

SECOND ANNOUNCEMENT AND FINAL CALL FOR PAPERS

6th INTERNATIONAL SYMPOSIUM ON METAL IONS IN BIOLOGY AND MEDICINE

May 7 – 10, 2000

Caribe Hilton Hotel and Convention Center, San Juan, Puerto Rico

Co-Sponsored by the AAAS Caribbean Division

The Organizing Committee and the Armed Forces Institute of Pathology invite you to participate in the 6th *International Symposium on Metal Ions in Biology and Medicine*, to be held on May 7-10, 2000, in San Juan, Puerto Rico-USA. The objective of the 6th ISMIBM is to foster exchange of opinions between professionals and specialists working on analysis, research and applications of metal ions, trace elements and minerals in biological, biochemical, medical sciences, toxicology, nutrition, and environmental health. The scientific program, composed of plenary and concurrent sessions, and poster presentations is designed to promote intensive and productive dialogue among experts in these fields. A special program including short courses on toxicology, analytical methods, pathology, remediation strategies, and environmental medicine has also been organized and will take place on the day preceding the beginning of the plenary and concurrent sessions.

Original contributions (oral and/or poster presentations) are invited on the following themes:

| | |
|--|------------------------------|
| Metals and Environmental Health | Metals and Homeostasis |
| Molecular Toxicology of Metals | Metals and Hormone Actions |
| Carcinogenicity of Metals | Metals and Enzyme Activity |
| Speciation of Metals and Other Elements | Metals and Chelation Therapy |
| Metals in Clinical Applications | Health Effects of Arsenic |
| Epidemiology and Occupational Health | Metals and Aging |
| Risk Assessment of Trace Element Status and Health | |
| Metals and Disease: Environmental and Toxicologic Pathology | |
| Effects of Low and High Nutritional Trace Element Status | |
| Advanced Methods for the Analysis of Trace Elements and Metal Ions | |

The important deadlines for the 6th ISMIBM are:

- Submission of Full Manuscript: March 3, 2000
- Early Registration: January 14, 2000
- Hotel Reservations: April 10, 2000

The 6th ISMIBM will take place in San Juan, Puerto Rico, on the grounds of the Caribe Hilton Hotel and Convention Center. The language of the Symposium is English.

For additional information and to receive a complete copy of the Second Announcement and Final Call for Papers with Registration Form, please contact the Symposium Service Office at:

American Registry of Pathology

ATTN: Dr. Jose A. Centeno, Chairman, 6th ISMIBM Email: centeno@afip.osd.mil

Armed Forces Institute of Pathology

Washington, DC 20306-6000

Telephones: Toll Free (USA only): 1-800-577-3749; or 1-202-782-2637

Fax: International Toll Free Fax: +1-877-891-3482 ; or +1-202-782-5020

Website (for On-line Registration to the 6th ISMIBM): <http://www.afip.org/edu>

Science from Yale—

The Planets

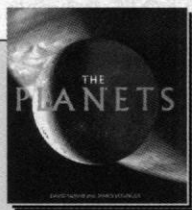
David McNab & James Younger

"As intelligent and readable as

Carl Sagan's *Cosmos*, *The Planets* surveys the history and current knowledge of the solar system. Original and fresh . . . a page-turner."

—David Grinspoon

This book is the companion volume to an eight-part A&E television series. 47 b/w + 232 color illus. \$35.00



Life in the Treetops

Adventures of a Woman in Field Biology

Margaret D. Lowman

Foreword by Robert Ballard

"Lowman . . . gives a funny, unassuming and deeply idiosyncratic chronicle of her trials and triumphs as a field biologist of tree canopies and other ecosystems."

—Liesl Schillinger, *New York Times Book Review*
30 illus. \$27.50



Gobi

Tracking the Desert
John Man

"This profile of the Gobi is as entrancing as the wild, beautiful, and scientifically bountiful desert itself."

—Michael Novacek
12 b/w + 7 color illus. \$24.95

Watching, from the Edge of Extinction

Beverly Peterson Stearns & Stephen C. Stearns

"Intelligently affecting stories of animals reduced to rarity, what leads to their predicament, and the people and ideas working to ward off extinction."

—Kirkus Reviews 14 illus. \$30.00

New in cloth and paper

Managing the Environment, Managing Ourselves

A History of American Environmental Policy

Richard N. L. Andrews

"Easily the most comprehensive history of American environmental policy I have ever seen. It will serve as an excellent reference book for policy historians, environmental historians, and environmental policy analysts."

—Robert Paehlke

28 illus. \$65.00 cloth; \$30.00 paperback

Reclaiming the Commons

Community Farms and Forests in a New England Town

Brian Donahue

Foreword by Wes Jackson

"A wonderful addition to the literature of urban and small-scale farming . . . [this] book maps out the possibilities for a greening of the suburbs."—Bob Schildgen, *Sierra* 10 illus. \$27.50



Vulcan's Fury

Man Against the Volcano

Alwyn Scarth

"In a neatly interdisciplinary work, Scarth describes 15 volcanic eruptions important to earth science or to human history."—*Publishers Weekly*

70 b/w + 30 color illus. \$29.95

What a Blessing She Had Chloroform

The Medical and Social Response to the Pain of Childbirth from 1800 to the Present

Donald Caton, M.D.

"A fascinating story. . . . [Caton] deals not only with medicine and science but also with the conflicting views among both physicians and the public."

—*Booklist* 8 illus. \$30.00



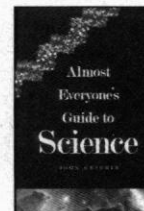
Almost Everyone's Guide to Science

The Universe, Life, & Everything

John Gribbin

"A definitive treatment of the subject, clearly and elegantly written. If you're going to own just one general science book, you'd do well to make it this one."

—Kirkus Reviews (starred review) \$24.95



Announcing a new series:

Darwinism Today is a series of books by leading figures in the field of evolutionary theory. The series developed out of a program at the London School of Economics that presents the latest Darwinian thinking and explores its application to humans. (All titles in series are \$9.95 cloth)

Neanderthals, Bandits & Farmers

How Agriculture Really Began

Colin Tudge

Colin Tudge overturns the traditional view that farming began in the Middle East 10,000 years ago, quickly led to the Neolithic farming revolution, and ended the hunting-gathering lifestyle.

Shaping Life

Genes, Embryos & Evolution

John Maynard Smith

John Maynard Smith explains how progress in genetic and embryology research can help reconcile developmental biologists' reductionist viewpoint with the holistic approach of evolutionary biologists.



The Truth About Cinderella

A Darwinian View of Parental Love

Martin Daly & Margo Wilson

"A short but fascinating book . . . [that] suggests that cruel step-parents are far from a myth. They are the uncomfortable, but literal, truth."

—Nigel Hawkes, *The Times* (London)

Divided Labours

An Evolutionary View of Women at Work
Kingsley Browne

In this intriguing analysis, Kingsley Browne proposes that much of the responsibility for the gender gap and the "glass ceiling" in the modern labor market lies with evolved differences between the sexes.

Yale University Press

P.O. Box 209040, New Haven, CT 06520
www.yale.edu/yup/ 1-800-YUP-READ



NEW PRODUCTS

PROTEIN EXPRESSION KITS

The FLAG Protein Expression Kit is designed to express, purify, and detect recombinant proteins fused to the FLAG peptide epitope. The system offers a choice of three expression hosts (*Escherichia coli*, mammalian, and yeast), cytoplasmic or extracellular expression, non-denaturing protein purification, detection with highly specific monoclonal antibodies, proteolytic removal of the FLAG sequence with enterokinase, and a choice of carboxyl- or amino-terminal tagging.

Sigma

For more information call 800-521-8956 or **circle 143** on the Reader Service Card

NANOCRYSTALLINE FLUORESCENT MARKERS

A unique solution for identifying cells and molecules in complex biological mixtures, BioPixels are coated fluorescent nanocrystals that can be as small as a few nanometers in diameter. They are produced in different colors, each color corresponding to a narrow, symmetrical emission spectrum. BioPixels are functionalized using a variety of reactive organic groups. With these, users can link their own ligands (antibodies, peptides, proteins, nucleic acids, etc.) to the BioPixel color of their choice. The particles are also available with specific affinity ligands such as avidin, streptavidin, or lectins already bound to the crystal surface. BioPixels can be used as fluorescent tags in imaging, sequencing, DNA analysis, sorting, labeling, and identification processes.

BioCrystal

For more information call 614-818-1170 or **circle 144** on the Reader Service Card

SCANNING DENSITOMETRY SYSTEM

NucleoVision 640 is a complete scanning densitometry system designed to document, quantitate, and archive samples including polyacrylamide gel electrophoresis gels, two-dimensional gels, high-density arrays, x-ray films, and photographic prints with consistency and accuracy. The device features high-speed, single-pass scanning technology with full 12-bit pixel depth (4096 gray scales) and a dynamic range of 0 to 3.0 optical density. The system's on-board transparency scanning capabilities, transmittance

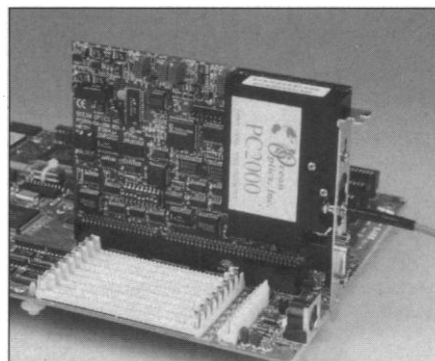
NucleoTech

For more information call 888-869-4080 or **circle 145** on the Reader Service Card

and reflectance modes, and 8.5-inch by 14-inch scanning area provide support for many kinds of biological assays. The instrument's software provides simple, integrated features for image acquisition, image archiving, analysis, and publication tools. Analysis tools include molecular weight calculation, one-dimensional automated multilane densitometry, dot/slot blot analysis, free object quantification, genotyping, gel scoring, and two-dimensional spot densitometry.

MINIATURE PLUG-IN SPECTROMETER

The PC2000 is a high-sensitivity spectrometer mounted on a half-length ISA-bus A/D card that installs into an ISA-bus slot in a personal computer. Occupying a single card slot in the PC, the spectrometer requires no bench space. The spectrometer features a compact optical



bench coupled to a high-sensitivity, 2048-element charge coupled-device detector, and is especially useful for low light-level applications, such as fluorescence and plasma monitoring.

Ocean Optics

For more information call 727-733-2447 or **circle 146** on the Reader Service Card

QUANTITATIVE CELL MIGRATION ASSAY

The QCM (Quantitative Cell Migration) assay provides a fast (typically 2 to 4 hours), consistent haptotaxis assay that makes use of an extension of traditional Boyden Chamber technology. The assay makes use of chambers coated with fibronectin and can reduce assay time by up to 80%. Results are interpreted spectrophotometrically with a standard microplate reader.

Chemicon

For more information call 800-437-7500 or **circle 147** on the Reader Service Card

MICROWELL PHOSPHATASE SUBSTRATE

Kirkegaard & Perry Laboratories

For more information call 800-638-3167 or **circle 148** on the Reader Service Card

BluePhos Microwell Substrate for alkaline phosphatase provides lower background and increased sensitivity than pNPP in enzyme-linked immunosorbent assays (ELISA). It is easily prepared by mixing two liquid components, with no tablets to dissolve. It produces a deep blue color that remains blue after the addition of a stopping reagent (595 to 650 nm). The rapid reaction rate permits accurate, quantitative measurement in kinetic ELISA.

LITERATURE

Antibodies to Rat Antigens is a brochure on more than 100 antibodies. Some of the unique antibodies offered include a wide range specific for rat macrophage markers and for use in detecting microglia in brain. These antibodies can be used for flow cytometry, histology, immunoblotting, protein immunoblotting, and other procedures.

Harlan Bioproducts for Science

For more information call 800-972-4362 or **circle 149** on the Reader Service Card

Handbook of Fluorescent Probes and Research Chemicals, Seventh Edition is available on CD-ROM. This edition contains comprehensive technical and application information and a searchable bibliography of more than 32,000 references for Molecular Probes' products. The CD-ROM also features more than 200 images and movies

demonstrating many fluorescent probes in action. The information is organized in an easy-to-use, searchable format compatible with any Java-capable browser.

Molecular Probes

For more information call 800-438-2209 or **circle 150** on the Reader Service Card

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.

Classified Advertising

To obtain information on rates, deadlines, editorial features, and bonus distribution schedules, call our sales office or visit *Science Careers* at www.scienceonline.org and click on "How to Advertise." All advertising is subject to publisher's approval.

