with other faculty at UW-Madison who conduct research applicable to food safety issues. They will coordinate their research/outreach activities through UW-Madison's Food Research Institute, have primary/joint faculty appointments as appropriate in participating departments, advise graduate students, teach undergraduate and graduate courses in areas of expertise as related to food safety, and advise government and industry on food safety issues related to areas of expertise. Candidates with research specialization in the following areas are sought:

- 1) The biochemistry and genetics of mycotoxin syntheses. Appropriate disciplines are microbiology, molecular biology or biochemistry. Assistant Professor level.
- 2) The physiology and ecology of mycotoxigenic fungi and factors that influence plant susceptibility and/or resistance to infection by mycotoxigenic fungi. Appropriate disciplines are plant pathology, mycology or microbiology. Assistant Professor level.
- 3) The immune response to food-borne pathogens and their toxins and the roles of food-borne pathogens and their toxins on immune modulation. Appropriate disciplines are immunology or microbiology. Assistant Professor level.
- 4) Novel engineering applications; investigate novel approaches to detecting and controlling food-borne pathogens and their toxins in foods, food processing equipment, and food manufacturing facilities. Appropriate disciplines are chemical, biosystems, biomedical, agricultural or food engineering. Assistant or Associate Professor level. (Note: the requirements for a tenured position include a Ph.D. or equivalent and a demonstrated record of excellence in research, teaching and service.)

Applications must include a CV and a statement describing research interests and accomplishments as related to one of the specific descriptions above. Applicants should arrange for three letters of reference to be sent on their behalf. Applications and letters of reference should be sent by September 15, 1999 to Professor Michael Pariza, c/o Dean Elton Aberle, 140 Agriculture Hall, 1450 Linden Drive, Madison, WI 53706-1562. Inquiries may be sent by email to Janis Simons at janis.simons@ccmail.adp.wisc.edu.

Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *The University of Wisconsin-Madison is an Equal Opportunity and Affirmative Action Employer. Women and minority candidates are especially urged to apply.*

LI-COR has produced automated systems for biological sciences for over 28 years. Our Biotechnology Division, innovators in infrared fluorescence DNA detection technology, has several key openings.

Field Applications Scientists
 (Western and Midwestern Regions)

You will provide technical support for LI-COR's DNA analysis products and participate in the sales process through seminars and training. Requires a Ph.D. in biological sciences with demonstrated experience in genotyping, sequencing or molecular biology. Must possess strong communication skills, enjoy working with customers, and have a demonstrated ability to teach and present technical information. Familiarity with computer software and instrumentation systems is desirable. This position involves a moderate amount of travel.

LI-COR offers a challenging and dynamic working environment with competitive salaries and benefits. For more information, visit our web site at www.licor.com/biohome.htm. Please send your resume to the Human Resources Dept., LI-COR, Inc., P.O. Box 4425, Lincoln, NE 68504. EOE.

LI-COR®
 Biotechnology Division

Sontra is a growing research and development company utilizing proprietary ultrasound technology to enhance skin permeability for applications in transdermal drug delivery and non-invasive diagnostics. As part of our team, you will have the chance to impact the company and participate in the creation of new, innovative solutions to widespread medical problems.

Director of Transdermal Research

We are seeking a dynamic individual to be responsible for the design and leadership of our Transdermal studies. Duties will include physiology, prototype evaluation, and interaction with both in-house engineering personnel and outside collaborators.

The successful candidate should have an exceptional record of achievements in transdermal product development, Ph.D. with 10+ years of industrial experience and a minimum of 5 years in a management role.

We offer an excellent compensation and benefits package including health, dental, life, LTD, 401(k) and 3 weeks vacation per year.

Please send your resume to
Human Resources

Sontra Medical, Inc.

58 Charles Street, Cambridge, MA 02141



SONTRA

At Monsanto, we share a common goal-to help people lead longer, healthier lives. We are pioneering the use of life science technologies to understand how the connections between human health, nutrition and agriculture can be used to develop products to improve the quality of life for everyone, everywhere.

Regulatory Science Project Leader

We seek senior scientists with extensive experience in plant biotechnology, biochemistry or molecular biology to lead the development and implementation of science-based safety assessment strategies and the completion of scientific studies necessary to establish the food, feed and environmental safety of plant biotechnology products.

Candidates must have a Ph.D. with 4-7 years experience in a relevant field. A demonstrated record of project leadership is essential. Must work well within a multi-disciplinary team and communicate effectively with diverse audiences. Knowledge of risk assessment, food safety, US and International regulations and data requirements for genetically modified plants is advantageous.

We offer a competitive salary and benefits package. For consideration, please submit your resume to: **The Monsanto Company, Job Code: MKT-3440, 800 N. Lindbergh Blvd., Mail Zone: E2NB, St. Louis, MO 63167; Fax: 314/694-2014. EEO/AA Employer M/F/D/V. Please visit our website at www.monsanto.com**

MONSANTO

Food • Health • Hope™



NOVARTIS

METABOLIC AND CARDIOVASCULAR DISEASES

Innovative. Progressive. Responsive. This best describes our philosophy at Novartis Pharmaceuticals Corporation, a Novartis Group Company formed from the merger of Ciba and Sandoz. Novartis is a world leader in Life Sciences with core businesses in Healthcare, Agribusiness and Nutrition. Focused on novel healthcare solutions, we sustain our leadership position by discovering, researching, developing and manufacturing innovative prescription drugs that treat a wide variety of diseases and conditions, and in the process, help people live longer, healthier lives. To do this effectively, the Novartis Group invests more than \$2 billion annually in healthcare research and development. In Pharmaceuticals, our technologies and focus is on the therapeutic areas of cardiovascular and metabolic, transplantation/immunology, arthritis/inflammation/bone, nervous system, dermatology, oncology and respiratory.

We invite you to join us at our state-of-the-art facility:

Postdoctoral Fellowships

One position will use information gained from model organisms to explore novel aspects of insulin signaling and insulin regulated gene transcription. (Position HB/PD-6516)

Another position will study insulin signal transduction pathways with the goal of identifying novel proteins which impact and regulate this system. (Position HB/PD-6517)

Working within a department of multidisciplinary scientists involved in research of type II diabetes, these projects will contribute to a better understanding of the mechanisms of insulin resistance. The qualified candidates will have a Ph.D. in biochemistry, molecular, or cellular biology with experience in signal transduction and/or transcriptional regulation. An interest in diabetes and metabolic diseases is preferable; strong communication skills and an ability to work within a team environment are essential. These postdoctoral positions, which encourage creative thinking and offer ample opportunities for publication and research presentations, will be for two years. Please refer to Position indicated above on resume and envelope, or as the subject of your E-mail.

Research Scientists

These positions will involve defining new targets for drug discovery in metabolic diseases, as well as participating in ongoing drug discovery programs. The qualified candidates should have significant laboratory experience using both biochemical and molecular techniques, particularly those techniques used in the study of signal transduction pathways and regulation of gene expression. In addition, the candidates should have demonstrated an ability to work in an independent manner, providing input in the design of experiments and interpretation of results. The positions require a master's degree plus one year of experience, or a bachelor's degree plus 3 years of experience. Please refer to Position 6515 on resume and envelope, or as the subject of your E-mail.

We offer competitive salaries, comprehensive benefits and the excitement of having a significant impact on the programs of an international leader. **PRINCIPALS ONLY:** send your resume/ curriculum vitae and letter of interest, indicating position code on resume AND envelope, or as the subject of the e-mail, to: R&D Staffing, Novartis Pharmaceuticals Corporation, 556 Morris Avenue, Building SEF 1029, Summit, NJ 07901; e-mail hrstaffrd.phuseh@pharma.novartis.com. We are an equal opportunity employer M/F/D/V. We appreciate your interest in our Company. Unfortunately, we will only be able to respond to those candidates chosen for interviews or additional follow-up.

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Cyclic Nucleotide Phosphodiesterases, June 12-17 at Waterville Valley Resort in New Hampshire.

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THIS WEEK IN SCIENCE

CONTINUED FROM PAGE 553

TUMOR SUPPRESSION BY UBIQUITINATION?

The von Hippel-Lindau (VHL) tumor suppressor gene is mutated in most kidney cancers and in VHL disease, a familial cancer syndrome that predisposes individuals to a variety of tumors. The VHL protein exists in a complex with proteins that participate in transcriptional regulation, ubiquitin-mediated protein degradation, and cytokine signaling. Kamura *et al.* (p. 657) and Skowrya *et al.* (p. 662) identify a new protein in the VHL complex, called Rbx1, and show that its homolog in budding yeast is a component of a ubiquitin ligase that is required for ubiquitination of multiple substrates, including the G₁ cyclin Cln1. Rbx1 appears to both recruit substrates to the ligase and stimulate its intrinsic ubiquitination activity. The VHL complex may regulate the degradation of multiple proteins, which would explain the remarkable pleiotropy of VHL mutations (see the Perspective by Tyers and Willems).

INTEGRAL KINASE

During retroviral infection, a complementary DNA copy of the viral genome becomes integrated into the host cell DNA. This process requires the DNA nicking and joining activities of the virally coded integrase protein. Daniel *et al.* (p. 644) show that retroviral integration also requires a cellular DNA repair protein, DNA-dependent protein kinase (DNA-PK). This finding

suggests that the initial events in integration are detected as DNA damage by the host cell and that completion of the process involves the DNA-PK-mediated repair pathway.

PREVENTING ZINC-RELATED NEURONAL DEATH

Tissue plasminogen activator (tPA) has recently been introduced as a new treatment for stroke. In addition to its well-established action of dissolving clots, Kim *et al.* (p. 647) show that it may also have further neuroprotective effects. tPA reduces zinc-induced neuronal death in vivo and in vitro. The mechanism of action is not due to tPA binding of zinc but rather to an antioxidant effect. Depending on the route of administration, this action can counterbalance another excitotoxic side effect of tPA that is mediated by plasmin.

GENETIC COMPONENT OF HOMOSEXUALITY REVISITED

Several years ago, *Science* published genetic analyses of families which suggested that a region of Xq28 was associated with homosexuality. In a study of 52 families, Rice *et al.* (p. 665) report that their data for four markers does not support such a genetic linkage. It will be necessary to accumulate even larger data sets in order to understand the underlying bases of this complex behavior (see the news story by Wickelgren).

TECHNICAL COMMENT SUMMARIES

T Cell Turnover in SIV Infection

The full text of these comments can be seen at www.sciencemag.org/cgi/content/full/284/5414/555a

H. Mohri *et al.* (Reports, 20 Feb. 1998, p. 1223) studied the turnover of CD4 and CD8 T lymphocytes in normal rhesus macaques and in those infected with simian immunodeficiency virus (SIV). Their analysis showed a "large difference between death and proliferation rates for each of the lymphocyte populations," requiring a "large source ... of new cells to maintain the dynamic equilibrium," thus they raised the question, "Why ... is CD4 T cell depletion observed and not CD8 T cell depletion?"

Z. Grossman *et al.* disagree with this interpretation, noting that "the death of immune activated cells serves to control their earlier accelerated proliferation and need not affect the equilibrium condition of the population as a whole" and "has little bearing on the issue of depletion." They offer a model "of normal, ongoing immune activation" that could account for the data without invoking "killing" of ... lymphocytes in infected individuals, in access of proliferation." I. M. Rouzine and J. M. Coffin propose an alternative explanation to that in the report, one based on dilution of the label (that was used to mark the turnover of T cells) according to a model of T cell replenishment.

In response, A. S. Perelson *et al.* provide new data collected "19 weeks after the stop of labeling." They state, "We agree with both comments that immune stimulation in SIV infection may be elevated and may be the cause of the increased proliferation of all of the various lymphoid populations that we measured. However, because as many as 30 to 40% of T cells are labeled after 3 weeks and no antigen was intentionally given to stimulate a response, we believe that the majority of cells we monitored are representative of the general T cell population, although a minority may be antigen-activated."



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The background image shows a female scientist with dark hair and glasses, wearing a white lab coat. She is holding a pink-tipped pipette and looking down at a piece of paper. The entire scene is framed within a computer browser window. The browser's address bar shows 'http://www.chemdex.com'. The website header includes the Chemdex logo, the tagline 'Search less. Discover more.', and navigation links for 'About Chemdex', 'Chemdex News', and 'Contact Us'. A yellow navigation bar contains links for 'Product Search', 'Your Favorites', 'Track Orders', 'Support', 'Your Profile', and 'Current Orders'. The main content area features a large quote from a user, overlaid on the scientist's image. The quote is in large, bold, white letters with a green outline. At the bottom of the browser window, a portion of a periodic table is visible, showing elements like IB, IIB, AI, and a row with numbers 28, 29, 30, and 31.