UNITED STATES

Display Classified Advertising

Bren Peters Kristin Westapher
Tel: 202-326-6541 Tel: 202-326-6555
Fax: 202-289-6742
E-mail: science_displayads@aaas.org

Line Classified Advertising

Christina Geiger Kathleen Clark
Tel: 202-326-6532 Tel: 202-326-6722
Fax: 202-289-6742
E-mail: science_classifieds@aaas.org

Line ads are not agency commissionable. Ads submitted should not include any bold, italicized, or abbreviated words. *Science* will edit and typeset ads according to *Science* style requirements. *Science* cannot provide proofs of typeset line ads. *Science* will provide an estimated cost of line ads at time of placement. This is an approximate cost only. Please provide contact name, telephone, billing information, and purchase order numbers with your order.

Online Classified Advertising

Beth Dwyer
Tel: 202-326-6534
Fax: 202-289-6742
E-mail: science_internet@aaas.org

Every employment ad placed in *Science* will be featured in our job database online for 4 weeks. Call to find out how to link to thousands of additional job seekers online with *Science Professional Network*.

www.scienceonline.org

Ad Materials: Send to: *Science Classified Advertising*, 1200 New York Avenue, NW, Room 911, Washington, DC 20005

EUROPE

Line, Display, and Online Classified Advertising

Deborah Cummings
Tel: +44 (0) 1223 326 500
Fax: +44 (0) 1223 326 532
E-mail: european_ads@science-int.co.uk

Ad Materials: Send to: Advertising Dept., Bateman House, 82-88 Hills Road, Cambridge CB2 1 LQ, United Kingdom

Discounts: A 3% cash discount is granted to all prepaid ads.

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

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

To Subscribe to *Science* call:
202-326-6417 or 1-800-731-4939

POSITIONS OPEN

AVIAN BIOLOGIST. Idaho State University, Department of Biological Sciences, anticipates a nine-month, tenure-track position for an avian biologist at the level of **ASSISTANT PROFESSOR**, commencing August 2000. The successful candidate will hold a Doctorate (postdoctoral experience preferred), have a strong commitment to undergraduate education, and will train students from undergraduate through doctoral levels. The successful candidate will develop a vigorous research program through interaction with natural resource-based user groups and state and federal agencies and will complement existing faculty strengths, especially in ecology (see [website: http://www.isu.edu/departments/bios](http://www.isu.edu/departments/bios)). The successful candidate will also function as a part-time (one-month) Curator of Birds for the Idaho Museum of Natural History. Teaching responsibilities include ornithology, participation in environmental physiology and physiological ecology courses, and introductory biology or animal behavior. The position will remain open until filled. Please send a letter of application; curriculum vitae; and descriptions of teaching experience, teaching philosophy, and research goals. Also have three letters of recommendation sent by January 30, 2000, to: **Avian Biologist Search Committee Chair, Department of Biological Sciences, Box 8007, Idaho State University, Pocatello, ID 83209-8007.** *Idaho State University is an Equal Opportunity/Affirmative Action Employer.*

FIVE FACULTY POSITIONS IN BIOLOGY MINNESOTA STATE UNIVERSITY Mankato

The Department of Biological Sciences invites applications for three tenure-track **ASSISTANT PROFESSOR** positions: (1) Aquatic Ecologist, (2) Soil Ecologist, and (3) Plant Physiologist. In addition, applications are invited for two fixed-term (one-year) **FACULTY POSITIONS**: (1) Microbiologist and (2) Invertebrate Zoologist/Parasitologist. A Ph.D. is required for tenure-track positions, and an M.S. is required (Ph.D. preferred) for fixed-term positions. Duties include teaching undergraduate and graduate courses and serving on departmental committees. In addition, tenure-track faculty are expected to develop a research program that involves both undergraduate and graduate students. All positions begin 24 August 2000. Complete notices of vacancy, position descriptions, and application procedures can be obtained at [website: http://cset.mankato.msus.edu/cset/collegenews/vacancies.htm](http://cset.mankato.msus.edu/cset/collegenews/vacancies.htm) or by contacting the Department of Biological Sciences at Telephone: 507-389-2786. *Minnesota State University, Mankato, is an Affirmative Action/Equal Opportunity Employer.*

Environmental Biologist: Saint Mary's University of Minnesota seeks tenure-track **ASSISTANT PROFESSOR** beginning August 2000. Ph.D. in environmental science by August 2000 with good teaching recommendations required. The successful candidate will teach 11 to 13 credit hours weekly in environmental science courses, general biology, and mentor student research. Submit application, curriculum vitae, official transcripts, statement of teaching philosophy, and three references to: **Dr. Raymond Faber, Chair of Search Committee, Biology Department, Saint Mary's University of Minnesota, 700 Terrace Heights #10, Winona, MN 55987-1399.** Review begins January 10, 2000, and continues until position is filled. *Affirmative Action/Equal Opportunity Employer Institution.*

Aquatic Zoologist is sought to fill a tenure-track position at the **ASSISTANT PROFESSOR** level. Undergraduate teaching responsibilities include introductory biology, zoology, and limnology. Supervision of undergraduate research is essential. Consult [website: http://www.western.edu](http://www.western.edu). Ph.D. required. Send curriculum vitae, teaching philosophy, research goals and transcripts, and have three reference letters sent to: **Biology Search Committee, Western State College, Gunnison CO 81231.** Review of applications begins 17 January 2000. *Western State College is committed to diversity and equality in education and employment.*

POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF PHYSIOLOGY UNIVERSITY OF SASKATCHEWAN College of Medicine

We invite applications for a tenure-track position at the level of Assistant Professor. Candidates must have a Ph.D. in physiology or a closely related discipline and postdoctoral experience. They must have demonstrated excellence in research in regulatory and integrative physiology. The successful applicant will be expected to develop a strong, externally funded research program. This program should be in the cardiovascular or neuroscience fields, which are areas of research strength in the College. She or he will contribute to the teaching of undergraduate students and the supervision of graduate students.

This position has been cleared for advertising at the two-tier level: Applications are invited from qualified individuals regardless of their immigration status in Canada. *In accordance with Canadian immigration requirements, however, priority will be given to Canadian citizens and permanent residents. Applications must indicate citizenship.* Please send curriculum vitae, your three most significant publications, and the names of three references by March 3, 2000, to:


**Dr. Wolfgang Walz
Department of Physiology
College of Medicine
University of Saskatchewan
107 Wiggins Road
Saskatoon, Saskatchewan S7N 5E5 Canada**

The University of Saskatchewan is committed to the principles of employment equity. Women, people of aboriginal descent, members of visible minorities, and people with disabilities are invited to identify themselves as members of these designated groups on their applications.

UNIVERSITY OF VERMONT PLANT MOLECULAR BIOLOGY

The Department of Botany and Agricultural Biochemistry announces the availability of a tenure-track position at the **ASSISTANT PROFESSOR** level. The successful candidate will be expected to establish a vigorous, externally funded research program in plant molecular biology. Teaching responsibilities will include an undergraduate course in plant physiology and courses determined by the needs of the department and interests of the candidate. Candidates must have: (1) a Ph.D. and (2) significant postdoctoral experience in plant molecular biology. Information about the department can be found at our [website: www.uvm.edu/~plantbio](http://www.uvm.edu/~plantbio). Review of applications will begin December 15, 1999, and continue until the position is filled. Send letter of application, including a statement of research and teaching interests, curriculum vitae, and three letters of reference to: **Dr. Mary Tierney, Chair, Plant Molecular Biology Search, Department of Botany and Agricultural Biochemistry, Marsh Life Science Building, University of Vermont, Burlington, VT 05405.** *Women and representatives of diverse racial, ethnic, and cultural groups are strongly encouraged to apply. Affirmative Action/Equal Opportunity Employer and Educator.*

The Immunobiology Program of the University of Vermont seeks a full-time faculty position at the **ASSISTANT to FULL PROFESSOR** level to establish an independent research program in immunology that complements those of current faculty. These include T cells development, Th1/Th2 regulation, death receptors, and signal transduction. Applicants must have a Ph.D. or M.D. degree and a minimum of three years of postdoctoral experience and a strong record of publication. Send letter of research interests, curriculum vitae, and names and addresses of three references to: **Dr. Ralph C. Budd, Immunobiology Program, The University of Vermont College of Medicine, Given Medical Building D-305, Burlington, VT 05405-0068.** Telephone: 802-656-2286; e-mail: rbudd@pop.uvm.edu. We strongly encourage the submission of materials by February 1, 2000. *UVM is an Affirmative Action/Equal Opportunity Employer. Applications from women and people from diverse racial, ethnic, and cultural backgrounds are encouraged.*



On September 5-8th, 2000 in Grand Rapids, Michigan, leading members of the life science community will participate in a symposium entitled "Cancer & Molecular Genetics in the Twenty-first Century". This very special event will herald the inauguration of the Van Andel Research Institute by featuring distinguished scientists sharing their vision for research dedicated toward improving human health.

Cancer & Molecular Genetics in the Twenty-first Century

September 5-8, 2000
Grand Rapids, Michigan

CO-ORGANIZERS

George F. Vande Woude, Ph.D.
Van Andel Research Institute

Michael S. Brown, M.D.
University of Texas Southwestern Medical Center

SYMPOSIUM 2000 SPEAKERS

James Allison, Ph.D.
University of California, Berkeley

Richard Axel, M.D.
Columbia University College of Physicians and Surgeons

David Baltimore, Ph.D.
California Institute of Technology

Elizabeth Blackburn, Ph.D.
University of California San Francisco

David Botstein, Ph.D.
Stanford University

Michael Brown, M.D.
University of Texas Southwestern Medical Center

Suzanne Cory, Ph.D.
The Walter and Eliza Hall Institute of Medical Research

Titia de Lange, Ph.D.
Rockefeller University

Renato Dulbecco, M.D.
The Salk Institute for Biological Studies

Ronald Evans, Ph.D.
The Salk Institute for Biological Studies

Gwendolyn Fyfe, M.D.
Genentech, Inc.

Joseph Goldstein, M.D.
University of Texas Southwestern Medical Center

Edward Harlow, Ph.D.
Harvard Medical School

Tony Hunter, Ph.D.
The Salk Institute for Biological Studies

Richard Klausner, M.D.
National Cancer Institute

George Klein, M.D., D.Sc.
The Karolinska Institute

Stanley Korsmeyer, M.D.
Dana-Farber Cancer Institute

David Lane, Ph.D.
University of Dundee

Arnold Levine, Ph.D.
The Rockefeller University

Richard Lifton, M.D., Ph.D.
Yale University

David Livingston, M.D.
Dana-Farber Cancer Institute

Tom Maniatis, Ph.D.
Harvard University

Paul Marks, M.D.
Memorial Sloan-Kettering Cancer Center

Frank McCormick, Ph.D.
University of California San Francisco

Daniel Nathans, M.D.
Johns Hopkins University

Tony Pawson, Ph.D.
Samuel Lunenfeld Research Institute, Mt. Sinai Hospital

Bruce Ponder, Ph.D.
University of Cambridge

Janet Rowley, M.D.
The University of Chicago Medical Center

Joseph Schlessinger, Ph.D.
New York University Medical Center

Dennis Slamon, M.D., Ph.D.
University of California Los Angeles

Phillip Sharp, Ph.D.
Massachusetts Institute of Technology

Chuck Sherr, M.D., Ph.D.
St. Jude Children's Research Hospital

Bruce Stillman, Ph.D.
Cold Spring Harbor Laboratory

Shirley Tilghman, Ph.D.
Princeton University

Robert Tjian, Ph.D.
University of California, Berkeley

Harold Varmus, M.D.
National Institutes of Health

Craig Venter, Ph.D.
Celera Genomics

Due to limited space
your early registration
is encouraged



Van Andel Research Institute

Founded by Jay and Betty Van Andel

201 Monroe Avenue NW, Suite 400
Grand Rapids, MI 49503

616.235.8242

Fax 616.235.8245

www.vari.org

A healthy vision.

SmithKline Beecham, a world class leader in Research and Development, continues to pioneer innovative pharmaceutical and healthcare products and services. We have the following opportunities available at our state-of-the-art suburban Philadelphia, PA facility.

Flow Cytometry Facility Operator

Working in our Molecular Virology and Host Defense Department, you will operate and maintain the core flow cytometry and cell sorting facility for multi-disciplinary use. You will also supervise and train new and experienced users to run the FACScan and analyze results, provide sterile cell sorting of subpopulations and develop flow cytometric assays. The candidate will be expected to directly contribute to ongoing discovery efforts in hematopoiesis, infectious disease and immunology via the application of flow cytometric and related technologies. We require a good practical and theoretical understanding of the discipline, a BS, MS or PhD degree, and a minimum of 5 years of cytometry and sorting experience in a multi-user situation. Solid experience in a variety of flow cytometry analyses, and sorting experience, preferably of small subpopulations of viable cells, is also essential. (Ad Code: 992000)

Enzymologist

Working in our Anti-Infectives department, you will determine detailed mechanistic data on bacterial enzymes and their inhibitors, and design and optimize assays for high throughput screens. You will also maintain accurate scientific data, records, and familiarity with relevant methodologies for maintenance and analysis of data. We require demonstrated expertise in a biological discipline typical of a PhD with some post-doctoral experience or equivalent, and practical expertise in complex enzyme kinetics. Experience in generating, collating, evaluating and drawing conclusions from experimental data, as well as in making oral scientific presentations and with publications in international/national scientific journals is essential. (Ad Code: 991999)

SmithKline Beecham is dedicated to an innovative workplace and supports you with career long opportunities and learning. We offer a competitive benefits and compensation package. To be considered for these suburban Philadelphia, PA, opportunities, please forward your scannable resume to: SmithKline Beecham, c/o National Resume Processing, (Ad Code), P.O. Box 1070, Burlington, MA 01803. Indicating Ad Code is essential. Principals only, no agencies, please. For a full listing of current opportunities, or to submit a resume online, visit our website at www.sb.com/careers

Developing talent through equality of opportunity, M/F/D/V.

Realize your potential

SB
SmithKline Beecham
Pharmaceuticals

LABORATORY DIRECTOR

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

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

Interested applicants should submit a resume to:

**PO Box 18568
Minneapolis, MN 55418-0568**

No Agencies Please
Equal Opportunity Employer

Benedictine University **Tenure Track Positions for 2000-2001** **ASSISTANT PROFESSOR** **BIOLOGICAL SCIENCES**

The Department of Biological Sciences of Benedictine University is seeking an environmental biologist/ecologist with a strong commitment to undergraduate, liberal arts education. This is a tenure-track position at the ASSISTANT PROFESSOR level beginning either spring semester 2000, or fall semester 2000. Responsibilities include teaching specialty courses in freshwater ecology, introductory biology and participation in the Natural Science HHMI funded interdisciplinary laboratory. Excellence in teaching, evidence of potential for scholarly development commitment to undergraduate research, and Ph.D is required. Send curriculum vitae with statement of teaching in a liberal arts environment and research interests, 3 letters of recommendation and transcripts to: Rev. Theodore Suchy, O.S.B. Department of Biological Sciences, Benedictine University, 5700 College Road, Lisle, IL 60532, Email: tsuchy@ben.edu. Women and minorities are especially encouraged to apply.

ASSISTANT PROFESSOR-GRADUATE **DEPARTMENT OF EXERCISE** **PHYSIOLOGY**

The Graduate Department of Exercise Physiology is seeking a full-time Assistant Professor with emphasis in teaching human and exercise physiology. Also responsible for conducting and supervising research and graduate internship program. An earned doctorate in human physiology, exercise science, or biological sciences is required. Position requires excellence in teaching and evidence of potential for scholarly development. Send letter of application, curriculum vitae, statement of teaching philosophy, transcripts and 3 letters of recommendation to: Dr. Peter Healey, Search Committee Chair, Graduate Department of Exercise Physiology, Benedictine University, 5700 College Road, Lisle, IL 60532, Phone (630) 829-6227.

Benedictine University

Informing today—Transforming tomorrow

Completed applications will be evaluated as received until the position is filled. Equal Opportunity Employer

LABORATORY OF HUMAN BACTERIAL PATHOGENESIS

Employment Opportunities

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

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

2 Positions in the Pathogen Molecular Genetics Section

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

2 Positions in the Genome-Scale Functional Investigation Section

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

Position in the Pathogen-Vector Molecular Interaction Section

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

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

NIH is an Equal Opportunity Employer

SENIOR RESEARCH SCIENTIST IN CANCER BIOLOGY

PEDIATRIC ONCOLOGY BASIC AND TRANSLATIONAL RESEARCH PROGRAM
BRITISH COLUMBIA RESEARCH INSTITUTE FOR CHILDREN'S AND WOMEN'S HEALTH
DEPARTMENTS OF PEDIATRICS/PATHOLOGY, UNIVERSITY OF BRITISH COLUMBIA

The recently created Pediatric Oncology Basic and Translational Research Program at Children's and Women's invites applications for a faculty position at the Assistant/Associate Professor level. The successful candidate will be expected to maintain an active research laboratory as a principal investigator and to develop strong collaborations with an expanding group of research teams focusing on the biology and molecular genetics of childhood cancer. The candidate should have a Ph.D. and/or M.D. degree and a strong background and emerging publication record in the molecular biology of human cancer, with an emphasis on apoptotic and signal transduction pathways in cancer cells, oncogenes and tumour suppressor genes and their identification, and/or the study of aberrant gene expression in human malignancies. Furthermore, the successful applicant will play an integral role in the recruitment of additional scientists to this research program. A highly competitive startup package is available for the successful candidate. Salary and rank will be commensurate with qualifications and experience. This is a full-time grant tenure track position. Anticipated start date is July 1, 2000.

As a full-time faculty member, in addition to the research goals, the successful candidate is expected to participate in the teaching programs and departmental committee work of the Department of Pediatrics.

The Pediatric Oncology Basic and Translational Research Program is the cornerstone of a major initiative to expand both basic and clinical pediatric cancer research at the University of British Columbia and is a joint program of the Departments of Pediatrics (division of Hematology/Oncology) and Pathology. Objectives of the basic and translational research program include the identification and characterization of genetic abnormalities and altered cellular pathways in childhood solid and hematological malignancies, the application to diagnosis and prognostic classification of childhood cancers, and the development of novel and innovative molecular approaches to the treatment of childhood cancer. The program is located in newly constructed laboratory space within the BC Research Institute for Children's and Women's Health, adjacent to the Centre for Molecular Medicine and Therapeutics. The site offers an excellent academic environment with strong transgenic and other state of the art research facilities. It is situated in Vancouver, a large cosmopolitan seaport and one of the most beautiful and livable cities in the world.

Applicants should send a CV, a brief summary of research interests and accomplishments and the names of 3 references by January 15, 2000 to:

Poul HB Sorensen, MD, PhD, FRCPC, Director, Molecular Pathology, Departments of Pathology and Pediatrics, Room 3082, BC Research Institute for Children's and Women's Health, 950 West 28th Avenue Vancouver, B.C. V5Z 4H4 Fax: (604) 875-2496 E-mail: psor@interchange.ubc.ca

UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian Immigration requirements, priority will be given to Canadian and permanent residents of Canada.



**CHILDREN'S & WOMEN'S HEALTH
CENTRE OF BRITISH COLUMBIA**



Faculty Position in Plant Genetics Department of Biological Sciences Purdue University

The Department of Biological Sciences, Purdue University, invites applications for a tenured position in the area of PLANT GENETICS. We are especially interested in applicants who use genetic and functional genomic approaches to investigate exciting problems in PLANT CELL AND DEVELOPMENTAL BIOLOGY. We expect that the successful applicant will be hired at the level of associate or full professor, and will begin by September 2000.

The successful candidate should have a Ph.D. in an appropriate discipline and significant postdoctoral experience. We seek applicants with an established record of extramural funding, outstanding research, teaching, and training. The successful candidate will have access to graduate students from the Department of Biological Sciences as well as several interdisciplinary programs including Plant Biology, Genetics, and Biochemistry and Molecular Biology. The candidate will join a large group of plant biologists on the Purdue campus which has recently been supplemented by the hiring of a number of new faculty in the area of plant genomics. The Department of Biological Sciences and Purdue University maintain outstanding facilities for conducting plant research. In addition to greenhouses and environmentally-controlled chambers, the University sponsors a genomics center that conducts high through-put DNA sequencing, microarray analysis, and a reverse genetics facility to identify T-DNA insertions in Arabidopsis genes. There are also excellent facilities, including confocal microscopes and electron microscopes, for molecular cytology.

Applicants should send a curriculum vitae, three letters of recommendation, a description of past research and teaching activities, a list of recent funding sources, and a description of proposed future research activities to: **Dr. Stanton B. Gelvin, Chair, Plant Genetics Search Committee, Department of Biological Sciences, Purdue University, West Lafayette, IN 47907-1392.** Review of candidates will begin February 15 and continue until the position is filled.

Purdue University is an Equal Opportunity/Affirmative Action Employer



Tenure-Track Faculty Positions



University of Pittsburgh School of Medicine

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

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

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

GRADUATE STUDENT OPPORTUNITIES

Molecular Biology



The University of Texas at Austin

Come join the **Graduate Program in Molecular Biology** at The University of Texas at Austin which provides a highly interactive, supportive environment with many opportunities to participate in cutting edge research. The diverse, multidisciplinary program encompasses over 80 faculty and includes the 14 faculty hired over the past two years in association with the new Institute for Cellular and Molecular Biology. Faculty research interests cover a wide gamut: structural biology, regulation of cellular and viral gene expression, rationale drug design, bioinformatics, cell and developmental biology, RNA gene expression, molecular genetics, cancer biology, neurobiology, nutrition, immunology and molecular evolution.

Graduate students receive training through a core curriculum, small seminar courses and access to renowned seminar speakers. Each student can choose to conduct their thesis research in the laboratory of one of the 80 participating faculty and specialize in one of several tracks (Cell & Developmental Biology, Molecular Genetics, Chemical Biology, Neurobiology, Bioengineering, etc).

The program's nerve center, the Institute for Cellular and Molecular Biology, was established recently to expand and foster the development of molecular biology at The University of Texas at Austin. The Institute is centered in the new 150,000 sq. ft. Molecular Biology Building with state-of-the-art laboratories, staffed core facilities for nucleic acid sequencing and synthesis, peptide sequencing and synthesis, flow cytometry, electron, deconvolution and confocal microscopy, molecular modeling, graphics, computing and mouse genetic engineering. It is situated adjacent to the other science buildings on the UT campus.

The University of Texas is located in Austin which is nestled in the Texas hill country and which just ranked second in Money magazine's "Best Places to Live". Hope to see you in Austin!

For admission and other information visit our web site at www.esb.utexas.edu/molbio/ or contact us at:

Graduate Program in Molecular Biology
The University of Texas at Austin
Molecular Biology Building
Austin, Texas 78712.
Telephone (512)-471-2150.

Postdoctoral opportunities also exist. Inquiries for these positions should be directed to individual faculty members or to:

The Institute for Cellular & Molecular Biology
Molecular Biology Building
The University of Texas at Austin
Austin, Texas 78712.



Merck Research Laboratories, a world leader in biological and pharmaceutical research, is currently seeking to expand efforts in our Pharmacology Department. We are located in **West Point, PA** (only 25 miles NW of Philadelphia).

Ph.D. SCIENTISTS

We are seeking Ph.D.'s with experience in *in vivo* neuropharmacology/neurophysiology and a minimum of 2-4 years' relevant postdoctoral or industrial experience to join an expanding multidisciplinary team studying basic mechanisms and novel therapeutic approaches in the areas of analgesia, migraine, neurodegeneration and psychotherapeutics. Established expertise in the use of behavioral animal models, particularly analgesia models, and *in vivo* neuroelectrophysiological recording is highly desired.

We offer excellent salaries, benefits programs, and opportunities for professional growth at our modern research facilities. To be considered, please send your curriculum vitae with a cover letter, the names of 3 references and **Job Code XHXMRSMKH12109** to: **Merck Positions, P.O. Box 92164, Los Angeles, CA 90009-2164. E-mail: merck@isearch.com Fax: (310) 337-3393.** Only candidates considered for interviews will receive responses. We are an Equal Opportunity Employer, M/F/D/V.



TIGR

THE INSTITUTE FOR GENOMIC RESEARCH

POSTDOCTORAL POSITION EUKARYOTIC GENOMICS

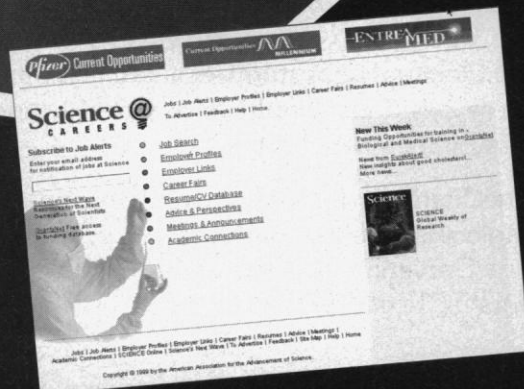
The Institute for Genomic Research (TIGR) is a not-for-profit research institute founded in 1992. The scope of research at TIGR includes structural, functional, and comparative analysis of genomes and gene products in viruses, eubacteria, pathogenic bacteria, archaea, and eukaryotes, both plant and animal, including the mouse, the rat and the human. TIGR's pioneering approach to genome based analysis produced the first-ever genome sequence of a free living organism in 1995, and TIGR scientists have completed twelve more genomes and chromosomes since then, making it the world's premier center of whole genome sequencing and analysis. TIGR currently has over 200 staff including 30 faculty. Please visit our web site at <http://www.tigr.org>.