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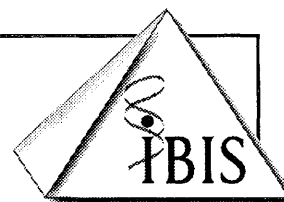
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Ibis Therapeutics

Position in North Coastal San Diego County



A Division of Isis Pharmaceuticals, Inc.

Ibis Therapeutics, a division of Isis Pharmaceuticals, has developed a novel program to discover low molecular weight orally-bioavailable drugs that bind RNA.

Senior Scientist

We are seeking a qualified individual to be a key member of our functional screening program. Ibis Therapeutics uses exciting new technologies to first evaluate both prokaryotic and eukaryotic RNA targets and then design and test small molecule drugs directed against those targets. The functional screening group is involved in target selection, target validation, assay development, and high throughput screening. The successful candidate will have 3+ years post doctoral experience in the area of RNA/protein interactions, eukaryotic translation, translational regulation, or related fields. (Code 323)

RNA Bioinformatics

The Ibis RNA Bioinformatics Group develops and uses new state-of-the-art bioinformatics tools to analyze prokaryotic and eukaryotic genomes to identify key molecular targets in RNA. The group is currently developing programs that use comparative genomic analysis, covariation, evolutionary programming and other computational techniques to identify RNA structures involved in regulation of gene expression. Candidates are desired with the relevant computational and applications expertise. (Code 304)

Chemistry

The Ibis Chemistry Group is focused on making fundamental advances in the design of small molecules that bind RNA and disrupt key RNA/protein interactions. The group develops combinatorial chemistry and uses automated synthesis instrumentation and cheminformatics to make libraries of compounds focused on binding RNA. Candidates with a BS/MS or PhD and expertise in synthetic organic chemistry, demonstrated laboratory and experience in heterocyclic chemistry, solid phase organic synthesis, computational methods or combinatorial chemistry are encouraged to apply. (Code 305)

Mass Spectrometry

Ibis is developing novel screening technology using a 7 T actively shielded FT-ICR mass spectrometer to identify small molecules that bind specific RNA targets. The mass spectrometry group will focus on advancing this novel methodology for high throughput analysis of libraries of compounds that bind RNA targets. We are seeking candidates with a PhD and experience in developing FT-ICR software and hardware. (Code 306)

Learn more by visiting us at: www.ibisrna.com

Ibis Therapeutics is located in North Coastal San Diego County. For consideration, please send a detailed CV, including job code, a cover letter and contact information for three references to: **Ibis Therapeutics, 2292 Faraday Ave., Carlsbad, CA 92008; Fax: (760) 603-2700.** Principals only. No phone calls please.

Gen-Probe, a growing pioneer and leader in DNA probe-based diagnostics, has the following career opportunity in sunny San Diego.

RESEARCH SCIENTIST

This position assumes an important role in the development of assay and instrument systems for the detection and sequence analysis of amplified nucleic acids. Requires a Ph.D. in Chemistry, Biochemistry, Molecular Biology, or a related field with 1-3 years postdoctoral or other related experience. Must be proficient in nucleic acid chemistry/biochemistry/molecular biology techniques, instrumentation for physical characterization of nucleic acids, and sophisticated data analysis. Experience with fluorescence spectroscopy and oligonucleotide arrays is preferred. Statistical experimental design (DOE) experience a plus.

Gen-Probe offers dedicated professionals challenging opportunities within a fast-paced corporate environment. Candidates should send resumes to: **Gen-Probe Incorporated, Attn: HR Dept./Code: G99/74/AE, 10210 Genetic Center Drive, San Diego, CA 92121; Fax (619) 410-8001 or Email: www.gen-probe.com** Please call our job line at (619) 410-8020. Gen-Probe supports a drug-free work environment. EOE.



National Eye Institute National Institutes of Health

The Clinical Immunology Section, Laboratory of Immunology, has an opening for a **Staff Scientist**. This is a renewable position with a five year term. Candidates will be self-motivated individuals with an expertise in cellular and molecular immunological techniques using primary human cells and tissues. The successful candidate will be part of a highly interactive group of scientists and clinicians engaged in basic research and clinical trials aimed at developing novel immunotherapies for autoimmune diseases. Candidates must have a doctoral degree or equivalent training and be U.S. Citizens or resident aliens. Salary (base = \$58,027) is commensurate with qualifications and is accompanied with full benefits. Applicants should send their curriculum vitae, bibliography, and three letters of recommendation to:

Jack A. Ragheb, M.D., Ph.D.
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Bethesda, Maryland 20892-1857
(e-mail) jr50b@nih.gov

Deadline for receipt of applications is 5/31/99.

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POSITIONS OPEN

TENURE-TRACK POSITION

The Department of Pathology and Laboratory Medicine of The University of North Carolina at Chapel Hill is seeking highly motivated applicants for tenure-track research positions at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Candidates must hold a Ph.D., D.V.M., or M.D. degree. Applicants should have a record of productive research in pathobiology. The principal responsibilities will be to develop a successful research program and to contribute to Departmental teaching of graduate students and medical students. Diagnostic service activities are options for appropriate candidates. The Department is particularly interested in individuals working in the field of vascular biology, which already has a strong base in the Department and the University. However, Investigators with other areas of specialization pertaining to mechanisms of disease also are encouraged to apply. Send a letter of application with a statement of research interests and accomplishments, curriculum vitae, and five names and addresses for letters of recommendation to: **Frank C. Church, Ph.D., Department of Pathology and Laboratory Medicine, Campus Box #7525, University of North Carolina, Chapel Hill, NC 27599-7525.** See website: <http://www.pathology.med.unc.edu/path/> for information about the Department. *Minority and female candidates are encouraged to apply and identify themselves. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR

The Division of Pediatric Surgery at Duke University Medical Center invites applications for a position as **DIRECTOR** of the Pediatric Surgical Research Laboratory. Interested candidates should hold the Ph.D. degree and have had at least several years of postdoctoral experience. The current focus of the laboratory is the study of the genetics and molecular biology of neoplasms affecting children. Interested applicants should have expertise in all of the common molecular biological techniques. Particularly welcome are applicants with an established interest in the regulation of apoptosis and the relationship between neoplasia and abnormalities in programmed cell death signaling pathways. Responsibilities include the supervision of Research Fellows within the laboratory as well as the ultimate development of an extramurally funded research program. Contact: **Dr. Michael A. Skinner, Division of Pediatric Surgery, Box 3815 Duke University Medical Center, Durham, NC 27710. FAX: 919-681-8353.** *Duke University is an Equal Opportunity Employer.*

FACULTY POSITION BOSTON UNIVERSITY SCHOOL OF MEDICINE

Applications are invited from accomplished scientists in neurobiology, molecular genetics, or cell biology. Start-up funds, core facilities, and laboratory space are available to establish a state-of-the-art research program. The appointment can be at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level. Please send curriculum vitae, a brief statement of research plans, and the names and telephone numbers of at least three references to: **Dr. David H. Farb, Department of Pharmacology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.** *Equal Opportunity/Affirmative Action Employer.*

RESEARCH TECHNICIAN III

Technician wanted to work in pharmacology laboratory. M.S. in biomedical science preferred. Minimum B.S. with three years of experience. Research techniques including tissue culture; RNA, DNA, protein isolation; gel electrophoresis; Southern/Northern/Western blotting; PCR, gene transfection, flow cytometry a plus. Interested applicants should send résumés to: **Dr. Stacey Berg, 6621 Fannin, MC 3-3320, Houston, TX 77030. FAX: 713-770-4039.** *Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.*

POSITIONS OPEN

SYSTEMATIST-PHYLOGENETICIST

The Department of Biology at The University of New Mexico is seeking applicants for a full-time, tenure-track position at the **ASSISTANT PROFESSOR** level in systematics with expertise in phylogenetic theory and analysis, to begin August 21, 2000, pending budgetary capability. Minimum requirements: Ph.D. in some subdiscipline of biology by the start date. Preferred characteristics: postdoctoral experience; familiarity with statistical approaches to phylogenetic inference and a thorough understanding of the theory of phylogenetic analysis and algorithm construction; ability to develop an independent, vigorous research program; demonstrated excellence in teaching at the undergraduate through graduate levels; and enthusiasm for working with colleagues whose interests include a broad array of disciplines and organisms. Teaching responsibilities are likely to include a course in phylogenetic theory and analysis at the upper-division/graduate level, and participation in introductory biology and in the systematics curriculum.

Information concerning job requirements, applications, and the Biology Department also can be obtained on the World Wide Web at website: <http://biology.unm.edu/Welcome.html> or by request to: **Systematist/Phylogeneticist Search Committee, Department of Biology, The University of New Mexico, Albuquerque, NM 87131-1091. Telephone: 505-277-3411; FAX: 505-277-0304.** Completed applications must be received at the above address by June 25, 1999.

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ASSISTANT PROFESSOR ANATOMY

The Department of Anatomy of the University of Puerto Rico School of Medicine invites applications for a full-time tenure-track Assistant Professor position. The University of Puerto Rico School of Medicine is a fully accredited U.S. medical school, with modern core facilities for the support of research. Applicants should have a Ph.D. and preferably postdoctoral experience. The successful applicant will be expected to develop and conduct a productive research program with high potential for attracting external funding support. Area of research interest is open. Teaching will be in the gross anatomy and embryology components of an integrated structure and development course for medical students, and may be in either English or Spanish. Evidence of teaching proficiency and a strong commitment to graduate student training are highly desirable. Review of applications will begin immediately and continue until the position is filled. Send curriculum vitae, statement of research plans, and names of three references to: **Dr. John G. H. Cant, Director, Department of Anatomy, School of Medicine, University of Puerto Rico, GPO Box 365067, San Juan, PR 00936-5067. Telephone: 787-754-6274; FAX: 787-767-0788.** For inquiries but not for applications, e-mail: j.cant@rcmaca.upr.clu.edu. *The University of Puerto Rico is an Equal Opportunity/Affirmative Action Employer.*

We are seeking an outstanding individual with a Ph.D., D.V.M., M.D., or equivalent advanced degree to work with an established well-funded group of Investigators in the host-defense properties of the lung and basic mechanisms of oxidant injury to ion channels in alveolar cells. Experience with development and utilization of transgenic animals is highly desirable. Individuals with independent funding will be eligible for appointment as **RESEARCH ASSISTANT PROFESSOR** of anesthesiology and encouraged to establish an independent research program in these areas of research. Applicants should send curriculum vitae to: **Dr. Sadis Matalon, The Department of Anesthesiology, The University of Alabama at Birmingham, 619 South 19th Street, THT 940, Birmingham, AL 35233. FAX: 205-934-7437; e-mail: sadis.matalon@ccc.uab.edu.** *An Affirmative Action/Equal Employment Opportunity Employer.*

POSITIONS OPEN

PLANT PHYSIOLOGIST/BIOCHEMIST

The National Research Initiative Competitive Grants Program of the U.S. Department of Agriculture seeks a qualified scientist to serve as **PROGRAM DIRECTOR** for grants administration in the area of plant physiology and biochemistry. Candidates must have an advanced degree with major study in one of the areas listed above or a closely related field. It is preferable that the candidate have a Ph.D. or equivalent specialized experience. Familiarity with plant molecular biology and plant genetics is required for this position. This is a competitive vacancy, open to all United States citizens.