A position is available to participate in two NIH-funded protozoan parasite (*Trypanosoma brucei* and *Trypanosoma cruzi*) genome sequencing projects. Qualified candidates will possess a Ph.D. in molecular biology, genetics, or related fields, with experience working with existing bioinformatics tools. Knowledge of relational databases and proficiency in Perl are desirable. Please send curriculum vitae with the names, phone numbers, and e-mail addresses of three references to: **TIGR, Attn: Human Resources/PDNE, 9712 Medical Center Drive, Rockville, MD 20850; fax: (301) 838-0208; e-mail: jobs@tigr.org; EOE.**

New... Science Professional Network announces its new
Resume/CV Database

www.sciencecareers.org

Post your Resume/CV and
discover your future.



...in 2000

Look for a new and improved **Science Professional Network** including:

- New name
- New features
- New design
- New URL

Stay tuned...

Science
Discover Your Future

Opportunities in Infectious Disease & Oncology

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

PhD Scientist - Cancer Genomics

We are seeking a PhD level scientist in the Cancer Genomics group within Oncology discovery research. The position involves the use of expression profiling, microarrays and quantitative PCR, for the discovery and validation of novel drug targets for cancer chemotherapy. The ideal candidate has a minimum 2 years' postdoctoral experience. Highest priority will be given to applicants with expertise in molecular biology, genomics/bioinformatics and cancer research. **Job Code: XHXDD8177**

PhD Scientists - Virology

We are looking for 2 outstanding PhD scientists with a strong molecular biology/biochemistry background to join the Virology Department. The successful applicants will be part of a team that is at the forefront of developing new therapies against Hepatitis C Virus (HCV). The first opening will primarily focus on the HCV helicase enzyme. The ideal candidate will be interested in the enzymology of helicases and/or replication enzymes. The second position is for our HCV protease project and will require knowledge of expression systems and cell-based assays. The ideal candidate will be research oriented and have 2-5 years' postdoctoral or industry experience, along with leadership skills and familiarity with virology. **Job Code: XHXDD9143**

PhD Postdoctoral Scientist - Signal Transduction/Genomics

This position will focus on analysis of a novel MAPK module utilizing traditional as well as cutting edge technologies such as large scale DNA arrays and sequence databases. Training will be provided in signal transduction and genomics. The ideal candidate will have a PhD and research experience in signal transduction. **Job Code: XHXTM99995**

PhD Scientist - High Throughput Screening

The ideal candidate will have a PhD in Biochemistry or a related discipline and 2-4 years' experience in statistical evaluation of experimental data, automated data management, programming skills (VB, C++), plus biochemical assay development, laboratory automation and fluorescence methodologies. **Job Code: XHXDD9977**

BS/MS Research Associate - Molecular Biology

The Molecular Ecology Group of the Natural Products Department is seeking a motivated individual to participate in research directed toward the isolation of novel microorganisms from natural habitats using traditional and molecular approaches. Additional responsibilities include growth, fermentation and maintenance of actinomycetes and fungi. The ideal candidate will have a BS/MS in Microbiology or Molecular Biology plus a background in computer science. **Job Code: XHXDD9970**

BS/MS Research Associate - Antibacterial

The antibacterial primary assay group is seeking a talented scientist interested in applying cutting-edge technology utilizing genomics-based approaches for advancing the discovery of new antibacterial drugs. The ideal candidate will have a BS/MS in Biological Sciences, and 0-8 years' experience in biochemistry, microbiology, bacterial genetics, or molecular biology. **Job Code: XHXDD9139**

BS/MS Research Associate - High Throughput Screening

Entry-level opportunities for Biochemists interested in automated high throughput screening at the front line of new drug discovery for cancer chemotherapy, infectious diseases, central nervous system disorders and cardiovascular diseases. The ideal candidates will have a BS/MS in Biochemistry or related degree, with knowledge and experience in enzyme and receptor binding assays using modern quantitative techniques, plus a background in computer science desired. **Job Code: XHXDD9974**

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

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

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



**Schering-Plough
Research Institute**

Using Science for Human Advantage

POSITIONS OPEN

COMPUTATIONAL NEUROSCIENCE

The Division of Life Sciences at The University of Texas at San Antonio invites applications for a tenure-track **ASSISTANT PROFESSOR** faculty position in computational neuroscience pending budget approval. The Division of Life Sciences consists of 24 faculty members and offers a Bachelor's degree in biology, Masters' degrees in biology and biotechnology, and a Doctoral degree in biology with an emphasis in neurobiology. Responsibilities include teaching courses offered either at the UTSA Downtown Campus or the Main Campus, research, and administrative service. Required qualifications include a doctoral degree in neurobiology or related discipline and postdoctoral experience. Preferred qualifications are research interests in both experimental and theoretical neuroscience, with research emphasis on the physiology of motor systems or reinforcement learning. Set-up funds and laboratory space in the newly constructed Biosciences Building are available. Applicants must submit a letter of application specifying the position of interest; a curriculum vitae; three publications; a research statement; and the names, postal addresses, e-mail addresses, and telephone numbers of three references. Applications and all required materials must be received with a FAX or postmark date no later than January 15, 2000, to: **Dr. Joe L. Martinez, Jr., Director, Division of Life Sciences, The University of Texas at San Antonio, 6900 North Loop 1604 West, San Antonio, TX 78249. FAX: 210-458-5658.** UTSA is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply. Applicants who are not U.S. citizens must state current visa and residency status.

NEUROANATOMIST/ ASSISTANT PROFESSOR DEPARTMENT OF ANATOMY AND CELL BIOLOGY Oklahoma State University College of Osteopathic Medicine

The Department of Anatomy and Cell Biology seeks applications for a tenure-track faculty position beginning in the spring or summer of 2000. Candidates are expected to develop a strong, independent research program with external funding; start-up funds available. Requires a Ph.D. or equivalent and sufficient teaching and research experience to coordinate a neuroanatomy course for medical and graduate students. *Must be eligible for employment under Immigration Reform and Control Act.* Send curriculum vitae, teaching experience, statement of current and future research plans, and three letters of reference to: **Dr. Bill Meek, Department of Anatomy and Cell Biology, Oklahoma State University College of Osteopathic Medicine, 1111 West 17th Street, Tulsa, OK 74107** by February 1, 2000. Website: <http://osu.com.okstate.edu>. OSU is an Affirmative Action/Equal Opportunity Employer.

PLANT PHYSIOLOGIST

The Department of Botany, Oklahoma State University, invites applications for a tenure-track **ASSISTANT PROFESSOR** in plant physiology. Applicants must have a Ph.D., postdoctoral experience, and broad training in organismal plant physiology. The successful candidate will develop an externally funded research program using molecular approaches to investigate either plant growth and development or plant responses to the environment. Teaching will include a plant physiology course with laboratory, a graduate course in the area of specialty, and participation in the introductory biology program. Applicants should submit a curriculum vitae, statement of research and teaching interests, recent publications, and names of three references to: **James Ownby, Head, Department of Botany, Oklahoma State University, Stillwater, OK 74078.** For full consideration, please send application by January 14, 2000. Applications will be accepted until position is filled. Preferred start date is August 2000. *Oklahoma State University is an Affirmative Action/Equal Employment Opportunity Employer committed to multicultural diversity.*

POSITIONS OPEN

The Department of Biological Sciences, University of South Alabama, seeks applications for two tenure-track **ASSISTANT PROFESSORSHIPS**. One position is for a geneticist whose research involves an environmental focus and who can teach genetics from molecular to population levels. The other position is for a mycologist or phycologist whose research involves a broad approach ranging from the cellular to the environmental levels and who can teach classes in nonvascular plants and mycology. In addition to teaching undergraduate courses in their respective areas, they will develop advanced courses and contribute to the introductory biology program. Candidates must have a Ph.D., a strong commitment to teaching at the undergraduate level, and a plan to develop an active research program. Postdoctoral experience is preferred. Send curriculum vitae, statements of teaching philosophy and research goals, and names of three references to: **Dr. Anne Boettcher (Genetics) or Dr. Tim Sherman (Mycology/Phycology), Department of Biological Sciences, LSCB 124, University of South Alabama, Mobile, AL 36688-0002.** The Department of Biological Sciences has 13 full-time faculty and modern facilities. The department has a Master's program. See website: <http://www.usouthal.edu/biology> for further information. Application deadline for both positions is January 14, 2000. *Affirmative Action/Equal Employment Opportunity/Minorities/Females/Disabled.*

TENURE-TRACK POSITION NMR SPECTROSCOPY University of Illinois at Chicago College of Medicine Department of Physiology and Biophysics Program in Cardiovascular Sciences

The Department of Physiology and Biophysics and the Program in Cardiovascular Sciences at the University of Illinois at Chicago, College of Medicine, invites applications for a tenure-track position at the **ASSOCIATE PROFESSOR** level. A Ph.D. or equivalent degree and substantial experience and accomplishments in the area of application of NMR spectroscopy to problems in cardiovascular biology and pathology are required. The successful candidate will be expected to establish independently and jointly funded programs as an integral member of a team of investigators and to participate in the teaching of graduate and professional courses in physiology. For fullest consideration, send curriculum vitae and three letters of reference by December 31, 1999, to: **R. John Solaro, Ph.D., Chair, Search Committee, University Professor and Head, Department of Physiology and Biophysics, University of Illinois at Chicago College of Medicine, 835 South Wolcott Avenue (M/C 901), Chicago, IL 60612-7319.** *UIC is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

Two tenure-track physiology faculty positions (**ASSISTANT/ASSOCIATE PROFESSOR**). Responsibilities include teaching courses at the introductory and upper levels in human physiology and such courses as pharmacology, pathology, or nutrition. In addition, you will be expected to develop new courses in your area of expertise. You will be responsible for advising majors in biomedical and health sciences and serving on appropriate institutional committees. We are looking for enthusiastic and energetic individuals who want to teach in an environment committed to quality undergraduate and graduate education. Research that can provide students first-hand experience in the laboratory is strongly encouraged. An earned Ph.D. in physiology or related area or M.D. with postdoctoral experience in physiology, pharmacology, pathology, or nutrition and excellent teaching skills are required. Research experience with undergraduate students preferred. Initial review of candidate files will begin on December 6, 1999, and continue until the positions are filled. Complete applications must include transcripts, curriculum vitae, and three letters of recommendation. Apply to: **Dr. Miles Hacker, Chair, Biomedical and Health Sciences Search Committee at Grand Valley State University, 327 PAD, Allendale, MI 49401.** E-mail: hacker@mgsu.edu.

POSITIONS OPEN

ASSOCIATE PROFESSOR OF TROPICAL FORESTRY AND EXECUTIVE DIRECTOR OF THE FOREST MANAGEMENT TRUST

The School of Forest Resources and Conservation (University of Florida) and The Forest Management Trust (NGO) have formed a unique public-private partnership for a Program of Excellence in Tropical Forestry. We are searching for an innovative, experienced person to lead the Program as a full-time (12-month), tenure-track Associate Professor and Executive Director of the Trust. Responsibilities include developing an externally funded research and technical assistance program focused on the more sustainable management of natural tropical forests, teaching undergraduate and graduate courses, recruiting graduate students, and organizing an annual conference.

We seek a Ph.D. in forest ecology and management with experience in field research in tropical forestry, classroom and field instruction, competition for external funds, and leadership in tropical forestry or a related activity. Communication skills in English must be excellent; a second language (especially Spanish or Portuguese) is preferred.

To apply, submit a letter, one-page statement of interest and intent regarding the position, curriculum vitae, university transcripts, and list of four references to: **Dr. Henry L. Gholz, School of Forest Resources and Conservation, University of Florida, Gainesville, FL 32611.** E-mail: hlg@nersp.nerdc.ufl.edu. For more details, see website: www.sfrc.ufl.edu. Applications must be received by January 31, 2000. Nominations are welcome. *UF is an Affirmative Action/Equal Opportunity Employer.*

A tenure-track faculty position in the Department of Microbiology and Immunology (**ASSISTANT, ASSOCIATE, or FULL PROFESSOR**, according to qualifications) is available for an established investigator to study vascular wall biology and pathobiology. The candidate is expected to have completed the requirements for the M.D., Ph.D., M.D.-Ph.D., or equivalent; a productive postdoctoral experience; and have demonstrated the ability to develop an independent, extramurally funded research program. Resources are available to assign and modify space and include a start-up package providing security for three years to permit the development of an independent investigative program. An interactive community of scientists with proactive administrative and institutional support and backing contributes to a productive ambience. Interactive established programs include developmental vasculogenesis; microbial (including viral) triggers of atherosclerosis; autoimmune mechanisms of disease (lupus, scleroderma, others); and programs in structural biology, lipid mediators, signal cascades, and neuropeptide mediators. Please respond to:

**Susan Edmonds
Medical University of South Carolina
Department of Microbiology and Immunology
Basic Science Building, Room 203
173 Ashley Avenue, Box 250504
Charleston, SC 29425
FAX: 843-792-2464
E-mail: edmondss@musc.edu**

The Medical University of South Carolina (MUSC) is a public, Equal Opportunity Employer.

ASSISTANT PROFESSOR/RESEARCH

Immediate opening for a nontenure-track research Assistant Professor to join an interdisciplinary group studying molecular mechanism of steroid hormone action and aging. Postdoctoral experience in the area of gene regulation is required. Send curriculum vitae and names of three references to: **Arun K. Roy, Ph.D., Professor, Cellular and Structural Biology, Mail Code: 7762, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900.** FAX: 210-567-3846. *The University of Texas Health Science Center is an Equal Employment Opportunity/Affirmative Action Employer.*



**MAYO CLINIC
ONCOLOGY RESEARCH
FACULTY/RESEARCH POSITION**

Mayo Clinic and Foundation invites applications for a full-time career scientist position at the level of assistant, associate or full professor with joint appointments in the Department of Oncology and an appropriate basic science department. Candidates should have an outstanding, NIH-funded research program in basic or translational aspects of cancer chemotherapy. Preference will be given to applicants with an interest in the area of proliferative signaling pathways and their inhibition. An attractive package of salary, benefits, and research support will be provided. Please send a curriculum vitae and a one page statement of research interests by March 1, 2000 to:

Scott H. Kaufman, M.D., Ph.D.
Chair, Search Committee
1301 Guggenheim Building
Mayo Clinic
Rochester, MN 55905

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

Looking for brilliant career opportunities?



**Then look here...
www.scienceonline.org**

- Job Search • Job Alerts • Employer Profiles
- Advice and Perspectives
- Meetings and Announcements
- Academic Connections

Science Professional Network
www.scienceonline.org • Click on Science Careers

A Whole New Way to Deliver Opportunity

Inhale Therapeutic Systems is developing non-invasive systems that enable deep lung delivery of large molecule drugs as an alternative to injection. While our biotechnology and pharmaceutical partners make breakthroughs in new drug development, Inhale is developing technologies to deliver those therapies more efficiently to the people who need them.

Our partnership with Pfizer addresses pulmonary delivery of insulin. With Biogen, we are working on a non-invasive formulation of its leading multiple sclerosis drug, AVONEX. Inhale's novel system integrates customized formulation and proprietary fine-powder processing, packaging and inhalation device technologies. Now, with our valuable corporate alliances and our broad product portfolio in various stages of development and commercialization, this is an exciting time to join the Inhale team.

QUALITY

QC Research Associates

You will perform general quality control validations, including equipment and analytical method validation. You will support QC release and stability studies, and write validation protocols, SOPs, and final reports. Requires a BS/MS in Chemistry or related field and a minimum 2 years industry experience. Knowledge of GMPs and practical experience in chromatography and spectroscopy are essential. Job #530SCI

QC Scientist/Associate Scientist

You will develop and validate analytical methods for various molecules in aerosol powder formulations. You will also support project teams for method fine-tuning, method validation and clinical lot release. Requires a degree in Chemistry or related field and 5+ years experience in the biotech/pharmaceutical industry with an emphasis on analytical methods development and protein validation. Job #486SCI

DRUG DEVELOPMENT AND RESEARCH GROUPS

Scientist/Sr. Scientist

You will develop analytical methods, and characterize peptide and protein structures in the solid state and in solution. You will participate with project teams in the generation of reports and presentations. A PhD in Chemistry or Biochemistry and up to 5 years industrial experience are required. A minimum 2 years methods development experience for protein and peptide analysis is needed. Job #458SCI

Research Associate/Sr. Research Associate

In this role, you will develop analytical methods for protein and peptide powder formulations, with an emphasis on the solid state and on solutions formulation into fine particulate powders for aerosol delivery via inhalation. Requires a BS or MS in Chemistry, Biology, Chemical Engineering or related discipline and a minimum 2 years industrial experience. Familiarity with HPLC analysis, vibrational spectroscopy, and thermal analysis is also required. Job #454SCI

Scientists

You will lead and coordinate Inhale's research efforts to understand the factors which determine the bioavailability of inhaled peptides and proteins in the lungs. You should have a pharmacology background and experience working with the absorption, distribution, metabolism, and excretion (ADME) of protein and peptide pharmaceuticals. A PhD and 2+ years experience, or a BS/MS and 7+ years experience are required. Job #492SCI

Scientist

You will carry out formulation research projects to advance technology in the area of solid state stability of dry powder inhalation aerosols containing protein and peptide drugs. A PhD in Physical Chemistry or Physics and at least 1 year experience in applied research are required, along with a strong theoretical understanding of material science and physical chemistry. Job #450SCI

Inhale offers excellent benefits and an informal, friendly work environment. Salary commensurate with experience. Please reference job number in all correspondence. Please send resume and cover letter to: Inhale Therapeutic Systems, Attn: Human Resources, 150 Industrial Way, San Carlos, CA 94070; email: jobs@inhale.com. EOE.

inhale
• • • • •

POSITIONS OPEN

GRANT ASSISTANT OR ASSOCIATE PROFESSOR

Department of Earth and Atmospheric Sciences

The Department of Earth and Atmospheric Sciences of the City College of New York seeks an energetic individual with a background in Earth systems science for a tenure-track position in Science Education within the Division of Science starting July 1, 2000. Applicants must have a special interest in teaching the principles of Earth systems science at the introductory level to teachers, nonscience, and science majors. The position will be funded initially by a grant from the National Science Foundation, with conversion to a tenure-track college line anticipated in September 2001. Initial responsibilities include teaching an interdisciplinary core science curriculum for in-service middle school science teachers; developing an externally funded program of scholarly research in science education, preferably at the college level; and full participation in the operations of the Department. Ph.D. in a scientific discipline related to Earth systems science is required; experience in teaching and curriculum development expected. Salary range \$32,703 to \$45,737. Please send curriculum vitae, statements of teaching and education research interests, and names of three references by January 21, 2000, to: **Dr. Jeffrey Steiner, Chair, Department of Earth and Atmospheric Sciences, Room J106.**

City College of New York
Convent Avenue at 138th Street
New York, NY 10031

An Affirmative Action/Equal Opportunity Employer. Minorities/Females/Disabled/Veterans.

PRINCETON UNIVERSITY ASSISTANT PROFESSOR, BIOPHYSICS

The Physics Department at Princeton University anticipates appointing an Assistant Professor with a research program in biophysics. Applications are especially invited from physicists whose research program will strengthen the Department's participation in Princeton's planned interdisciplinary genomics research center. Biophysics research is currently pursued in the Physics Department (often in collaboration with faculty in other departments) in the laboratories of **Robert Austin, Stanislas Leibler, and Lydia Sohn.** Interested applicants should send a curriculum vitae and a description of their proposed research plan to: **Biophysics Search, Physics Department, P.O. Box 708, Princeton University, Princeton, NJ 08544.** Applicants should also have no more than three reference letters sent to the same address. To receive full consideration, all application materials must be received by February 15, 2000. We are sorry that we cannot accept applications submitted by electronic mail. *Princeton University is an Affirmative Action/Equal Opportunity Employer and particularly welcomes applications from women and members of minority groups.*

ALBANY COLLEGE OF PHARMACY ASSISTANT/ASSOCIATE PROFESSOR PHARMACEUTICS

The Albany College of Pharmacy invites applications for a tenure-track Assistant/Associate Professor position in the Division of Basic and Pharmaceutical Sciences. Applicants must have a Ph.D. in pharmaceuticals, pharmacokinetics or a related discipline, and postdoctoral training experience. The successful candidate will be expected to develop a productive research program. Prior teaching experience is desirable. Teaching responsibilities will be in our Bachelor of Science and Doctor of Pharmacy programs. The position will be available in the fall semester of 2000. Interested individuals should submit a curriculum vitae, a description of future research plans, and the names of three references to: **Jeffrey M. Voigt, Ph.D., Search Committee Chair, Albany College of Pharmacy, 106 New Scotland Avenue, Albany, NY 12208.** Review of applications will begin January 15, 2000. Please visit our website: www.acp.edu for more information about our College. *Albany College of Pharmacy is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

CHAIR, DEPARTMENT OF BIOCHEMISTRY, BIOPHYSICS, AND MOLECULAR BIOLOGY

Iowa State University seeks an outstanding scientist with a distinguished record in research and teaching and demonstrated effective leadership abilities to chair the Department of Biochemistry, Biophysics, and Molecular Biology. The department, with 21 full-time faculty, has a strong research tradition. Educational programs include a full spectrum of graduate and undergraduate programs in biochemistry and biophysics, and the department participates in several interdepartmental programs. A description of departmental programs, faculty, and facilities is available at website: <http://molebio.iastate.edu/bbhtml/homepage.htm>. Applicants are expected to have an active research program with demonstrated success in securing competitive research funding, a strong commitment to graduate and undergraduate education, and a record of professional accomplishments to qualify as a **TENURED PROFESSOR.** The successful candidate will be provided with the means to promote the national and international stature of the Department. Interested applicants should send a copy of their curriculum vitae, a statement of interest in this position, and the names and addresses of three or more references to: **Dr. David J. Oliver, Chair of the Search Committee, Department of Biochemistry, Biophysics, and Molecular Biology, 1210 Molecular Biology Building, Iowa State University, Ames, IA 50011-3260.** E-mail: doliver@iastate.edu. Application review will begin January 31, 2000. *Iowa State University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF CELL BIOLOGY UNIVERSITY OF CALIFORNIA, RIVERSIDE

Applications are invited for a tenure-track position as Assistant Professor of cell biology. New faculty will be actively recruited in this area over the next three years as part of a new initiative in cell biology and neuroscience. Applicants should be interested in the integration of molecular-level information with an understanding of structural, spatial, and compartmental relationships in the cell. Specific areas of interest include chromosome structure and function; receptors; extracellular matrix; membrane trafficking and secretion; and DNA repair, recombination, or transcription. The successful candidate will have a demonstrated record of excellence in research and have an opportunity to contribute to instruction in a wide variety of graduate and undergraduate programs. Applicants must have a Ph.D. or equivalent degree and have postdoctoral research experience. Salary is commensurate with experience, and a competitive start-up package will be available. Applicants should submit a curriculum vitae, statement of research interests and relevant reprints, and should arrange for at least three letters of reference to be sent to: **Chair, Cell Biology Search Committee, 1208 Spieth Hall, University of California, Riverside, CA 92521.** Review of applications will commence on December 10, 1999. However, all applications received by January 31, 2000, will receive full consideration. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS AT INSTITUTE OF BIOMEDICAL SCIENCES NATIONAL SUN YAT-SEN UNIVERSITY Kaohsiung, Taiwan

The Institute has two available positions in biomedicine and bioinformatics; the faculty rank may be **FULL PROFESSOR, ASSOCIATE PROFESSOR** and/or **ASSISTANT PROFESSOR** depending on qualifications and experience. Applicants should send curriculum vitae, list of publications, reprints of major papers, and the names of three references to: **Steven Shoei-lung Li, Professor and Director, Kaohsiung, Taiwan 80424, Republic of China.** Telephone: 886-7-525-5810; FAX: 886-7-525-0197; e-mail: lissl@mail.nsysu.edu.tw.