Closing date is May 17, 1999. Applicants will be evaluated against Quality Ranking Factors, which are detailed in the vacancy announcement. For information on the position, contact: **Mr. Jeffery Conrad, Acting Division Director, National Research Initiative Competitive Grants Program, Cooperative State Research, Education, and Extension Service, USDA, STOP 2241, 1400 Independence Avenue S.W., Washington DC 20250-2241. Telephone: 202-401-6188; e-mail: jeconrad@recusda.gov.** For information on application procedures/forms, contact: **The Human Resources Division, Telephone: 301-344-3960.** The Vacancy Announcement can also be obtained from the Human Resources Division or via the Internet, website: <http://www.recusda.gov/hrd/99-082.htm>. *USDA is an Equal Opportunity Employer.*

FDA, Center for Biologics Evaluation and Research, Office of Vaccines Research and Review, Division of Bacterial Products has an immediate opening for a **SENIOR STAFF FELLOW** who would be expected to develop an independent research program to study pathogenesis and/or immunology of infections caused by *Streptococcus pyogenes*, *Bacillus anthracis*, or *Yersinia* spp. The selected candidate would also be expected to participate in the regulation of bacterial vaccines. Laboratories are located on the NIH campus in Bethesda, Maryland. Appointment is for an initial two-year period and may be extended up to a total of seven years by mutual agreement. This appointment is equivalent to a "tenure-track" appointment, i.e., the candidate would be eligible for conversion to a permanent position if successful. Candidates must have an advanced degree, e.g., Ph.D. or M.D., and at least two years of postdoctoral experience and must be either U.S. citizens or resident aliens eligible for citizenship within four years. Salary range for candidates is from \$33,650 to \$89,142 per annum depending on training and experience. Candidates should send a curriculum vitae, bibliography, statement of research interest, and names/contact information for three references to: **Drusilla Burns, Center for Biologics Evaluation and Research, FDA, HEM-434, Building 29/Room 130, 8800 Rockville Pike, Bethesda, MD 20892.** *FDA is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR. Forest ecology. Tenure-track, academic year in University of Rhode Island Department of Natural Resources Science, starting fall of 1999. Ph.D. degree in forest ecology or closely related field required. Postdoctoral experience is highly desirable. Demonstrated ability to develop and maintain a vigorous, extramurally funded research program and to publish in refereed journals is required. University teaching experience preferred. Advise undergraduates and graduate students. Proven ability to interact effectively with resource management agencies is highly desirable. For more details see website: <http://www.edc.uri.edu/forestecol>. Submit by May 15, 1999, a letter of application, curriculum vitae, statements of teaching philosophy and research direction, transcripts, three letters of reference, and other materials to: **Dr. Peter W. C. Paton, Search Committee Chair, (Log# 191187), University of Rhode Island, P.O. Box G, Kingston, RI 02881.** *The University of Rhode Island is an Affirmative Action/Equal Employment Opportunity Employer, and is committed to increasing the diversity of its faculty, staff, and students. People from underrepresented groups are encouraged to apply.*



The Jackson Laboratory is an independent, not-for-profit mammalian genetics research institution, a major resource for the research community and a center for training in mammalian genetics. Designated a Basic Cancer Center by the National Cancer Institute, the Laboratory offers its 33 principal investigators the opportunity to conduct basic research in an interactive environment with excellent collaborative opportunities, unparalleled mouse and genetic resources and an outstanding shared scientific services program.

The Laboratory is located adjacent to Acadia National Park, an area of great natural beauty. For more information, see our website at: <http://www.jax.org>.

Staff Scientists

The Jackson Laboratory is currently recruiting faculty members in Cancer Genetics, Developmental Genetics, Neurogenetics, and Bioinformatics/Computational Biology. The successful applicant should have a Ph.D., M.D., or D.V.M., postdoctoral training, a record of research excellence and be able to initiate a competitive independent research program.

Postdoctoral Training

The Jackson Laboratory has a coordinated training program that provides broad experience in the skills necessary to fulfill the emerging and growing needs of academic and industrial programs in mammalian genetics and genomics.

In addition to carrying on independent research projects and improving their oral and written presentation skills, participants gain wider experience in the principles and practices of mammalian genetics, analysis of complex traits, genomics and positional cloning, bioinformatics, and the essentials of animal husbandry through a series of on-site courses, workshops, seminars and laboratory programs.

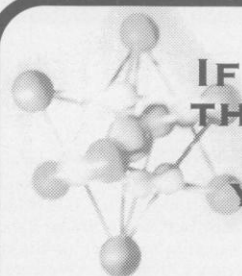
Information and application

Applicants should cite this ad No. S-04 and include: curriculum vitae, statement of research interests, and names of at least three references.

Direct applications for Staff positions to The Director's Office (email: rsp@jax.org), for Postdoctoral Training, apply to The Training Office (email: sbs@jax.org).

The Jackson Laboratory
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The Jackson Laboratory is an EOE/AA Employer



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ZymoGenetics, Inc. is a biotechnology company located in Seattle's historic Lake Union Steam Plant. As a subsidiary of NOVO NORDISK, the world's largest producer of industrial enzymes, ZymoGenetic's mission is to identify protein therapeutic opportunities and to take selected projects as far as clinical proof of concept studies. We offer intellectual challenge, state-of-the-art facilities and a generous benefits package. We are currently seeking qualified candidates for the following Seattle positions:

SCIENTIST/SR. SCIENTIST #37N299

Our Stem Cell Biology group is focused on the discovery of unique cytokines and cytokine receptors which play a role in tissue regeneration from pluripotent progenitor cells. With a current program focus on hematopoiesis and mesenchymal stem cell biology, we now seek to broaden our efforts, including a focus on embryonic stem (ES) cells; specifically to exploit their in-vitro differentiation capacity for the discovery of novel protein agents which control the lineage commitments of the progenitors in embryoid bodies. The ideal candidate will have a strong background in Stem Cell biology, together with an appreciation for regulation of progenitor cell differentiation by cytokine-signaling pathways. Also helpful would be familiarity with the practical aspects of protein therapeutic drug discovery, specifically including some background in screening and identification of genes by function. The candidate will have a minimum of 2+ years experience in stem cell biology, together with strong communication skills and a desire to be actively involved in research at the bench. Educational requirements: Ph.D.

SCIENTIST/SR. SCIENTIST #35N199

The Experimental Pathology Group is in search of an in vivo biologist to join a team testing novel proteins in animals to determine their functions and possible therapeutic utility. Responsibilities include design, performance and analysis of animal experiments to identify biologic activities of protein agents as well as identification and use of appropriate animal models for evaluation of therapeutic potential. The successful candidate will have strong written and verbal communication skills. Versatility and flexibility are essential. Must be able to work in multidisciplinary teams. Expertise in one or more of the following areas useful: thrombosis/vascular injury, evaluation of Transgenic and knockout phenotypes, inflammation, angiogenesis, and/or development biology. Educational requirements: Ph.D., DVM, or MD and 2-6 years of academic or industrial experience in physiology, pharmacology, or pathology.

SCIENTIST/SR. SCIENTIST #35N599

We are seeking a pathologist to join our Experimental Pathology group at the Scientist/Sr. Scientist level. The successful candidate will aid in the design and microscopic evaluation of animal studies for the elucidation of the biology and therapeutic uses of novel proteins. Strong interpersonal, verbal and written communication skills are required. Must have a DVM or equivalent degree, a Ph.D. in pathology or related field and experience in rodent pathology, including the pathology of genetically engineered mice. Board certification and experience in immunohistochemistry are highly desirable.

SCIENTIST/SR. SCIENTIST #36N199

We are seeking an innovative scientist to contribute to the establishment of biological function and mechanism of action of bioinformatics derived novel protein ligands. The successful candidate will have a broad understanding of cell biology and physiology as well as extensive experience in the evaluation of diverse biological activities using in vitro assays. In this position, you will be responsible for identification of new assay technologies. Knowledge of cytokines and growth factors, their receptors, and signal transduction pathways is required. In addition to experience with cell-based functional assays, experience in one or more of the following areas is a plus: primary cell culture, receptor ligand binding, CCD based fluorescent imaging assays (Ca⁺⁺, membrane potential, GFP). The position requires a Ph.D. in cell biology, endocrinology, physiology or related field, 5+ years of relevant experience and good verbal and written communications skills.

Job description and salary are commensurate upon experience. For confidential consideration, forward your resume and cover letter noting Job Reference # to: ZymoGenetics, Inc., Attn: Human Resources, 1201 Eastlake Avenue East, Seattle, WA 98102. Fax: (206) 442-6658. E-mail: jobs@zgi.com. Equal Opportunity Employer.

ZYMO GENETICS

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

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, 1999. The Department is seeking a Biologist whose teaching responsibilities will include comparative anatomy, human anatomy and physiology, animal behavior, freshman biology courses, and courses in the candidate's area of interest. The successful candidate will be expected to direct student research. Required qualifications include earned Ph.D. in biological sciences, and ability to teach courses associated with this position. Teaching experience at the college level is preferred.

To apply send letter of application, curriculum vitae, and three letters of recommendation to: **Gannon University, Human Resources Department, 109 University Square, Erie, PA 16541-0001. FAX: 814-871-7514; e-mail: hrdept@gannon.edu.** This position will remain open until filled. E-mail inquiries regarding this position may be directed to: **Professor David J. Gustafson, Chairperson of the Biology Department, e-mail: gustafso002@gannon.edu.** For more information about Gannon visit our website: **www.gannon.edu.** *Gannon University is an Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON DEPARTMENT OF PATHOLOGY

Case Western Reserve University is seeking a Chair of the Department of Pathology. The Chair serves as the academic leader of the Case Western Reserve University Department of Pathology. The Department has a long-standing tradition of excellence in training and investigation and is currently ranked third in NIH funding nationally. The faculty have broad expertise in molecular biology and virology, cell biology, and immunology. The candidate must demonstrate academic leadership and possess a proven track record in basic research.

Interested candidates should submit their curriculum vitae no later than April 15, 1999, to: **Richard A. Walsh, M.D., Professor and Chair of Medicine, Search Committee Chair, University Hospitals, 11100 Euclid Avenue, Cleveland, OH 44106-5029.**

Case Western Reserve University is an Affirmative Action/Equal Opportunity Employer. Applications from qualified women and minorities are encouraged.

PROGRAM DIRECTOR/INSTRUCTOR

Pikeville College School of Osteopathic Medicine seeks a Program Director/Instructor in clinical laboratory sciences/medical technology. Applicant should be an accomplished and highly motivated educator to administer a new and growing 3 + 1 program. Applicants must be certified in medical technology by ASCP or NCA and have a graduate degree (Doctorate preferred). Requirements include demonstrated teaching/administrative ability; demonstrated knowledge of NAACLS-accreditation requirements; ability to work well with students and people in health care institutions; and clinical practice experience. A letter of application, curriculum vitae, and three letters of reference should be sent to: **David Leech, D.O., Pikeville College School of Osteopathic Medicine, 214 Sycamore Street, Pikeville, KY 41501. Telephone: 606-432-9617.**

SURFACE HYDROLOGIST POSITION

A tenure-track **ASSISTANT PROFESSOR** position is available, jointly sponsored by the Department of Plants, Soils, and Biometeorology and the Ecology Center at Utah State University. The appointed person will develop a research program in surface hydrology, and examine interactions between soil, biological, ecological, and atmospheric processes. Teaching will involve an undergraduate class in hydrology, and a graduate class in a chosen area of expertise. For full details please see the following website: **http://psb.usu.edu/employment/hydro.html.**

POSITIONS OPEN



SENIOR SEQUENCING MANAGER

The Department of Energy (DOE) Joint Genome Institute (JGI) in conjunction with the Life Sciences Division of the Lawrence Berkeley National Laboratory (LBNL) has an opening for a Senior Biologist with sequencing experience. The JGI represents the merger of the DOE Genome Centers at Los Alamos National Laboratory, Lawrence Berkeley National Laboratory, and Lawrence Livermore National Laboratory. Its dual biological goals are to develop large-scale genomic sequencing and functional genomics. To support these efforts, a 60,000-square foot Production Sequencing Facility (PSF) is being constructed in Walnut Creek, California, the first 30,000-square foot increment of which is now functioning.

You will perform duties regarding sequencing leadership, including overseeing and providing technical guidance for the completion of genomic clones from their draft/shotgun phase to their finished phase. Additionally, you will develop standards and metrics for the finishing process that considers the DOE's position in the genome community and available resources. This includes the definition of automation, new biochemical approaches, and software that facilitates the completion of significantly larger volumes of genome sequence than is possible today.

Requires a Ph.D. in biochemistry, molecular biology, a closely related discipline or equivalent experience, and an extensive background managing large-scale research and/or production programs. Must have demonstrated expertise in various sequencing, automation, and software applications applicable to high-throughput genomic sequencing, proven leadership experience, and superb interpersonal and verbal/written communication skills. Prefer a knowledge of ABI and Amersham DNA sequencers.

Please send curriculum vitae, cover letter, names, addresses, and telephone numbers of three references and Job# LSD10408/JSCI to: **Ernest Orlando, Lawrence Berkeley National Laboratory, Staffing Office, Job# LSD10408/JSCI, One Cyclotron Road, MS 938A, Berkeley, CA 94720. E-mail: employment@lbl.gov; FAX: 510-486-5870.** You may see the full position description and qualification requirements on our LBNL website: **http://www.lbl.gov/CJO.** *Berkeley Lab is an Equal Opportunity Employer committed to the development of a diverse work force.*

SENIOR RESEARCH ASSISTANT JOSLIN DIABETES CENTER

Primary responsibilities relate to maintenance and characterization of transgenic animal and cell culture models. Bachelor's degree in biology or closely related field and two to three years of laboratory research experience. Experience in basic molecular biology techniques and handling small animals. Forward résumé and cover letter to: **Joslin Diabetes Center, Human Resources, One Joslin Place, Boston, MA 02215. FAX: 617-732-2553.** *An Affirmative Action/Equal Opportunity Employer and Harvard Medical School Affiliate.*

RESEARCH ASSOCIATE(S) to investigate the mechanism of salivary gland disease in HIV and autoimmune disease. Candidates should have a minimum of a Master's degree in microbiology, molecular or cell biology with experience in tissue culture, RNase protection, PCR, DNA sequencing, and immunoassays. Fluency in Cameroonian Pidgin essential for one candidate. Salary \$20,000 to \$30,000.