POSITIONS OPEN

MOLECULAR GENETICS

The Division of Life Sciences at The University of Texas at San Antonio invites applications for a tenure-track **ASSISTANT PROFESSOR** faculty position in molecular genetics pending budget approval. The Division of Life Sciences consists of 24 faculty members and offers a Bachelor's degree in biology, Masters' degrees in biology and biotechnology, and a Doctoral degree in biology with an emphasis in neurobiology. Responsibilities include teaching courses offered either at the UTSA Downtown Campus or the Main Campus, research, and administrative service. Required qualifications include a doctoral degree in the appropriate discipline and postdoctoral experience. Preferred qualifications: candidates who have research interests in neurobiology and mammalian systems. The division is developing a mouse transgenic facility. Set-up funds and laboratory space in the newly constructed Biosciences Building are available. Applicants must submit a letter of application specifying the position of interest; a curriculum vitae; three publications; a research statement; and the names, postal addresses, e-mail addresses, and telephone numbers of three references. Applications and all required materials must be received with a FAX or postmark date no later than January 15, 2000, to: **Dr. Joe L. Martinez, Jr., Director, Division of Life Sciences, The University of Texas at San Antonio, 6900 North Loop 1604 West, San Antonio, TX 78249.** FAX: 210-458-5658. *UTSA is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply. Applicants who are not U.S. citizens must state current visa and residency status.*

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PHYSIOLOGY

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

PHARMACEUTICS/PHARMACOKINETICS FACULTY POSITION NORTH DAKOTA STATE UNIVERSITY Fargo, North Dakota

The Department of Pharmaceutical Sciences at North Dakota State University in Fargo, North Dakota, invites applications for a tenure-track position at the rank of **ASSISTANT PROFESSOR** with appointment beginning August 15, 2000. Screening will begin January 31, 2000, and continue until the position is filled. For more information, including responsibilities, qualifications, and application procedures for this position, visit our website: <http://www.ndsu.nodak.edu/pharmsci/jobs.htm> or e-mail: jsingh@plains.nodak.edu. *NDSU is an Equal Opportunity Institution.*

Postdoctoral Positions in Structural Biology Sloan-Kettering Institute

Positions are available to study molecular mechanisms of vesicular trafficking and protein sorting in the secretory pathway. Projects range from biochemical investigations of protein sorting machinery to X-ray crystallographic studies aimed at establishing structure-function relationships (see Cell 92, 415-423; Cell 95, 237-248; Cell 96, 893-902).

Highly motivated candidates are sought, with a strong background in either protein biochemistry or crystallography. The laboratory is equipped with state-of-the-art facilities for X-ray crystallography, biochemistry and computing.

Letters of application, including a CV and the names of three references, should be sent to: **Jonathan Goldberg, Ph.D., Cellular Biochemistry & Biophysics Program, Memorial Sloan-Kettering Cancer Center, Box 238, 1275 York Avenue, New York, NY 10021. Fax 212-717-3135. EOE/AA.**



**Memorial Sloan-Kettering
Cancer Center**

The Best Cancer Care. Anywhere.

Monsanto's Animal Agricultural Group is the leading organization in the United States in discovering and developing innovative new products for the Dairy Industry. Our product, Posilac, is the largest single dairy product in the world.

SENIOR BIOLOGIST, RESEARCH & DEVELOPMENT

This position is in the Bioassay Group that supports both research and development programs as well as commercial operations. The individual will be expected to develop and validate cell-based assays, perform animal bioassays, and be involved in other projects on an as-needed basis.

Extensive experience in cell culture and some experience in animal experimentation is necessary, as well as documented track record in running bioassays. Excellent communication and organizational skills, as well as a willingness to work in a GMP/GLP environment essential. Knowledge of data processing computer programs and statistics will be required. A Ph.D. in an appropriate biological discipline plus a minimum of 5 years job related experience is a must.

This position is located in St Louis, MO. For fastest consideration, please forward your resume, with Ad Code 99-2641 on your subject line and cover letter, to **Bioassay Group Leader, Monsanto Company, 700 Chesterfield Parkway North, BB3F, St. Louis, MO 63198. EEO/AA Employer M/F/D/V. Please visit our website at: www.monsanto.com**

MONSANTO

Food • Health • Hope™



COLUMBIA UNIVERSITY seeks



- (1) Director, Lamont-Doherty Earth Observatory (LDEO)**
- (2) Vice Provost, Columbia Earth Institute (CEI)**

Columbia University has embarked on a university-wide initiative to further research and education in areas related to the whole earth system and interactions between humans and the global environment. The goal of this initiative is to develop research and education in earth systems and human interactions into a major element of the University, comparable to the Health Sciences. We are seeking dynamic leaders for two central positions in this multidisciplinary endeavor.

(1) Director, Lamont-Doherty Earth Observatory

For 50 years LDEO has been a premier research institution studying geological and earth systems. It has major research programs in solid earth, ocean, and atmospheric sciences and is developing programs focused on the biosphere and on human interactions with global systems. Research funding, principally from federal grants and contracts, exceeds \$50 million annually. Rapid advances in some research fields and increased possibilities for societal applications suggest that the coming decade will be one of challenge and opportunity at LDEO. The Director guides a community of about 550 scientists, staff, and graduate students in these efforts. In the new Director we seek breadth of scientific understanding to match the range of research at LDEO, experience in development and management of a scientific organization, open and participatory leadership style, and active involvement in shaping the national geoscience research agenda.

(2) Vice Provost, Columbia Earth Institute

The CEI is an evolving Columbia initiative to develop new approaches to the complex interrelationships between human and earth systems. It facilitates collaboration among scholars in the physical, biological, and social sciences, as they develop new multidisciplinary educational programs, at all levels, and as they initiate research concerned with human impact on and adaptation to global dynamics. The CEI promotes and expands research, teaching, and public outreach activities both in areas where Columbia has long been active, such as geoscience, and in new areas, based on synergy of Columbia's strengths in the physical, biological, and social sciences. Because the CEI cuts across academic structures of department and school, and includes several affiliated institutes and centers with external (non-Columbia) partners, it has been located administratively in the Office of the Provost. The CEI budget is largely devoted to seeding new research and teaching efforts, through faculty or staff appointments within departments or research centers. In the Vice Provost for the CEI, we seek broad understanding of science and society, commitment to multidisciplinary scientific education (including undergraduate, master's, and Ph.D. levels), and experience in developing new research and instructional programs.

Relationship of the Two Leadership Positions

Columbia seeks leaders who will work together in these efforts: enhancing the relationship between LDEO and other Columbia units, while assuring that the Observatory retains its productivity in basic research and intellectual atmosphere, and taking advantage of the opportunities provided by growing interrelatedness of the natural and social sciences to create innovative educational programs and valuable research initiatives.

Send letter of application with C.V. and other relevant material to the Earth Systems Leadership Search Committee, Columbia University, 405 Low, Mail Code 4335, 535 West 116th St., New York, NY 10027.

Columbia University takes affirmative action toward equal employment opportunity. Candidates from all backgrounds are encouraged to apply.

POSITIONS OPEN

CHAIR—DEPARTMENT OF MICROBIOLOGY UNIVERSITY OF ALABAMA at Birmingham

The University of Alabama Schools of Medicine and Dentistry are seeking applications and nominations for the endowed position of **MCCAULEY PROFESSOR** and Chair of the Department of Microbiology. The person filling this position will assume the leadership of a strong, mature faculty housed in modern research space. The department's long tradition of research excellence is reflected in its exceptional level of productivity and support. Nonetheless, the new Chair will have an opportunity to expand the department and also play an important role in the development of a campuswide Genetics Center.

Applicants must have a Ph.D., M.D., or equivalent degree; have a strong and well-funded research program in any aspect of microbiology, including immunology, microbial genetics, pathogenesis, or virology; have a commitment to graduate and medical education; and have a record of demonstrated leadership.

A profile of the department and its faculty may be found at the **website: <http://www.microbio.uab.edu>**. The Search Committee, headed by **Richard B. Marchase, Ph.D.**, Chair of Cell Biology, will begin its review of applications on February 1, 2000. Interested applicants should submit a curriculum vitae and the names of three references to:

**Amy Thompson, Director
Administrative Services
University of Alabama School of Medicine
Medical Dean's Office
MEB 310
1530 Third Avenue South
Birmingham, AL 35294-3293**

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

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

Case Western Reserve University School of Medicine

The Department of Physiology and Biophysics at Case Western Reserve University School of Medicine invites applications for **JUNIOR- and/or SENIOR-LEVEL FACULTY** positions. We seek candidates who can build or transfer visible research programs in the areas of ion channel regulation or genetic approaches to membrane proteins. We offer a highly competitive compensation package, ample start-up funds, and state-of-the-art research facilities. Candidates should submit a curriculum vitae, statement of research interests, and the names and addresses of four references to: **Dr. Toni Scarpa, Department of Physiology and Biophysics, 10900 Euclid Avenue, Cleveland, OH 44106-4970**. For more information about the Department, please visit our **website: <http://physiology.cwru.edu>**. *An Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION IN BIOMEDICAL ENGINEERING AT VANDERBILT UNIVERSITY

Vanderbilt University School of Engineering invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level in the Department of Biomedical Engineering. Successful applicants should have expertise in one of the following areas: biomedical optics, cellular bioengineering, or technology-guided therapy, including imaging. Exceptional candidates with expertise in other areas will be considered. Additional information about the department can be found at the **website: <http://www.bme.vanderbilt.edu>**. Interested candidates should send a curriculum vitae and the names of three references to: **Dr. Robert Galloway, Chair of the Search Committee, Department of Biomedical Engineering, P.O. Box 351631, Vanderbilt University, Nashville, TN 37221**. *Vanderbilt University is an Equal Opportunity/Affirmative Action university. Minority and women candidates are urged to apply.*

POSITIONS OPEN

PENN STATE



TENURE-TRACK FACULTY POSITION IN MOLECULAR EVOLUTION PENN STATE

The Department of Biology at The Pennsylvania State University invites applications from outstanding candidates for a tenure-track faculty position at the **ASSISTANT or ASSOCIATE PROFESSOR** level in molecular evolution. We seek a person with expertise in theoretical, statistical, or computational analysis of evolutionary processes at the molecular level. Research areas include but are not limited to mathematical population genetics, phylogenetics, genome and organelle evolution, and bioinformatics. The successful candidate will join an interactive group of researchers in the Institute of Molecular Evolutionary Genetics. Responsibilities will be to establish a vigorous research program, to participate in graduate and undergraduate teaching, and to supervise graduate students. Applicants should submit a curriculum vitae, a brief statement of research plans and teaching interests, and arrange to have three letters of reference sent directly to: **Molecular Evolution Search Committee, Department of Biology, 208 Mueller Laboratory, Box S, The Pennsylvania State University, University Park, PA 16802**. Evaluation of applications will begin on February 1, 2000. *Affirmative Action/Equal Opportunity Employer.*

We are seeking tenure-track faculty at the rank of **ASSISTANT/ASSOCIATE PROFESSOR or PROFESSOR** with active research programs in human molecular genetics, DNA damage and repair, or genetic susceptibility (SNPs, polymorphisms) and disease. These positions are available in the Institute of Chemical Toxicology. Competitive start-up packages are provided, and membership in the Environmental Health Sciences Center in Molecular and Cellular Toxicology with Human Applications, the Comprehensive Cancer Center, and the Center for Molecular Medicine and Genetics provides additional opportunities for professional interactions, pilot project funding, and facility core support. This represents a unique opportunity to enter a growing program in human genetics/genetic susceptibility and molecular epidemiology. Your curriculum vitae should be sent to: **Dr. Mark Hughes, Chair, Search Committee, The Institute of Chemical Toxicology, Wayne State University, 2727 Second Avenue, Room 4000, Detroit, MI 48201-2654**. Information on the Environmental Health Sciences Center and Institute of Chemical Toxicology may be viewed at **website: <http://www.wayne.edu/ehsctr>**. *Wayne State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR OF BIOLOGY

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

POSITIONS OPEN

SENIOR FACULTY POSITION NEUROANATOMY

The Division of Life Sciences at the University of Texas at San Antonio invites applications for the Directorship of the Cajal Neuroscience Research Center (CNRC), a RCMI-funded project, and a tenured position at the **FULL PROFESSOR** level pending budget approval. Required qualifications are a Ph.D. in neuroanatomy or a related area, have private or federal grant funding support and have achieved Associate or Full Professor status or its equivalent. Preferred qualifications are a senior Neurobiologist with a successful research program emphasizing neuroanatomy that will complement existing CNRC faculty interests in aging, biophysics, synaptic plasticity, learning and memory, neurocomputation, and neuron networks and systems. Responsibilities include: teaching in the Division of Life Sciences, with courses offered either at the UTSA Downtown Campus or the Main Campus; research collaboration with the faculty in the Division of Life Sciences; administrative service; and coordination of the establishment of a joint Organized Research Unit between the CNRC and the newly established Specialized Neuroscience Research Program in Minority Institutions Center, funded by NINDS. Set-up funds and laboratory space in the newly constructed Biosciences Building are available. The Division of Life Sciences consists of 24 faculty members and offers a Bachelor's degree in biology, Masters' degrees in biology and biotechnology, and a Doctoral degree in biology with an emphasis in neurobiology. Applicants must submit a letter of application specifying the position of interest; a curriculum vitae; three publications; a research statement; and the names, postal addresses, and telephone numbers of three references. Applications and all required materials must be received with a FAX or postmark date no later than January 15, 2000, to: **Dr. Joe L. Martinez, Jr., Director, Division of Life Sciences, The University of Texas at San Antonio, 6900 North Loop 1604 West, San Antonio, TX 78249**. FAX: 210-458-5658. *UTSA is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply. Applicants who are not U.S. citizens must state current visa and residency status.*

FACULTY POSITIONS FOR FALL 2000 CELL/MOLECULAR BIOLOGY HUMAN ANATOMY/PHYSIOLOGY Anderson University

TENURE-TRACK POSITIONS. Doctorate required. Cell/molecular biology position teaching duties include genetics, cell biology, and general biology. Human anatomy/physiology position teaching duties include human anatomy/physiology, mammalian physiology, pathophysiology, and embryology. Candidates must be willing to work with undergraduate students doing research. Anderson University is a comprehensive institution with a strong liberal arts tradition, affiliated with the Church of God, and seeks faculty who possess a maturing Christian faith and are committed to the mission of Christian higher education. Direct inquiries to: **Dean Blake Janutolo, Anderson University, Anderson, IN 46012-3495** by January 14, 2000. *Affirmative Action/Equal Opportunity Employer.*

Marine Botanist: **TENURE-TRACK POSITION** in Eckerd College marine science and biology programs to begin fall 2000. Ph.D. required, preferably with postdoctoral and teaching experience. Area of specialty flexible, but the successful candidate must have a solid background in organismic botany and be prepared to teach marine and freshwater botany, an upper-level elective in the field of expertise, and develop a research program that involves undergraduates. Participation in the college's value-oriented, interdisciplinary general education program is also expected. Send curriculum vitae, statement of teaching and research interests, transcripts, teaching evaluations, and three letters of reference to: **Bill Szelistowski, Chair of Search Committee, Galbraith Marine Science Laboratory, Eckerd College, 4200 54th Avenue South, St. Petersburg, FL 33711**, by January 31, 2000.