Send curriculum vitae and three references to:

**C. McArthur, M.D., Ph.D.
University of Missouri-Kansas City
650 East 25th Street
Kansas City, MO 64134
E-mail: mcarthur@umkc.edu**

POSITIONS OPEN

Oral biology/Nebraska. The Department of Oral Biology of the University of Nebraska Medical Center (UNMC), College of Dentistry is expanding its research focus in oral cancer. A full-time tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR** is available July 1, 1999. We seek an individual with the ability to develop an externally funded research program in molecular biology of oral cancer to complement ongoing programs at UNMC. Teaching responsibilities will be to participate in teaching biochemistry to dental and graduate students. A Ph.D. or equivalent degree is required. Postdoctoral experience is preferred. Salary is commensurate with rank and experience. Review of applicants will continue until the position is filled. Send curriculum vitae, selected reprints, a statement of research plans, and the names, addresses, and telephone numbers of three references to: **Position #9-0038, Office of the Dean, University of Nebraska Medical Center, College of Dentistry, P.O. Box 830740, Lincoln, NE 68583-0740. UNMC is an Equal Opportunity/Affirmative Action Employer.**

BIOLOGIST

Scientific Data Analyst to help build and maintain GenBank, NIH's gene sequence database produced by the National Center for Biotechnology Information. Responsibilities include review and analysis of DNA sequence submissions using state-of-the-art computer systems. M.S. in biology or related field with strong emphasis in molecular biology highly desirable. Although this is not a laboratory position, extensive molecular biology laboratory experience is needed. Experience with computers and DNA sequence analysis software also a plus. Excellent verbal and written skills required. Please FAX or mail résumé with cover letter to:

**ComputerCraft Corporation
Attn: Molecular Biologist
6701 Democracy Boulevard
Suite 401
Bethesda, MD 20817
FAX: 301-530-0634**

RESEARCH ASSISTANT PROFESSORSHIP available now to study dynamic processes within single, living GnRH neurons. A Ph.D. and at least six years of postdoctoral experience are required. The specific objectives are to elucidate molecular mechanisms underlying pulsatile patterns of gene expression, stimulus-transcription coupling, and calcium coding of gene expression. Salary and benefits are commensurate with experience. Send curriculum vitae and contact information for three references to: **Dr. L. Stephen Frawley, Laboratory of Molecular Dynamics, Department of Cell Biology and Anatomy, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425-2204. FAX: 843-792-0664; e-mail: frawleys@musc.edu.** The application deadline is April 30, 1999. *The Medical University of South Carolina is an Equal Opportunity Employer and actively seeks application from all qualified persons, whatever their sex, race, religion, national origin, or disability. Women and minorities are encouraged to apply.*

RESEARCH CHEMIST/MICROBIOLOGIST. The U.S. Army Medical Research Institute of Chemical Defense is the lead laboratory in the Department of Defense for research on the development of antidotes against chemical warfare threats. The Institute currently has an opening for a Principal Investigator and team leader in the Pharmacology Division at Aberdeen Proving Ground, Maryland. *Only U.S. citizens may apply.* It is desirable that the candidate demonstrate postgraduate research experience involving the identification, cloning, and expression of wild type or site-directed mutated genes and experience working with proteins that are postulated to have a therapeutic effect *in vivo* against a xenobiotic compound. Job announcement can be found at website: **www.usajobs.opm.gov** or you can Telephone: **410-306-0080** to request an application package. Initial consideration will be given to those received by May 14, 1999.

GLOBAL OPPORTUNITIES

CDE CENTRE FOR DRUG EVALUATION

Ministry of Health
Singapore

The Centre for Drug Evaluation (CDE), Ministry of Health, Singapore was set up in December 1998 to review investigational and new drug applications (INDs/NDAs). CDE's mission is to conduct the scientific evaluation of new drugs for the purpose of drug registration and marketing authorisation in a timely, responsive and effective manner in line with international practice; as well as ensure the quality, safety and efficacy of new drugs.

CDE invites applications from experienced physicians and scientists interested in the challenge of participating in the development and approval process for new drug products.

REGULATORY MEDICAL REVIEWERS

Duties include evaluation of data involving animal testing and human clinical trials of new drugs to determine their safety and effectiveness in preventing/treating human illnesses, ascertaining the accuracy of labeling claims made by pharmaceutical manufacturers, writing reviews of application data and evaluating marketed events on approved drugs.

You should have a Doctor of Medicine from an accredited medical school, coupled with good analytical and communication skills. Those with drug regulatory experience will have an added advantage.

REGULATORY REVIEW SCIENTISTS

Duties include reviewing and evaluating studies submitted by manufacturers in support of INDs and NDAs; evaluating adequacy of methods; evaluating the quality and adequacy of manufacturers' tests to determine the validity of drug safety and efficacy claims; writing reviews of application data; and evaluating marketed events on approved drugs.

You should have a relevant Degree from an accredited university with at least 2 years' post-graduation experience in a Scientific discipline such as Chemistry, Pharmacology, Toxicology, Pharmacokinetics or Microbiology, coupled with good analytical and communication skills. A Doctorate Degree with drug regulatory experience will be an added advantage.

The successful candidates can expect a competitive salary which will commensurate with qualifications and experience, in addition to an attractive benefits package such as vacation leave, yearly bonus as well as medical and insurance coverage.

Applications stating full personal particulars, educational qualifications, career history, present and expected salary with at least two professional references, a non-returnable photograph and contact number should be addressed to:

Director, Centre for Drug Evaluation
Ministry of Health, College of Medicine Building, 16 College Road, Singapore 169854
E-mail: NG_Tju_Lik@MOH.GOV.SG Fax: (65) 3259078



Vice-Chair and Director

Division of Anatomic Pathology
School of Medicine and Health System

The Department of Pathology and Laboratory Medicine at the University of Pennsylvania is seeking a Vice-Chair for Anatomic Pathology who will function as overall director of that division. This is a tenured position at the level of full professor. The candidate must possess an international reputation for academic achievements in Anatomic Pathology and the ability to lead a large and diverse group of faculty at the Hospital of the University of Pennsylvania and affiliated hospitals. The Vice-Chair will be expected to promote strong interactions with the Laboratory Medicine and Experimental Pathology Divisions of the Department. The candidate will have the opportunity to advance new Anatomic Pathology initiatives in areas such as molecular diagnostics, telepathology, and informatics in an effort to advance the service, teaching and research missions of the Division.

Interested individuals should mail a copy of their curriculum vitae and names of three references no later than June 30, 1999 to: **Nicholas K. Gontas, M.D., Chair, Search Committee, Department of Pathology and Laboratory Medicine, University of Pennsylvania, 418 Johnson Pavilion, 3610 Hamilton Walk, Philadelphia, PA 19104-6079.**

The University of Pennsylvania is an equal opportunity, affirmative action employer. Women and minorities are encouraged to apply.

EUROPEAN OPPORTUNITIES



Pharma

Computational Chemist/Drug Discovery

Who we are

The Molecular Design Group of Roche's pharmaceuticals division in Basel (Switzerland), supports drug discovery projects in major therapeutic areas using advanced modeling and computational tools. Further development and especially the application of such tools is also an important activity as this is the only group holding this responsibility.

The position

Within our Molecular Design Group you will work on chemical lead discovery and optimization in close collaboration with medicinal chemists, molecular biologists and biostructural experts (X-ray, Bio-NMR).

Who you are

You have a strong background in chemical and biostructural research and extensive experience in the application of molecular modeling tools. You have a Ph.D. in chemistry or biochemistry and are fluent in English.

Who to contact

If the above profile fits your background and experience and you are interested in this challenging position, then please send your application with full supporting documentation to: F. Hoffmann-La Roche Ltd, Mr Werner Aschwanden, PSPB-1, 52/205, P.O. Box, CH-4070 Basel, quoting reference: As1564. For further information, please contact Dr Frank Grams, phone: 0041-61-688 72 37 or Email: Frank.Grams@roche.com.

POSITIONS OPEN

DIRECTOR OF RESEARCH SHRINERS HOSPITALS FOR CHILDREN CINCINNATI BURNS HOSPITAL

The Shriners Hospital for Children in Cincinnati, Ohio is seeking an outstanding scientific leader to direct its research program. The Shriners Hospital for Children in Cincinnati is a modern (built in 1992) research facility that is affiliated with the University of Cincinnati College of Medicine. The position provides administrative and scientific leadership for a large research program related to burn injury, sepsis, and wound healing.

The successful candidate will have a distinguished record of research productivity and an externally funded research program that employs the use of modern biochemical, molecular, and/or cell biological approaches. The candidate must have a Doctoral degree (Ph.D., M.D., M.D.-Ph.D.) and meet requirements for a tenured appointment at the academic rank of Professor or Associate Professor (tenure track) in the Departments of Surgery and of Molecular and Cellular Physiology in the University of Cincinnati College of Medicine.

The Director is responsible for the administration and leadership of advances in the overall research program. He/she must coordinate a large multidisciplinary research program comprising scientists and support personnel, establish a strong collaborative base, and develop new scientific programs and initiatives. Excellent organizational, interpersonal, and communication skills are required.

A competitive salary, benefits, start-up package, and substantial laboratory space in a modern research facility are provided. Review of applications will begin immediately and will continue until the position is filled.

Please mail résumés to: Josef E. Fischer, M.D., Chairman, Research Director Search Committee, Department of Surgery, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267-0558.

The National Eye Institute, National Institutes of Health, has **POSTDOCTORAL POSITIONS** available for the study of cataract. Candidates should have background in molecular biology/biochemistry and must be U.S. citizens or permanent residents with less than five years of postdoctoral experience. Starting salary ranges from \$25,000 to \$38,000 per year depending upon experience. Paid health benefits and a generous travel allowance are included. One position is for the study of cataracts and gene expression using molecular biology approaches; the second will focus on signal transduction pathways in the normal and cataractous lens. For the first position send curriculum vitae, bibliography, and names of three references to: Dr. Deborah Carper, Laboratory of Mechanisms of Ocular Diseases, NIH, NEI, 6 Center Drive, MSC-2735, Bethesda, MD 20892-2735. Telephone: 301-496-2144; FAX: 301-496-1759; e-mail: debbie@helix.nih.gov. For the second position direct the same information to: Dr. Sam Zigler, Laboratory of Mechanisms of Ocular Diseases, NIH, NEI, 6 Center Drive, MSC-2735, Bethesda, MD 20892-2735. Telephone: 301-496-6669; FAX: 301-496-1759; e-mail: szigler@intra.nei.nih.gov.

NIH is an Equal Opportunity Employer.

Anatomy TEACHING POSITION. A nine-month replacement position is available (beginning July 1, 1999) to teach human gross anatomy, embryology, and, to a lesser extent, histology to first-year medical students. Continuation in a long-term position may be possible. Experience in cadaver dissection is required. Submit letter of application, curriculum vitae (including statements of teaching experience and philosophy), three letters of reference to: Dr. Peter MacLeish, Professor and Interim Chairman, Department of Anatomy, Morehouse School of Medicine, 720 Westview Drive S.W., Atlanta, GA 30310-1495; e-mail: macleip@msm.edu. The Morehouse School of Medicine is an Equal Opportunity Employer.

POSITIONS OPEN



DIRECTOR GENOMICS CORE FACILITY

A position at the level of Research Scientist is available in the College of Medicine at the University of Cincinnati to direct a Genomics Core Facility. The primary responsibility include the operation of a custom DNA array center. The successful candidate will manage a small technical staff and assist Investigators to design and construct custom DNA arrays. Applicants for this position should hold a Ph.D. degree with experience in molecular biology, genomics, or bioinformatics.

Applications should include a curriculum vitae, description of research experience, and the names and addresses of three references. Send applications to:

David. E. Millhorn
Professor and Chair
Department of Molecular
and Cellular Physiology
University of Cincinnati
P.O. Box 670576
Cincinnati, OH 45267-0576

ASSOCIATE DIRECTOR OF RESEARCH GERIATRIC RESEARCH, EDUCATION, AND CLINICAL CENTER Veterans Affairs Medical Center Minneapolis, Minnesota

Applications are invited for a Senior Staff position in the Geriatric Research, Education, and Clinical Center (GRECC) of the Department of Veterans Affairs Medical Center in Minneapolis, Minnesota. This individual is expected to take a leadership role in research related to the aging nervous system. The successful candidate will be one who demonstrates appropriate leadership skills, including the ability to maintain effective interactions over a range of basic science and clinical disciplines related to brain and aging. Candidates should have a record of outstanding research accomplishments as evidenced by national and international recognition, appropriate funding record, and proven ability to train graduate and postdoctoral researchers. The position includes a permanent staff appointment in the federal government and an academic appointment in an appropriate Department in the University of Minnesota at a level commensurate with the credentials of the successful candidate. In addition to research, participation in teaching and clinical activities are negotiable.

Candidates holding the M.D. and/or Ph.D. degree are invited to apply by sending a letter of interest, curriculum vitae, and three names of persons for references prior to June 30, 1999: Maurice W. Dysken, M.D., Director, Geriatric Research, Education, and Clinical Center Program, VA Medical Center (11G), One Veterans Drive, Minneapolis, MN 55417. The Minneapolis Veterans Affairs Medical Center is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION. A Postdoctoral position is available to study the structural basis of targeted proteolysis in cell cycle regulation. Experience in X-ray crystallography and protein expression/purification preferred. Please send curriculum vitae and names of three references to: Dr. Ravi Basavappa, Department of Biochemistry and Biophysics, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, NY 14642. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL FELLOWS in population biology. The Center for Population Biology (CPB) at University of California, Davis invites applications for two 1999 CPB Postdoctoral Fellowships in population biology, broadly defined to include ecology, systematics, population genetics, and evolution. The positions are for one year, with the possibility of extending to a second year, and can begin as early as October 1999. The annual salary range is \$23,000 to \$25,000, depending on qualifications, plus up to \$2,500 per year for research support. The Fellows will be fully participating members in the Center for Population Biology, and are expected to have independent research programs that bridge the interests of two or more CPB laboratory groups. For more information about UCD programs in population biology, see our website: <http://www-cve.ucdavis.edu/popbio.htm>. Interested candidates should submit curriculum vitae, three letters of reference, a short one- to two-page description of research accomplishments, and a short (one- to two-page) description of proposed research to: CPB Fellow Search Committee, Center for Population Biology, University of California, One Shields Avenue, Davis, CA 95616-8755. Evaluation of applications will begin on June 15, 1999. The University of California is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect for differences.

POSTDOCTORAL FELLOWSHIP VASCULAR CELL AND MOLECULAR BIOLOGY Albert Einstein College of Medicine

The laboratory of J. Anthony Ware is seeking Ph.D.'s and/or M.D.'s to join our research program in basic mechanisms of cardiovascular disease. The laboratory's goal is to identify and characterize molecular triggers of endothelial cell growth, migration, and adhesion that lead to angiogenesis, including a newly identified modulator of integrin function, the PKC family, and the endothelial thromboxane A₂ receptor. Molecular skills and/or experience with vascular cell biology desirable. Send curriculum vitae and names of three references to: J. Anthony Ware, M.D., Sidney L. and Miriam K. Olson Professor of Cardiology, Professor, Molecular Pharmacology, Chief, Cardiovascular Division, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. FAX: 718-430-8989; e-mail: jaware@aecom.yu.edu. Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available to study the physiological role of interactions between AP-2 and its co-factors (MCB 19:899-908, 1999; NAR 27:866-874, 1999). Projects include analysis of the role of AP-2 and cofactors on differentiation and tumorigenesis. Ph.D. and experience in molecular/cellular biology, site-directed mutagenesis, transcription assays *in vitro* and cells, protein-protein interactions, and/or transgenic mice. Send curriculum vitae and three letters of reference to: Dr. Michael A. Tainsky, Professor and Director, Program in Cancer Genetics, Karmanos Cancer Institute, Wayne State University, 110 East Warren, Detroit, MI 48201. Wayne State University School of Medicine, the country's largest single campus medical school, is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW University of Southern California, Los Angeles

To study organogenesis using epithelial morphogenesis as a model, focusing on the regulation of organ size, axial determination, pattern formation. Mail or FAX curriculum vitae, goals, and three references to:

Dr. Cheng-Ming Chuong
Department of Pathology
University of Southern California
Los Angeles, CA 90033
FAX: 323/442-3049
Website: www-hsc.edu/~cmchuong



EXCITING CAREER OPPORTUNITIES IN **BIOMEDICAL RESEARCH ADMINISTRATION**



PROGRAM MANAGER FOR THE BREAST CANCER RESEARCH PROGRAM

The Office of Congressionally Directed Medical Research Programs (CDMRP) in Frederick, Maryland is seeking to hire a Program Manager for the Breast Cancer Research Program (BCRP). The position entails working with expert consultants in the field of breast cancer to develop and manage each year's program, from the evolution of an investment strategy through the funding of awards. Responsibilities include all aspects of program management, applying biomedical and behavioral science knowledge to the review and analysis of research proposals solicited and reviewed by the CDMRP.

Job Description: Between FY 92 and FY 98, the United States Army Medical Research and Materiel Command (USAMRMC) has administered targeted appropriations totaling over \$1.1B for research on breast, prostate, and ovarian cancer, neurofibromatosis, defense women's health, and osteoporosis. The BCRP Program Manager will operate in this challenging, fast-paced environment, using both independent and collaborative work skills to address a wide range of rapidly changing and diverse issues. The Program Manager will be directly supervised by the CDMRP Deputy Director for Research Programs, and will work with: administrative and scientific CDMRP staff and contractor personnel; contracting officers, regulatory compliance information management, and budget personnel; and other biomedical science funding agencies. Occasional travel and some overtime will be required. All CDMRP programs address community outreach and involve consumer advocates in the review process. USAMRMC is an Equal Opportunity Employer. Position is a permanent GS13 or 2-4 year University Sabbatical.

Required Skills: Ph.D. or equivalent in a biomedical science field with laboratory and administrative experience, particularly in the field of breast cancer. Significant experience in program management and administration of biomedical research. Excellent writing and verbal communication skills, as demonstrated by ability to synthesize information in written and oral formats. Established track record of successful working relationships with scientific and governmental agencies.

Interested Candidates: FAX C.V. to (301) 619-7796. Please indicate the position title on the cover sheet.

For more information about the CDMRP, visit: <http://cdmrp.army.mil>

POST-DOCTORAL FELLOWSHIPS IN CELL CYCLE REGULATION

Laboratory of Biological Chemistry, National Institute on Aging

National Institutes of Health

Post-doctoral positions are available immediately in the Laboratory of Biological Chemistry, at the National Institute on Aging, for highly motivated individuals interested in joining an expanding program devoted to the study of Cell Cycle Regulation at the molecular and cellular level in mammalian cells. Specific project areas for which candidates are sought include:

- Signal-transduction mechanisms regulating cell cycle progression
- Mechanisms controlling the expression and/or function of cell cycle regulatory genes, particularly at post-transcriptional levels
- Functional analysis of the VHL tumor suppressor gene

Candidates must have a Ph.D./M.D. degree, fewer than 5 years of post-doctoral experience, a strong background in molecular and cell biology, and a record of productivity. Please send CV and names of three references with contact information. Position and salary commensurate with qualifications and experience.

Myriam Gorospe
Laboratory of Biological Chemistry, Box 12
Gerontology Research Center, 5600 Nathan Shock Dr., NIA
National Institutes of Health, Baltimore, MD 21224
myriam-gorospe@nih.gov tel:410-558-8443 / fax:410-558-8386

NIH is an Equal Opportunity Employer

EUROPEAN OPPORTUNITIES



**At the Knochenmarkspenderzentrale at the
Heinrich-Heine-Universität Düsseldorf a**

Postdoctoral Position (Ph.D. or M.D.)

is available.

Candidates should have extensive research experience in the area of Gene Regulation of Cell Differentiation and/or Immunogenetics. Applicants are expected to participate in departmental teaching.

This position is initially open for two years and can be extended.

Salary will be according to the German BAT Ib/IIa.

The university strongly encourages applications from female and handicapped scientists.

Qualified candidates should send their curriculum vitae including a letter of recommendation and their bibliography within two weeks to

**Medizinische Einrichtungen der Heinrich-Heine-Universität
Düsseldorf, D 01.2.1 - Kennziffer: 68E/99, Postfach 10 10 07,
D-40001 Düsseldorf**

POSITIONS OPEN

METABOLISM BRANCH NATIONAL CANCER INSTITUTE

The Metabolism Branch, National Cancer Institute is offering a **POSTDOCTORAL RESEARCH TRAINING FELLOWSHIP** position in the laboratory of **Dr. Thomas Waldmann**, for an individual who would investigate new therapeutic approaches directed toward the IL-2/IL-15 and HER2/neu receptors and their signaling pathways. The approach, focusing on the IL-2 receptor, exploits the observation that the high affinity IL-2R is not expressed by normal cells, but is expressed by select leukemic cells as well as T-cells involved in allograft rejection and autoimmunity. A murine model of IL-2R expressing Adult-T-Cell Leukemia (ATL) was established by introducing cells from an ATL patient into SCID-NOD mice. Following serial transfer of these cells, the animals developed grossly enlarged spleens and leukemia of ATL cells that retained the phenotype and HTLV-I integration pattern of the patient's ATL leukemia. The candidate would be involved in the development of novel therapeutic agents and in their evaluation in the mouse ATL model as well as in a model of HER/2neu expressing breast cancer. Agents showing promise in these murine models may move forward into clinical trials. Humanized antireceptor antibodies armed with alpha and beta emitting radionuclides or with toxins, as well as JAK-3 kinase-directed inhibitors, are some of the agents under investigation. Applicants should have completed an M.D. or Ph.D. and be highly motivated individuals interested in joining a progressive Clinical Research Program. Interested candidates should submit a statement of interest, curriculum vitae, bibliography, and list of three references to: **Ms. Jean Decker, Building 10, Room 4N115, NIH, Bethesda, MD 20892-1374. E-mail: jrmdeck@helix.nih.gov. NIH is an Equal Opportunity Employer.**

VERTEBRATE TELOMERE PROTEINS

POSTDOCTORAL POSITIONS are available to study how telomere proteins regulate telomere length and prevent chromosome ends from triggering senescence and cell-cycle check points. One project is to explore the function of vertebrate telomere proteins by making gene knockouts and analyzing the phenotype of the null cell lines and cell lines expressing mutant versions of the telomere protein. A second project is to identify new telomere proteins and components of the alternative pathway (i.e., non-telomerase-based) for telomere maintenance by using a retroviral expression system to complement knockout phenotypes. Experience in molecular biology is essential. Send curriculum vitae, description of research experience, and three reference letters to: **Dr. Carolyn Price, Department of Biochemistry, N146 Beadle, University of Nebraska, Lincoln, NE 68588 USA. FAX: 402-472-7842. E-mail: cmp@biocomp.unl.edu. See website: <http://www.chem.unl.edu/price/price.html> for more information.**

POSTDOCTORAL POSITION available immediately to study the enzymatic mechanisms of DNA recombinases and helicases. The research will include rapid kinetic methodologies and the use of protein engineering to construct mutant enzymes with altered catalytic properties. Experience in mechanistic enzymology, nucleic acid biochemistry, or protein chemistry is desirable. Send curriculum vitae and names of three references to: **Dr. F. R. Bryant, Department of Biochemistry, Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205. JHU is an Equal Opportunity/Affirmative Action Employer.**

Mayo Clinic POSTDOCTORAL POSITION is available in an established laboratory to study molecular properties of ion channels in smooth muscle. Candidates must be a U.S. citizen or permanent resident and have an M.D. or Ph.D. degree. Send curriculum vitae and names of three references to: **Gianrico Farrugia, M.D., Division of Gastroenterology and Hepatology, Mayo Clinic, 200 First Street S.W., Rochester, MN 55905. Mayo Foundation is an Affirmative Action/Equal Opportunity Employer and Educator.**

POSITIONS OPEN

POSTDOCTORAL AND SENIOR RESEARCH ASSOCIATE POSITIONS Cell Biology Research Laboratories University of Massachusetts Medical School