McMaster University Tenure-Track Faculty Position in Molecular Biology

McMaster University, a research-intensive institution and leading centre for biomedical and biological research, invites applications from outstanding scientists for a tenure-track position in molecular biology at the assistant professor level. This position is tenable in the Department of Biochemistry; new faculty will become members of the Institute for Molecular Biology and Biotechnology.

We request applications from individuals who employ model organisms and modern approaches in cell and molecular biology to study eukaryotic gene structure, function, expression, and regulation. Their research areas should complement current strengths and interests at McMaster University which include molecular, genetic, genomic, proteomic, and structural approaches to fundamental issues in molecular and cell biology, development, and the molecular basis of disease.

Candidates must hold a Ph.D. in Biochemistry or a closely related field from an accredited university, possess at least two years of postdoctoral experience, and have a proven record of research excellence in their area of expertise.

The successful applicant will be expected to establish and maintain a vigorous, externally funded research program and contribute to the education of undergraduate and graduate students.

Applicants should submit a curriculum vitae, a statement of research interests and future plans and should arrange for three letters of recommendation to be sent to:

Dr. John Hassell
Molecular Biology Search
Committee
Institute for Molecular Biology and
Biotechnology, McMaster University
1280 Main Street West
Hamilton, Ontario L8S 4K1

Closing date of applications is January 30, 2000.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. McMaster University has an employment equity programme, and encourages applications from all qualified candidates, including women, aboriginal people, people with disabilities and visible minorities.

Enhancing People's Lives *Matters*

At **Pharmacia & Upjohn**, we wouldn't be a leader in the highly competitive pharmaceutical industry if we didn't know what really matters – improving wellness and the quality of life for people around the globe. That's why our team of dedicated scientists shares one strong commitment: *develop pharmaceuticals that will continue to fulfill the individual health care needs and enhance the lives of the people we serve.* If you share in our philosophy and feel that you can meet our high expectations, join the team at **Pharmacia & Upjohn**. Our research philosophy values creativity, scientific rigor, teamwork, and personal/professional satisfaction. We invite you to be an integral member of our scientific team. The following challenging opportunities are now available in our **Kalamazoo, Michigan** facility:

PhD Cardiac Electrophysiologist • Position #900102

The PhD level Scientist we select will evaluate the electrophysiological actions of novel compounds on cardiac cells *in vitro* as well as perform and supervise action potential studies using cardiac tissues or heart slices. A PhD in Biology or a related discipline combined with 3 or more years of relevant laboratory experience are required.

BS/MS Cardiac Electrophysiologist • Position #990283

The MS/BS level Scientists we select will evaluate the electrophysiological actions of novel compounds on cardiac cells *in vitro* as well as perform action potential studies using cardiac tissues or heart slices. A BS or MS in Biology or a related discipline combined with 2-3 years of relevant laboratory experience are required.

These team players, for both the PhD and BS/MS positions, will be integral members of a fast-paced drug candidate evaluation program. Experience with whole cell or single channel patch clamp studies and/or methods of high throughput screening would be beneficial. Strong computer skills, including familiarity with computer-based data acquisition and analysis systems, are desired.

Your dedication and desire to help others can make a real difference. **Apply online at www.pnu.com** or send your resumes, **indicating appropriate Position #**, to: **Pharmacia & Upjohn, 7000 Portage Rd., 5003-024-001, Attn: Human Resources, Kalamazoo, MI 49001.** An equal opportunity employer, we value a diverse combination of ideas, perspectives, and cultures.



Pharmacia & Upjohn

Each Person Matters

Each Patient Matters

Scientist, High Throughput Screening

Synaptic Pharmaceutical Corporation is a leader in the discovery and validation of novel G protein-coupled receptor (GPCR) targets for drug therapy. Join our multi-disciplinary team of scientists in a stimulating research environment, which offers distinct opportunities to leverage your expertise.

The Lead Discovery group is seeking a candidate with a Ph.D. in Molecular Pharmacology, Biochemistry or related discipline with 2 to 4 years experience in the area of G-protein coupled receptors. This position requires skills in HTS assay development and execution, automation expertise, and familiarity with data management. The ability to communicate and effectively interact with a multi-disciplinary team is essential. Previous experience in the pharmaceutical industry is highly desirable.

Your rewards will include a competitive salary and an attractive benefits package, including a 401(k) and stock option plan. For immediate consideration, please forward your resume to: **Synaptic Pharmaceutical Corporation, Job Code 269, 215 College Road,**

Synaptic
Pharmaceutical Corporation

**Paramus,
NJ 07652.
EOE M/F/D/V**

Tenure Track Position at National Institute on Aging National Institutes of Health

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

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

*Applications must be postmarked by
January 10, 2000*

NIH is an Equal Opportunity Employer

POSITIONS OPEN

ENVIROMENTAL/CONSERVATION SCIENCE IN LATIN AMERICA

Tulane's Stone Center for Latin American Studies; Department of Ecology, Evolution, and Organismal Biology; and Department of Geology invite applications for a tenure-track **ASSISTANT PROFESSOR** position (website: http://www.tulane.edu/~ceob/faculty_search/las-search.html) to begin July 1, 2000. We seek applicants with broad, multidisciplinary training in environmental and/or conservation science who will develop interdisciplinary research and courses focusing on tropical environments in Latin America. Successful candidates must have completed their Ph.D. by the start date; would be expected to develop a vigorous, externally funded research program; and have a strong commitment to undergraduate and graduate teaching. Applicants should send a letter of application, statement of research and teaching interests, curriculum vitae, and contact information for three references to: **LAS Search, Department of Geology, Tulane University, New Orleans, LA 70118**. Review of applications will begin January 31, 2000, and the search will remain open until the position is filled. *Tulane University is an Affirmative Action/Equal Opportunity Employer committed to excellence through diversity; women and minorities are encouraged to apply.*

MANAGER, CHEMISTRY AND MICROBIOLOGY

Kemin Industries is a fast-growing, worldwide manufacturer of specialty ingredients for the agricultural industry and is seeking immediately a qualified individual to manage the chemistry and microbiology research sections. The successful candidate will be part of a highly dynamic research and development group and will report to the Director for Research and Development. The successful candidate will supervise basic and applied chemistry and microbiology research. The position will focus on the initiation and management of novel product development, as well as strategic planning and budgeting. A Ph.D. degree in chemistry or biochemistry and five years of supervisory experience in an industrial position is required. Additional experience in microbiology and/or agriculture is highly desirable. Kemin Industries offers excellent benefits, including continual professional development. Job offer is conditional upon passing a medical examination, including a drug screen. Please send applications to: **Jo Cook, P.O. Box 70, Des Moines, IA 50301**. For more information about Kemin Industries, visit our website: www.Kemin.com. *Kemin offers a smoke-free environment and is an Equal Opportunity Employer.*

NONTENURE-TRACK FACULTY POSITION IN MOLECULAR OPHTHALMOLOGY Duke University Medical Center

Applications are invited for a nontenure-track position as **RESEARCH ASSISTANT PROFESSOR** in the Department of Ophthalmology at Duke University Medical Center. Appointment will initially be made on a two-year basis with a possibility of renewal. The successful candidate should hold M.D., Ph.D., or M.D./Ph.D. degree and should have a background in ocular molecular biology and a track record of established research related to glaucoma, as well as research experience in differential gene expression studies pertaining to the eye. Expertise in gene discovery, library screening, hybridization to gene arrays, and computer database analysis is required. Interested individuals should send a detailed curriculum vitae including description of research, recent reprints, and names of three references to: **Terete Borras, Ph.D., Associate Professor, Department of Ophthalmology, Box 3802, Duke University Medical Center, Durham, NC 27710**. *Duke University Medical Center is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and minorities.*

POSITIONS OPEN

TENURE-TRACK FACULTY POSITION STANFORD UNIVERSITY Geological and Environmental Sciences

We seek an outstanding scientist to establish a research program in any area of isotope geochemistry at Stanford and to codirect the Stanford-U.S. Geological Survey Ion Microprobe Laboratory. The successful candidate will teach at the undergraduate and graduate levels and collaborate with USGS scientists in the management, development, and funding of the Laboratory. We invite applications from candidates whose research interests may broadly be defined as the application of isotope geochemistry to problems in Earth, environmental, and/or planetary sciences. Applicants at the **ASSISTANT PROFESSOR** level are particularly sought; however, exceptional candidates at a more senior career level will be considered. The Stanford-USGS SHRIMP-RG ion microprobe is equipped with positive and negative ion sources and is now routinely used for research in geochronology, geochemistry, and cosmochemistry. Associated facilities include a TIMS laboratory (with ion counting); an electron microprobe; instrumentation for thermochronology by $^{40}\text{Ar}/^{39}\text{Ar}$; ($\text{U}+\text{Th}$)/He and fission track methods; stable isotope mass spectrometers; ICP-MS, ICP-AES, and GC-MS instruments; and support facilities such as clean laboratories and SEM/CL. The Department has collaborative research programs with nearby institutions, including the Stanford Synchrotron Radiation Laboratory, the U.S. Geological Survey, the Monterey Bay Aquarium Research Institute, and the Lawrence Livermore National Laboratory. Applications should include a curriculum vitae, a statement outlining research and teaching interests, and the names and addresses (including e-mail addresses) of three potential references. We will begin reviewing applications January 18, 2000. Deadline for receipt of applications is February 8, 2000. Applications should be addressed to:

Professor Robert B. Dunbar
Chair, Faculty Search Committee
Department of Geological and
Environmental Sciences
Stanford University
Stanford, CA 94305-2115
E-mail: dunbar@stanford.edu
Website: <http://pangea.stanford.edu>

Stanford University has a strong commitment to the principle of diversity. In that spirit, we particularly encourage applications from women, members of ethnic minorities, and individuals with disabilities.