Positions in molecular and cell biology to investigate gene regulatory mechanisms controlling the cell cycle and skeletal and hematopoietic cell differentiation in normal and tumor cells. *In vivo*, *in situ*, and *in vitro* approaches are being taken to address transcriptional control, chromatin remodeling, and intracellular trafficking of regulatory factors. Preference will be given to candidates with experience in molecular biology, *in situ* approaches, nucleic acid biochemistry, or chromatin. Opportunity for career advancement. Send résumé and three reference letters to: **Dr. Gary Stein, University of Massachusetts Medical School, Department of Cell Biology, 55 Lake Avenue North, Worcester, MA 01655-0106. FAX: 508-865-6800. Equal Opportunity Employer. Must be a U.S. citizen/green card holder.**

POSTDOCTORAL POSITION available July 1, 1999, to focus on the immunology of adhesion molecules through regulated and tissue-specific knockout mice. Prior experience with mice, cellular immunology, autoimmunity models, and/or molecular biology is desirable but not essential. Program in molecular immunology within modern, state-of-the-art, multidisciplinary research environment in the heart of Augusta. Send, FAX, or e-mail curriculum vitae with names/addresses of three references and a description of research accomplishments to: **Pandelakis A. Koni, Ph.D., 1120 15th Street, Institute of Molecular Medicine and Genetics, Medical College of Georgia, Room CA2007, Augusta, GA 30912. FAX: 706-721-8733; e-mail: lak@immag.mcg.edu. MCG is an Equal Opportunity Employer. Women, minorities, and the disabled are encouraged to apply.**

POSTDOCTORAL FELLOW

Postdoctoral Fellow position is available at Harvard Medical School/Brigham and Women's Hospital to study the regulation of integrin signaling by caveolin and lipid-anchored membrane receptors. Experience in molecular biology and mouse models preferred. Send curriculum vitae to: **Dr. Harold Chapman, Pulmonary and Critical Care, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. FAX: 617-732-7421. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP in gene therapy for development of bone tissue-specific promoters. Experience with gene promoter regulation, footprint analysis, and electrophoretic mobility shift assay desirable. Salary is commensurate with past productivity. Opportunity exists for eventual promotion to Research Assistant Professor. Send cover letter, curriculum vitae, and names of three references to: **Dr. D. Strong, Loma Linda University, P.O. Box 7210, Loma Linda, CA 92354. LLU is an Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS available immediately in three areas. (1) DNA methylation and cancer. (2) NSAIDs, gene expression, and cancer. (3) Differential expression and comparative genomics in *Salmonella*. Please send curriculum vitae and the e-mail addresses of three references to: **Michael McClelland, Sidney Kimmel Cancer Center, 10835 Altman Row, San Diego, CA 92121. FAX: 619-550-3998; e-mail: mmccllelland@skcc.org.**

POSTDOCTORAL POSITIONS available for studies in prostate cancer and benign disease. Areas of focus include p53, vitamin D, and insulin-like growth factor. Candidate should have a strong background in cellular and molecular biology. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Donna Peehl, Department of Urology, Stanford Medical Center, Stanford, CA 94305-5118.**

POSITIONS OPEN

PH.D. POSTDOCTORAL POSITION FRED HUTCHINSON CANCER RESEARCH CENTER

A Postdoctoral position is available in the Transplantation Biology Program at the Fred Hutchinson Cancer Research Center to study the canine major histocompatibility complex. Current projects include the study of the expression of canine MHC class I molecules through the production of monoclonal antibodies and mapping the canine MHC using multiple BAC clones.

The laboratory is dedicated to using the canine model to study the hematopoietic stem cell transplantation. This position provides an opportunity to interact with an internationally known research group that has been performing work in transplantation biology for over 25 years. Experience in all aspects of monoclonal antibody production and immunohistochemistry is required; experience in molecular biology (pulsed-field gel electrophoresis, PCR, ribonuclease protection assay) is preferred. The position will last for two years with an option for extension an additional third year.

To apply please send a FAX or a curriculum vitae, names of three references, and a summary of experience to:

**Transplantation Biology Search Committee
Fred Hutchinson Cancer Research Center
Program in Transplantation Biology
1100 Fairview Avenue North, D1-100
P.O. Box 19024
Seattle, WA 98109-1024
FAX: 206-667-6124**

Applications will be accepted until June 30, 1999. Fred Hutchinson Cancer Research Center is an Equal Opportunity Employer committed to work force diversity.

POSTDOCTORAL FELLOWSHIP

A Postdoctoral position is available immediately to study signaling mechanisms involving enzymes of inositolide metabolism using *Drosophila* as a model system. Applicants must have a Ph.D. and are expected to be highly motivated. Experience in *Drosophila* genetics and molecular biology preferred, but not essential.

The position is part of the Division of Basic Sciences of the National Cancer Institute and is located at the Frederick Cancer Research and Development Center in Frederick, Maryland. Salary range for this position is \$29,000 to \$36,200.

If interested, please send your curriculum vitae and names of three references to: **Jairaj Acharya, M.B., B.S., Ph.D., Building 538, Room 140D, P.O. Box B, NCI-FCRDC, Frederick, MD 21702. Your curriculum vitae and names of references also may be by FAX: 301-846-6146; e-mail: acharya@mail.ncifcrf.gov.**

The National Institutes of Health is an Equal Opportunity Employer and encourages all qualified women and minorities to apply. Selection for this position will be based solely on merit, with no discrimination for nonmerit reasons such as race, marital status, physical or mental disability, age, sexual orientation, or membership or nonmembership in an employee organization.

POSTDOCTORAL POSITION available to study antigenic variation in influenza virus and the function of neuraminidase. Candidates should have experience in molecular biology including eukaryotic expression systems, virology, and/or immunology. Send curriculum vitae and names of three references to: **Dr. Gillian Air, Department of Biochemistry and Molecular Biology, BMSB 840, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190. E-mail: gillian-air@ouhsc.edu.**

POSTDOCTORAL POSITION available immediately to study structure-function relationships, protein-protein interactions, and regulation of endothelial nitric oxide synthase. Background of the applicant is less important than the willingness and aptitude to learn. Send curriculum vitae and the names of three references to: **Richard C. Venema, Ph.D., Vascular Biology Center, Medical College of Georgia, Augusta, GA 30912. E-mail: rvenema@mail.mcg.edu.**

The Queen's University of Belfast



Allen J McClay Chairs in Biological and Physical/Theoretical Chemistry (Ref: 99/Q033C)

School of Chemistry

The above posts represent the second stage of the University's plans for a major enhancement of the research profile of the School of Chemistry. These plans include the appointment of eight further academic staff, including four professors, over the next twelve months, bringing the academic staff number up to 26. This venture is jointly supported by Queen's University and by the McClay Trust.

The new Chairs are funded by a major endowment from the McClay Trust and carry substantial support packages, including the provision of appropriate refurbished research laboratory space. Applicants must have an international research reputation, with significant published papers and research grants, and must have the ability to develop significant research groups in appropriate areas of Chemistry and to provide leadership in research and teaching. A 2:1 honours degree and a PhD in Chemistry or a related subject are also essential, as is experience of teaching at undergraduate level. Some experience of administration in a University Chemistry department is desirable.

The School currently offers both BSc and MSci degrees in Chemistry, and a taught MSc in Environmental Chemistry and has approximately 80 PhD students. The School is very well equipped with major items of research equipment (NMR, MS, CD, X-ray, Laser facilities, etc) - a new NMR centre was opened in 1997. Many laboratories have recently been refurbished and refurbishment of remaining areas is currently underway.

Salary will be negotiable within the professorial range.

Informal enquiries of an academic nature may be directed to the Head of School, Dr JF Malone, telephone (01232) 335418, FAX (01232) 382117, email: j.malone@qub.ac.uk The School's website may be accessed at <http://www.ch.qub.ac.uk/>

Closing date: 5.00 pm, Friday 28 May 1999.

Further particulars quoting reference number 99/Q033C, are available from Personnel Office, The Queen's University of Belfast, Northern Ireland, BT7 1NN. Tel: (01232) 273044 or 273854 (answering machine). Fax (01232) 324944 or email: personnel@qub.ac.uk

Committed to an Equal Opportunities policy and selection on merit, the University welcomes applications from all sections of the community, and from women for academic posts.



UNIVERSITY OF CAMBRIDGE

The McDonald Institute
for
Archaeological Research



Research Fellowship in Genetics

Applications are invited for a Post-Doctoral Research Fellowship in Population Genetics tenable for three years collaborating on projects directed by Professor Colin Renfrew. The primary duty of the research fellow will be to undertake research on the use of DNA markers in human population genetics and in the reconstruction of population histories with particular emphasis on the Mediterranean. The person appointed will be expected to have research experience in human genetics and/or in the techniques of handling data appropriate to genetic studies, especially phylogenetic methods, principal components analysis, and linkage analyses.

Salary on the age-related scale £15,735 to £23,651. Applications with curriculum vitae and the names of two referees should arrive by 15 May 1999. Interviews will be held mid-June. For enquiries and applications write to the Deputy Director, McDonald Institute for Archaeological Research, Downing Street, Cambridge CB2 3ER, England, UK. (fax: +44 (0)1223 333536; tel: 333538; e-mail: at270@cus.cam.ac.uk).



THE UNIVERSITY
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gender or
disability.



Department of Chemistry

THREE ACADEMIC POSTS IN THE CHEMISTRY OF THE RADIOACTIVE ELEMENTS

BNFL and the University of Manchester are collaborating together to establish a multi-million pound Centre of Excellence in Radiochemistry based in newly refurbished laboratories at the University of Manchester and at BNFL's new R&D facilities in Cumbria and Lancashire. The Centre's long-term purpose is to secure the future of radiochemistry teaching and research in the UK. Between six and eight PhD studentships will be available to the Centre each year and funding for a number of research fellowships is also available.

We now seek

- a Director of the Centre, who should have experience in the co-ordination chemistry of the radioactive elements (a Chair in Radiochemistry may be available for a suitable candidate). Salary c. £35,000 p.a. Ref: 276/99.
- and
- two Lecturers (A/B) with appropriate backgrounds (eg. actinide co-ordination chemistry; fission product chemistry; physical inorganic chemistry; equilibrium and kinetic modelling; radiocolloid chemistry; inorganic spectroscopy; small molecule crystallography; electrochemistry). Experience in working with radioactive material would be an advantage but is not essential. Salary in the range £16,655 - £29,048 p.a. Ref: 277/99.

All posts are available from 1 June 1999.

Informal enquiries may be made to Dr F R Livens (francis.livens@man.ac.uk) or Professor C Price, Head of Department (colin.price@man.ac.uk)

Application forms and further particulars can be obtained from the Office of the Director of Personnel, The University of Manchester, Oxford Road, Manchester M13 9PL. Tel: 0161 275 2028; Fax: 0161 275 2221/2471; Minicom (for the hearing impaired): 0161 275 7889; E-mail: personnel@man.ac.uk Web Site: <http://www.man.ac.uk>

Closing date: 16 May 1999. Please quote relevant reference number.

POSITIONS OPEN

POSTDOCTORAL POSITIONS EARLY EMBRYONIC PATTERNING AND ORGANOGENESIS Mount Sinai School of Medicine

Mount Sinai School of Medicine is a leader in medical research and education. Two NIH-funded Postdoctoral positions available to study molecules involved in early embryonic patterning and organogenesis (largely hematopoiesis and vasculogenesis) in the mouse embryo. The work will focus on inductive interactions and signaling pathways involved in the formation of blood and vascular tissue and will make use of a novel explant culture system developed in this laboratory (see: *Develop.* 125:5009, 1998) as well as transgenic and knockout mouse strategies.

A strong background in molecular or developmental biology is required. Preference will be given to applicants who seek their first Postdoctoral position. The laboratory is housed in a new research building with outstanding core facilities and state-of-the-art equipment. Mount Sinai School of Medicine, located on Manhattan's Upper East Side adjacent to Central Park, provides a highly interactive scientific environment. A number of other laboratories have a common interest in developmental biology.

For consideration, please send curriculum vitae, summary of research accomplishments, and the names of three references to: **Margaret H. Baron, M.D., Ph.D., Box 1079, Departments of Medicine, Biochemistry, and Molecular Biology, Gene Therapy, and Cancer Center, Mount Sinai School of Medicine, 1425 Madison Avenue, 11-70B, New York, NY 10029-6574. FAX: 212-849-2442; e-mail: mhbaron@msvax.mssm.edu.** We are an Equal Opportunity Employer fostering diversity in the workplace.

POSTDOCTORAL POSITION MOLECULAR AND CELLULAR BIOLOGY

Postdoctoral positions at The Research Institute for Children in New Orleans, Louisiana are available immediately for highly motivated scientists with Ph.D. degree. This appointment will be in the Department of Pediatrics at the Louisiana State University Medical Center. Ongoing studies involve in elucidating the molecular mechanisms of the islet cell growth and differentiation, autoimmunity of type 1 diabetes, and other autoimmune diseases. The applicants should have a strong background in molecular and cellular biology, handling small animals, and basic tissue culture techniques. Experience with islet cell pathophysiology is a plus. Please send a résumé with list of references as soon as possible to: **Dr. Michael S. Lan, The Research Institute for Children, 520 Elmwood Park Boulevard, Suite 160, Harahan, LA 70123. FAX: 504-733-4036; e-mail: resinstchl@aol.com.** LSUMC is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS

Two NIH-funded Postdoctoral positions available immediately to study the molecular basis of programmed alternative decoding of the genetic code in yeast as it relates to the mechanism of translational accuracy. Send a curriculum vitae and names of three references to: **Dr. Philip Farabaugh, Department of Biological Sciences, University of Maryland Baltimore County, Baltimore, MD 21250. E-mail: farabaugh@umbc.edu.** UMBC is an Affirmative Action/Equal Opportunity Employer.

Two POSTDOCTORAL POSITIONS available to study molecular mechanisms of central nervous system disorders, in particular epilepsy and anxiety, in transgenic animal models (website: <http://www-users.med.cornell.edu/~mtoth/main.html>). Send curriculum vitae and the names of three references to: **Dr. Miklos Toth, Department of Pharmacology, Weill Medical College of Cornell University (formerly Cornell University Medical College), 1300 York Avenue, New York, NY 10021. Website: <http://www.med.cornell.edu>.** An Equal Opportunity Employer/Affirmative Action/Minorities/Females/Veterans.

POSITIONS OPEN

INTERESTED IN CLINICAL OR POSTDOCTORAL RESEARCH TRAINING?

The National Institutes of Health has both! For more information, visit our website which lists an array of clinical and postdoctoral opportunities, including tenure-track positions.

<http://www.training.nih.gov>
The NIH is an Equal Opportunity Employer.

POSTDOCTORAL FELLOW. Mass spectrometry. A Postdoctoral Fellow with graduate or postdoctoral-level experience in mass spectrometry to perform research studies of essential fatty acid biochemistry with a focus upon neural functions of docosahexaenoate. Fellow will be involved in studies of stable isotope-labeled fatty acid elongation/desaturation and peroxidation *in vivo* in humans and research animals using NCI/GC/MS. Candidates must have a M.D. or Ph.D. in chemistry, biochemistry, nutrition, or related disciplines and have less than seven years of postdoctoral experience. Previous training and experience in mass spectrometry is mandatory. Salary range is \$31,000 to \$69,000 depending upon qualifications and experience. Applicants should submit a curriculum vitae, bibliography, three references, and a statement of research interests to: **Chief, Laboratory of Membrane Biochemistry and Biophysics/National Institute on Alcohol Abuse and Alcoholism, 12420 Parklawn Drive, Room 158, Rockville, MD 20852. NIH is an Equal Opportunity Employer.** Applications from women, minorities, and persons with disability are strongly encouraged. The DIBR/NIAAA is a smoke-free environment.

DEVELOPMENTAL BIOLOGY YALE UNIVERSITY

POSTDOCTORAL POSITION starting July 1, 1999, to study epithelial-mesenchymal interactions during mammalian development. Current studies are using transgenic, knockout, and conditional knockout mice to investigate the role of parathyroid hormone-related protein in mesenchymal cell fate decisions and the mechanisms of androgen action during early mammary development. Candidates should be experienced in molecular biology and have a strong interest in development. Send curriculum vitae and names of three references to: **John Wysolmerski, Section of Endocrinology, Department of Medicine, Yale School of Medicine, 333 Cedar Street, New Haven, CT 06520-8020. FAX: 203-785-6015; e-mail: john.wysolmerski@yale.edu.** Yale University is an Equal Opportunity Employer.

Three POSTDOCTORAL POSITIONS are available immediately at the Center for Neurovirology and Neurodegenerative Disorders, University of Nebraska Medical Center. Positions include (1) electrophysiology (2) cell biology/immunology (3) biochemistry. Familiarity with primary neuronal cell culture and knowledge of immunology and virology are beneficial but not necessary. Interested candidates should submit a letter of interest and curriculum vitae to the attention of: **Dr. Howard E. Gendelman, University of Nebraska Medical Center, Center for Neurovirology and Neurodegenerative Disorders, 985215 Nebraska Medical Center, Omaha, NE 68198-5215. Website: <http://www.unmc.edu/cnnd/>.**

University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

POSTDOCTORAL POSITION is available immediately. Candidate should have experience in global optimization and Monte Carlo methods, and in developing respective FORTRAN programs. Please send curriculum vitae (with e-mail address) and names and telephone numbers of three references to: **Dr. Istvan Sugar, Department of Biomathematical Sciences, Mount Sinai School of Medicine, NY 10029.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

The Laboratory of Molecular Microbiology seeks a Postdoctoral Fellow (M.D.-D.V.M. and/or Ph.D.) with a strong background in cell biology, molecular virology, or molecular pathology who has a particular interest in AIDS pathogenesis. Our laboratory utilizes simian immunodeficiency virus (SIV) infection of monkeys as a model for human AIDS for the development of vaccines and the study of pathogenesis. The focus of our pathogenesis studies are the delineation of viral and host factors responsible for variable disease outcome following SIV-infection with a particular interest in the study of the mechanisms for the lack of disease observed in SIV-infected natural host species. The successful candidate would study the dynamics of infection and immune responses in experimental SIVagm-infection of macaque monkeys (an AIDS model) and African green monkeys using a variety of tissue culture techniques, viral load assays, immunohistochemistry, *in situ* hybridization, and cellular immunology. The applicant should have some prior experience in dealing with animal models as well as expertise in molecular retrovirology.

The position is available immediately for a duration of two to five years. Starting salary is dependent on qualifications.

Applicants are requested to submit a curriculum vitae and three letters of reference to: **Dr. Vanessa Hirsch, Laboratory of Molecular Microbiology, NIAID Twinbrook II Facility, 12441 Parklawn Drive, Rockville, MD 20852 USA. Telephone: 301-496-2976.**

NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION BIOMIMETICS AND TISSUE ENGINEERING Northwestern University

A NIH Postdoctoral Training position is available immediately in an interdisciplinary research group investigating biomimetic synthesis of materials for tissue engineering applications. Applicants should have a Ph.D. in materials science, biomedical engineering, chemical engineering, chemistry (organic, polymer, or biochemistry), or a related field. Specific areas of interest include synthesis, self-assembly, and biomolecular engineering of materials. Send a curriculum vitae, statement of research interests, and the names of three references to: **Phillip B. Messersmith, Ph.D., Division of Biological Materials, Northwestern University, 311 East Chicago Avenue, Chicago, IL 60611. E-mail: philm@nwu.edu.** NU is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minorities. U.S. citizens/permanent residents only.

Professor M. C. Pirrung seeks POSTDOCTORAL FELLOWS in bioorganic and nucleic acid chemistry/biochemistry. Recent Ph.D's with diverse interests sought for multidisciplinary research environment. Projects involve combinatorial chemistry, DNA synthesis, photochemistry, microfabrication (DNA "chips"), RNA analysis. See website: www.chem.duke.edu/~pirrung. Send curriculum vitae, publication list, and references (with contact information) to: **Department of Chemistry, Duke University, P.O. Box 90317, Durham, NC 27708. FAX: 919-660-1591.**

POSTDOCTORAL POSITIONS. Available immediately to study the neural mechanisms of opioids-induced analgesia. Experience in molecular biology and antinociceptive tests in rodents is essential. Knowledge in the role of neurotransmitters in antinociception induced by opioids is desirable. Applicants should submit curriculum vitae and two letters of recommendation to: **Dr. Leon Tseng, Department of Anesthesiology, Medical College of Wisconsin, P.O. Box 26509, Milwaukee, WI 53226. Telephone: 414-456-5686; FAX: 414-456-6507; e-mail: ltseng@mcw.edu.**



**THE UNIVERSITY
OF QUEENSLAND**

Equal opportunity in employment is University policy.

CENTRE FOR MARINE STUDIES

Foundation Professor of Marine Studies and Director

The Chair of Marine Studies was created as part of a major initiative of the Faculty of Biological and Chemical Sciences to acknowledge the prominence of our University in matters relating to the sea and to promote collaborative efforts in the conservation of our tropical coastal waters with sister institutions here and abroad.

Applicants who are eager to direct research and teaching and enhance the activities of three marine research stations associated with the Great Barrier Reef and coastal Queensland would be suited to this position. The incumbent will seek to integrate a wide range of activities concerning the marine environment across the University of Queensland (ranging from anthropology, botany, biochemistry, chemistry, earth sciences, economics and management, engineering, health and veterinary sciences, law and tourism). A further challenge is to develop existing and establish new postgraduate courses and research for fee-paying international students and to consolidate income from external sources to maintain the marine research stations and their research vessels.

Applicants should be well qualified academically with a demonstrated record of research and scholarship in any field germane to the marine environment. We seek to appoint a Professor possessing an outstanding research record, management flair, entrepreneurial skills and the ambition and demonstrated ability to engage the interest and financial support of federal and state government agencies.

The salary for a Professor is \$A91,821 per annum. A salary loading for the Directorship of the Centre also applies.

A written position brief and selection criteria can be obtained from Ms Narelle Hall, telephone +61-7-3365-4333, fax +61-7-3365-4755 or email cms@mailbox.uq.edu.au. Further information about the position should be directed to Professor Colin Dobson, Interim Director of the Centre for Marine Studies on telephone +61-7-3365-2579, fax +61-7-3365-1588, email c.dobson@mailbox.uq.edu.au, or Professor Michael McManus, Executive Dean, Faculty of Biological and Chemical Sciences on telephone +61-7-3365-1609, fax +61-7-3365-1613 or email mcmanus@plpk.uq.edu.au.

A position brief and general information about the Centre can also be found at <http://ilc.fabacs.uq.edu.au/cmshome.html>.

The University requires four (4) copies (an original plus three copies) of an application and résumé. Applications, quoting **Reference No. 24499** and including the names and contact details (mail, fax and email) of three referees, should be forwarded to Ms Sue Lowrey, Personnel Officer, Faculty of Biological and Chemical Sciences, The University of Queensland, Brisbane Qld 4072 Australia.

Closing date for applications: 31 May 1999.



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Exciting opportunities at the FMHS for full-time academic staff as Assistant/Associate/Full Professor or "Teacher" category

Established in 1986 and recently moved into a completely equipped new building, the FMHS provides an integrated problem-oriented undergraduate medical curriculum with English as the medium of instruction. Appointees will join a dynamic team of medical educators, researchers, and support staff who maintain academic balance in medical education, basic science and clinical research, clinical care, and community and university service.

Basic requirements for appointment in Departments of **ANATOMY, BIOCHEMISTRY, MEDICAL EDUCATION, MICROBIOLOGY, PATHOLOGY, PHARMACOLOGY, and PHYSIOLOGY:** PhD or MD obtained by research, experience teaching medical students, and research productivity. Basic requirements for appointment in **COMMUNITY MEDICINE, FAMILY MEDICINE, INTERNAL MEDICINE, OBSTETRICS & GYNECOLOGY, PEDIATRICS, PSYCHIATRY, RADIOLOGY and SURGERY:** MD or MBBS followed by well-supervised advanced training, higher professional recognition, experience teaching medical students and advanced trainees, research productivity, and understanding of GME accreditation and membership/fellowship/certification in North America, Australia, Europe, and by the Arab Board. Appointees in Basic Science & Clinical Departments will be familiar with USMLE and MCCEE.

The UAE is an open and tolerant society and clearly one of the most attractive places to live and work in the Middle East.

Faculty receive tax-free salary, generous leave, and support for accommodation/furnishings, annual air fares, educational assistance for up to three children, and international conferences.

Further information may be obtained from the web site at <http://www.uaeu.ac.ae> or Chair of the respective department by tel +971-3-672000 or fax +971-3-672001.

Applications should include full CV and publication list, names/addresses/fax of five referees, and letter indicating position sought, depth of interest, experience, and suitability for the post sent to:

The Dean (c/o Mr C. P. Nair)
Faculty of Medicine and Health Sciences
United Arab Emirates University
P O Box 17666, Al Ain, United Arab Emirates

Applications closed 1 September 1999; previous applicants need not apply.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN SIGNAL TRANSDUCTION

Postdoctoral positions are available through a NIH-funded training program in signal transduction in the College of Medicine of the University of Illinois at Chicago. Fellows may work in the laboratories of any of the 24 training faculty, who are in six basic science departments of the College. Research interests of the faculty range from molecular to cellular aspects of signal transduction. For information on the training faculty and their research interests please see web-site: <http://www.uic.edu/depts/mcbtp/sttp/>.

Candidates must be U.S. citizens or hold permanent resident alien status and must have or expect to soon have either Ph.D. or M.D.

Interested applicants are invited to apply by sending their curriculum vitae and three letters of recommendation to: **Dr. Peter G. W. Gettins, Training Director, Department of Biochemistry and Molecular Biology, M/C 536, University of Illinois at Chicago, 1819 West Polk, Chicago, IL 60612.** Minority applicants are particularly encouraged to apply. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW MOLECULAR BIOLOGY

Position to study interactions of biologically active peptides with bacterial ribosomes and RNA. Ph.D. in biology, molecular biology, chemistry, biochemistry, or a related discipline is required. Experience working with RNA, ribosomes, and/or molecular genetics in bacteria preferred. Competitive salary commensurate with experience. Send curriculum vitae, three letters of recommendation, and a brief statement of research interests to: **Paul Lovett, Ph.D., Department of Biological Sciences, University of Maryland Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21250.** UMBC is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for a NIH-funded study of tumor host interactions, and particularly modulation of tumor cell survival by glycoconjugates. Candidates should have two years of postdoctoral experience and publications demonstrating training in molecular and cellular biology. Experience with animal tumors is desired. Please send curriculum vitae and three references to:

Stephan Ladisch, M.D.
Scientific Director
Children's Research Institute
Children's National Medical Center
Washington, D.C. 20010
FAX: 202-884-3929

POSTDOCTORAL POSITION is available immediately to pursue the molecular genetic analysis of the Asian longhorned beetle (ALB). Studies will focus on the development of DNA markers/genetic analysis to determine the origin of ALB infestations and to investigate ovipositing behavior. The approaches used for these studies could include RAPDs, ALFPs, etc. Experience in molecular biology is required. The starting salary for this position is \$40,560. Please send your résumé to: **Dr. James Slavicek, USDA Forest Service, 359 Main Road, Delaware, OH 43015.** E-mail: jslavice/ne_de@fs.fed.us. The U.S. Forest Service is an Equal Employment Opportunity/Affirmative Action Employer. U.S. citizenship required.

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE position available in an active research program focused on macrophage biology related to atherosclerosis and vessel wall disease. Training/experience in cell/molecular biology and a background in atherosclerosis-related research preferred. Stable funding and competitive compensation offered. Reply with curriculum vitae, a cover letter, and three references to: **Dr. Theodore Mazzone, Director, Endocrinology and Metabolism, Rush Medical Center, 1653 West Congress Parkway, Chicago, IL 60612.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN SKIN PRECANCER RESEARCH

Positions are available immediately for highly motivated Ph.D. or M.D. graduates interested in the molecular and cellular forces driving clonal expansion and regression in precancers. Lying at the interface of basic biology and the clinic, questions being addressed include the role of apoptosis resistance and sunlight in driving clonal expansion; apoptosis and immunity in precancer regression; genetics of UVB- and UVA-induced apoptosis; and redox mechanisms by which chemopreventive antioxidants include apoptosis specifically in transformed cells. Studies use gene expression arrays, primary keratinocytes in defined medium, transgenic mice, immunostained epidermal whole-mounts, and reporter transfections. Candidates with experience in apoptosis, redox regulation, molecular biology, or dermatology should send curriculum vitae, statement of career research interests, and names of three references to:

Douglas E. Brash, Ph.D.
Department of Therapeutic Radiology
Yale School of Medicine
P.O. Box 208040
New Haven, CT 06520-8040
E-mail: douglas.brash@yale.edu
FAX: 203-785-6309

Yale University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS

Two NIH-funded Postdoctoral positions are available to study the mechanism by which vitamin K-dependent proteins are posttranslationally modified by the gamma-carboxylase to render them active. Combined biochemical and molecular biological approaches will be used to study the structure, function, and *in vivo* regulation of the carboxylase, and define its role in hemostasis, bone morphogenesis, and growth control (see website: www.ri.ccf.org/ri/pi/berknek.html). Candidates should have a Ph.D. in biochemistry or a related field, and should send a curriculum vitae and telephone numbers for three references by e-mail or FAX to: **Dr. Kathleen Berkner, Department of Molecular Cardiology/NB50, Lerner Research Institute of the Cleveland Clinic, 9500 Euclid Avenue, Cleveland, OH 44195.** E-mail: berknek@cesmtp.ccf.org; FAX: 216-444-9263.

POSTDOCTORAL POSITION available immediately in marine molecular toxicology to study the effects of heavy metal toxicity on symbiotic cnidarians, including corals. Applicants must have a Ph.D. with an emphasis in molecular toxicology. Experience with metalloproteins or other stress-related proteins is preferred. Experience in RNA and gene expression techniques required, e.g., RNA extractions, degenerate primer design, RT-PCR, Northern hybridizations, etc. Send a letter of application, curriculum vitae, and three letters of recommendation to: **Dr. Virginia Weis, Department of Zoology, Oregon State University, Corvallis, OR 97331.** E-mail: weisv@bcc.orst.edu by May 14, 1999. OSU is an Affirmative Action/Equal Employment Opportunity Employer and has a policy of being responsive to dual-career needs.

A POSTDOCTORAL POSITION in X-ray crystallography is available in the NIAID, NIH to study the structure and function of cell surface receptors involved in immune system function. The particular project involves crystallization and structure determination of a Fc gamma receptor in complex with ligand Fc. In addition to our in-house X-ray diffraction facility, the laboratory also has access to a dedicated synchrotron source at Brookhaven. The starting salary is from \$27,500 to \$34,000 depending on experience. Interested candidates should send curriculum vitae to: **Peter D. Sun, Ph.D., National Institute of Allergy and Infectious Diseases, NIH, 12441 Parklawn Drive, Room 111, Rockville, MD 20852.** FAX: 301-402-0284; e-mail: sun@magenta.niaid.nih.gov. NIH is an Equal Opportunity Employer.

POSITIONS OPEN

CARDIOVASCULAR POSTDOCTORAL POSITIONS

The Children's Hospital of Philadelphia

A position is available immediately to study the molecular genetic control of the extracellular matrix in cardiovascular development and disease. The main projects in the laboratory focus on cardiac valve disorders, molecular mechanisms of cardiac arrhythmias, and gene delivery systems.

Experience in molecular biology, protein and nucleic acid biochemistry, signal transduction, and cell culture is helpful. All strong candidates will be considered.

Please send a curriculum vitae, summary of research interest, and the names of three references to:

Robert J. Levy, M.D., Director
Cardiovascular Research Laboratories
The Children's Hospital of Philadelphia
Abramson Pediatric Research Center—1107
Philadelphia, PA 19104-4399
E-mail: levyr@email.chop.edu

The Children's Hospital of Philadelphia, an affiliate of the University of Pennsylvania, is an Affirmative Action/Equal Opportunity Employer.

Three **POSTDOCTORAL POSITIONS** are available immediately to study the molecular basis of mutagenesis. Current research projects involve mutator phenotype in cancer, lethal mutagenesis of HIV, infidelity of DNA replication, Werner syndrome helicase nuclease, and creation of new molecules for cancer gene therapy. Applicants must have extensive experience in biochemistry and/or molecular biology and strong quantitative skills. Candidates with relevant background in chemistry, virology, or genetics will also be considered. Send letter, curriculum vitae, and the names and contact information for three references to: **Dr. Lawrence A. Loeb, Department of Pathology K-072 HSB, Box 357705, University of Washington, Seattle, WA 98195-7705.** FAX: 206-543-3967; e-mail: laloeb@u.washington.edu.

One **POSTDOCTORAL POSITION** and one **SENIOR TECHNICIAN** position immediately available to develop novel prognostic markers in human brain tumors using cDNA microarray technology to assess large-scale gene expression analysis. The project is focused on technology development and is a unique opportunity with a strong affiliation to an industry sponsor. Candidates should have a Ph.D. in molecular sciences. Send curriculum vitae and the names of three references to: **Dr. Stanley F. Nelson, Department of Human Genetics, Room 5357 Gonda, 695 Charles Young Drive South, UCLA Medical Center, Los Angeles, CA 90095.** E-mail: snelson@ucla.edu; FAX: 310-794-5446. UCLA is an Affirmative Action Employer.

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POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study the regulation of streptococcal genes associated with adhesion in experimental biofilms. Ph.D. with experience in molecular biology required. Send curriculum vitae, a statement of research and career goals, and contact information for three references to: **Dr. Mark Herzberg, 17-164 Moos Tower, Department of Preventive Sciences, University of Minnesota School of Dentistry, Minneapolis, MN 55455.** Equal Opportunity Employer.

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ANNOUNCEMENT

First Chair in addiction research in Germany will be inaugurated by an international conference "The Future of Addiction Research and Treatment." The Congress will be held in Heidelberg/Mannheim, Germany, October 1 and 2, 1999. Contact: **Prof. Dr. K. Mann, M.D., Department of Addictive Behaviour and Addiction Medicine, Central Institute of Mental Health, P.O. Box 12 21 20, Mannheim D-68072 Germany.** E-mail: sucht@as200.zl-mannheim.de; FAX: +49-621-1703-945.

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GLOBAL OPPORTUNITIES

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The University, opened in 1991, has programs at both undergraduate and graduate levels with English as the medium of instruction. The Department of Chemistry invites applications for the captioned positions. For the first position, the candidate should have a Ph.D. degree and expertise in the isolation and characterization of organic natural products, in particular that pertaining to bioactive principles in plants used in TCM. Experience in the use of modern NMR in structural elucidation is essential; knowledge of phytochemistry and medicinal chemistry is desirable. The candidate is expected to teach organic and/or analytical chemistry courses. For the second position, the candidate should have extensive postdoctoral experience and be able to develop a strong program relating to advanced materials, especially nanostructural materials with useful optical, electrical, magnetic, or other functional properties. Teaching responsibilities would be in the areas of analytical chemistry and materials science, including special topics such as photo-, electro-, or solid state chemistry. These are tenure-track positions with highly competitive salaries; the minimum salary for Assistant Professor is approximately US\$71,465, and for Associate Professor, US\$100,289 per annum. Initial appointment will be on a three-year contract; a gratuity will be payable upon successful completion of contract. Generous fringe benefits including assistance in housing will be provided where applicable. Applications with a curriculum vitae, research proposals, and three reference letters should be sent to: **Search Committee, Department of Chemistry, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong.** FAX: 852-2358-1594; e-mail: hcindy@ust.hk by June 12, 1999, but the search will continue until the positions are filled. Further information can be found in the website: <http://www.ust.hk/>.

POSITIONS OPEN

Two **POSTDOCTORAL POSITIONS** to study the effects of general anesthetics on signal transduction and neurotransmitter release in the central nervous system. (1) Training in neurochemistry or neuropharmacology necessary; experience in subcellular fractionation, superfusion, HPLC, GC, and/or spectrofluorimetry desirable. (2) Training in confocal microscopy and imaging necessary; experience in electrophysiology desirable. Send statement of research interests and experience, curriculum vitae, and three references to: **Dr. H. C. Hemmings, Jr., M.D., Ph.D., Box 50, LC-203, Weill Cornell Medical College, 525 East 68th Street, New York, NY 10021.** E-mail: hchemmi@mail.med.cornell.edu.

GLOBAL OPPORTUNITIES

POSTDOCTORAL POSITION IN FUNCTIONAL GENOMICS

A U.S. Department of Energy Postdoctoral Research position is available at SANBI to support the development of a novel method for functional assignment using structural data and statistical analyses.

The Researcher will support the development of a novel algorithm for biological sequence assignment. The position entails the development of databases of related sequences for training the algorithm and the analysis of sets of sequences generated by the algorithm. Dataset generation and assessment is based on the three-dimensional similarity of the encoded proteins or on genetic features as appropriate to the sequence grouping under study.

The successful candidate will be knowledgeable of protein structural features, motifs, families, and their comparison, in addition to genetic sequence analysis, control elements, and the currently available sequence databases. Programming skills are essential, and specific experience with any or all of the following will be extremely beneficial: Perl, C, Fortran, HTML/CGI, Unix.

Assessment information: Candidates are requested to submit a full curriculum vitae and the names, e-mail addresses, and telephone numbers of two referees. Please send either an e-mail attachment or a letter to: **Winston Hide, SANBI, University of the Western Cape, Private Bag X17, Bellville 7535, South Africa.** E-mail: winhide@sanbi.ac.za.

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