DEPARTMENT OF NUTRITION CASE WESTERN RESERVE UNIVERSITY

We seek a **FACULTY** to conduct basic and clinical investigations in nutritional biochemistry and metabolism using stable isotopes (mass spectrometry, NMR). We are particularly interested in the intra- and interorgan metabolism of nutrients and in the development of new probes for investigating these processes. The appointee will develop independently funded research programs and participate in the teaching and training of graduate and postgraduate students. Send curriculum vitae, representative reprints, outline of research program, and three letters of reference to: **Dr. Henri Brunengraber, Chair, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106-4906**. *CWRU is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

UNIVERSITY OF FLORIDA

Seeks an **ASSISTANT PROFESSOR**, tenure track, for the Department of Medicine, Division of Nephrology. M.D. or Ph.D., significant postdoctoral training, and potential to develop and maintain a vigorous, extramurally funded research program. Salary and benefits commensurate with experience. Recruiting deadline December 17, 1999. Anticipated starting date December 31, 1999. Please respond with curriculum vitae to: **Monham K. Raizada, Ph.D., Professor, Department of Physiology, Box 100274, Gainesville, FL 32610-0274**. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF MEDICINE DIVISION OF ENDOCRINOLOGY AND METABOLISM University of Louisville

The Division of Endocrinology and Metabolism at the University of Louisville School of Medicine is seeking a highly qualified applicant with a Ph.D. in molecular biology/biochemistry/cell biology with at least two years of postdoctoral experience to work on the regulation of gonadotropin subunit gene expression. This is a nontenured faculty appointment with a secondary appointment in the Department of Biochemistry/Molecular Biology. Experience with cell culture, PCR, immunocytochemistry, and *in situ* hybridization is desirable. A generous start-up package is available, following which the applicant will be expected to acquire extramural funding. Send curriculum vitae; statement of research interests; and the names, addresses, and telephone numbers of three scientists for letters of recommendation to: **Stephen J. Winters, M.D., Professor and Chief, Division of Endocrinology and Metabolism, University of Louisville, 530 South Jackson Street, ACB-Third Floor, Louisville, KY 40292**. *The University of Louisville is an Affirmative Action/Equal Opportunity University.*

RESEARCH SCIENTIST II HUMAN NEUROCHEMICAL PATHOLOGY LAB Centre for Addiction and Mental Health

You will establish an independently funded research program on discovery/development of novel pharmacological agents for neuropsychiatric disorders, including drug addiction. Current interests include but are not limited to lipid and estrogen-based therapies. Applicants will have Ph.D. degree with relevant postdoctoral experience, published extensively in leading peer-reviewed journals, and demonstrated ability to attract external funding. Submit curriculum vitae with cover letter, which must contain statement of past progress, future research objectives, and three-year research plan with key milestones and timetable; also copies of your three most important publications to: **Human Resources, CAMH, 33 Russell Street, Toronto, ON M5S 2S1 Canada**. FAX: 416-595-6945 and cite file #99248-Stephen Kish.

ANATOMY AND CELL BIOLOGY

The Department of Anatomy and Cell Biology, Indiana University School of Medicine, seeks a funded **INVESTIGATOR** with expertise in cell/molecular biology for a tenure-track position (at any level). Postdoctoral experience required. The individual should be able to coordinate her/his research program with an existing area of focus in the University (e.g., neurobiology, skeletal biology, cancer, or diabetes). Teaching area is open. Send letter of interest, statement of research interests and goals, curriculum vitae, and names and addresses of three references to: **Dr. Richard G. Peterson, Department of Anatomy and Cell Biology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120**. E-mail: peterston@anatomy.iupui.edu. The review process will begin immediately and continue until the position is filled. *Indiana University is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Disabled.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY OR BIOPHYSICAL CHEMISTRY. The University of Mississippi Department of Chemistry invites applications for a tenure-track faculty position. Applicants are required to have a Ph.D., postdoctoral experience, the ability to establish a nationally competitive research program, and a commitment to undergraduate and graduate teaching excellence. A curriculum vitae, brief statement of research plans, and three letters of recommendation should be sent to: **Prof. Charles Hussey, Chair, Department of Chemistry, The University of Mississippi, University, MS 38677**. Review of applications will continue through January 14, 2000. *The University of Mississippi is an Affirmative Action Employer and actively seeks applications from women and minorities.*

**Investigator/Director
of Hemostasis and Thrombosis Laboratory
Oregon Health Sciences University**

The Department of Pathology at Oregon Health Sciences University (OHSU) is seeking a nationally recognized funded investigator who will direct the Clinical Hemostasis and Thrombosis (H&T) Laboratory. Candidates should have a record of funded research in hemostasis and thrombosis and the experience necessary to direct a hemostasis and thrombosis laboratory. OHSU offers excellent opportunities for basic and clinical research collaborations in H&T. This individual will be provided with ample time and opportunity to pursue a research program and will be expected to participate in the teaching activities of the Department. The H&T Laboratory provides diagnostic and consultative services for OHSU clinical programs and reference support to the community. Applicants should be Board certified in Clinical Pathology or Internal Medicine and preferably have subspecialty certification in Hematology by either Board. Additional information may be found at the recruitment web site (www.ohsu.edu/som-Pathology).

Applications and inquiries should be directed to **Donald C. Houghton MD, Chair**, or to **James D. MacLowry, MD, Vice Chair and Medical Director of Laboratories, Pathology L 113, Oregon Health Sciences University, 3181 SW Sam Jackson Park Rd, Portland, OR 97201**. Review of applications will begin as soon as possible.

OHSU is an equal opportunity, affirmative action employer.

**FACULTY POSITIONS
DEPARTMENT OF HUMAN GENETICS**

A new Department of Human Genetics has been established at the University of Chicago, chaired by David H. Ledbetter, Ph.D. Strengths of the university genetics community include outstanding programs in cancer genetics, molecular cytogenetics, complex disease analysis, evolution and population genetics. We are recruiting tenure track faculty in broad areas of human genetics research, including (*but not limited to*) neurogenetics, cancer genetics, chromosome structure/function, and computational or experimental genomics. State-of-the-art research space is located in the new Institute for Molecular Medicine and generous start-up funds are available. Applicants must have a demonstrated ability to develop an independently funded research program of the highest caliber. Positions are open to Ph.D., M.D., or M.D./Ph.D. candidates. Individuals with ABMG board certification or eligibility are encouraged to apply. Although the search is primarily aimed at Assistant Professor level scientists, appointments at other levels, including senior appointments will be considered.

As we have several ads running concurrently, please indicate junior faculty applicant in the e-mail "subject" line by submitting a letter of interest, CV, a research statement, and the names and addresses of three references electronically (as Word or WordPerfect attachments) to:

Human Genetics Search Committee
recruit@genetics.bsd.uchicago.edu



THE UNIVERSITY OF CHICAGO

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

<http://www.genes.uchicago.edu>

**Assistant/Associate
PROFESSORS of CHEMISTRY
PHYSICAL CHEMISTRY and BIOCHEMISTRY**
Tenure Track Faculty Positions @ Marist College

The Marist College School of Science invites applications for two tenure track positions in the Department of Chemistry, starting in August 2000. Qualified candidates will have completed a Ph.D. degree, have strong interest in undergraduate education, and have a commitment to excellence and innovation in teaching. We are especially interested in candidates with previous college-level teaching experience, and those who incorporate instructional technology into the teaching-learning process. Candidates who wish to be considered at the Associate Professor level should provide evidence of teaching effectiveness and scholarly productivity. For one position we seek a physical chemist who can also teach advanced inorganic chemistry courses. For the second position, candidates should possess a Ph.D. in biochemistry and should also be able to teach organic chemistry. For both positions, instructional assignments in general chemistry, establishment of a research program involving undergraduates, academic advising, and committee service are also expected.

Marist College is a comprehensive, independent, liberal arts college centrally located in the scenic and historic Hudson Valley, less than two hours north of New York City. Enrolling about 3600 full-time undergraduates, the College opened a state-of-the-art library in November 1999. Marist has been recognized by CAUSE as one of the top colleges and universities in the nation for its innovative use of technology and excellence in campus networking. The Chemistry curriculum offers B.S. degrees in Chemistry and in Biochemistry (both of which are approved by the American Chemical Society), and the Department maintains modern instrumentation in spacious laboratories. For additional information about the College, the School of Science, and the Chemistry Department, please visit our web site at www.marist.edu/science.

Review of applications will begin January 10, 2000, and will continue until the positions are filled. Please submit a cover letter, curriculum vitae, statement of teaching philosophy and goals, short description of research plans, copies of undergraduate and graduate transcripts, and three letters of recommendation sent directly by your references to:

MARIST
C O L L E G E

**Dean Michael Tannenbaum,
MPO-905/SC,
Marist College,
Poughkeepsie, NY 12601-1387**

An Equal Opportunity/Affirmative Action Employer



**CELL AND
DEVELOPMENTAL
BIOLOGY GROUP**

Faculty Positions in

- ✦ **Molecular Mechanisms** ✦
- ✦ **Developmental Biology** ✦

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

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

See:

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

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

POSITIONS OPEN

VICE PRESIDENT RESEARCH, DEVELOPMENT, AND PROGRAM MANAGEMENT Advanced Aquaculture and Marine Biotechnology The Oceanic Institute, Hawaii

The Oceanic Institute, a nonprofit aquaculture organization founded in 1960 and located in Waimanalo, Hawaii, is seeking a professional and energetic leader to maintain and improve the quality, timeliness, and integration of the planning, execution, analysis, and publication of multiple applied aquaculture and biotechnology research programs. Directs, expands, and professionally develops a staff of 100, including 30 Ph.D. researchers with specialties in biological oceanography; animal behavior; nutrition; feed processing and formulation; genetics; microbial ecology; microbiology; animal health; animal husbandry; live feeds; maturation/reproduction; closed/open land and offshore aquaculture systems; waste and byproduct recycle; waste treatment; environmental impact and remediation; coastal zone processes; and physical, chemical, and analytical laboratories.

The vice president serves as the principal scientific spokesperson for and representative of the Oceanic Institute in local, national, and international forums. The vice president provides concepts, visions, contacts, strategies, and technical support for essential ongoing and future business development activities in the private, government, and commercial sectors, both nationally and internationally.

The position requires an earned Ph.D. in a relevant scientific discipline with a minimum of 10 years of experience; a long-term reputation as a leader in directing and managing applied research; an in-depth knowledge and credibility in aquatic biotechnology and/or aquaculture; a proven leader in developing integrated scientific teams and effective in attracting new staff and in expanding the research funding base through innovative proposals, partnerships, and competitive grants. Understanding regulations governing nonprofit research organizations an asset.

Résumé and curriculum vitae, including at least three references, should be submitted to: **The Oceanic Institute, Attention: Human Resources, 41-202 Kalanianaʻole Highway, Waimanalo, HI 96795 U.S.A.** no later than January 24, 2000. Additional information about the Oceanic Institute can be found at **website: www.oceanicinstitute.org**. Specific questions may be forwarded to **e-mail: csiu@teligentmail.com** or **FAXED to 808-259-5971**. Full benefits program. Salary consistent with qualifications. Position available mid-2000.

Conservation biology. The Department of Biological Sciences at the University of New Orleans invites applications for an **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants specializing in any area of conservation biology including but not limited to ecology, genetics, reproductive biology, or management will be considered. The successful applicant will have a Ph.D.; postdoctoral experience; and will be expected to develop a strong, externally funded research program, direct students in the new Ph.D. program in conservation biology, and teach at the graduate and undergraduate levels. The University is affiliated with the Audubon Institute Center for Research of Endangered Species and the Louisiana Universities Marine Consortium, and opportunities for research at and collaboration with these institutions are available. For more information about the department, see our **website: <http://www.uno.edu/~bios>**. Applicants should submit a curriculum vitae, statements of research and teaching interests, and contact information for three references to: **Conservation Biology Search Committee, Department of Biological Sciences, University of New Orleans, New Orleans, LA 70148**. Questions may be directed to **e-mail: jhoward@uno.edu**. Review of applications will begin January 31, 2000, and will continue until the position is filled. *The University of New Orleans is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

BIOINFORMATICS SCIENTIST

InformMax, Inc., is the leading provider of bioinformatics software to both academia and industry. We are offering an exciting opportunity for a talented Scientist to take charge of research and development partnerships with scientists at customer sites. This person will collaborate to develop and implement novel data mining and analysis protocols in the areas of sequence and gene expression analysis. The position offers tremendous opportunity for career growth and terrific exposure to the bioinformatics field. Requirements include a Ph.D. in molecular biology or a related field, more than two years of postdoctoral experience, and demonstrated ability to solve biological problems using computer-based approaches. Familiarity with UNIX and a programming or scripting language is preferred.

For immediate consideration, please send your cover letter and résumé to: **Peter Covitz, InformMax, Inc., 6010 Executive Boulevard, North Bethesda, MD 20852. FAX: 240-223-0029; e-mail: peter@informaxinc.com.**

CHEMISTRY AND PHYSICS ASSISTANT PROFESSOR/BIOCHEMISTRY Southeastern Louisiana University

Southeastern Louisiana University is seeking applicants for an Assistant Professor of Biochemistry in the Department of Chemistry and Physics; available August 2000. Candidates should have both undergraduate degrees and Ph.D. in chemistry from an accredited university; have a strong commitment to undergraduate teaching not only in their area of specialization but also in introductory and service courses; the ability to acquire graduate faculty status; and be prepared to develop a vigorous, independent research program which will attract outside funding. Preference may be given to candidates with industrial experience and an interest in teaching courses in an M.S. in Applied Science. Position will remain open until a qualified candidate is identified. Salary is commensurate with experience and qualifications. Applicants must submit the following: application letter, curriculum vitae listing all publications, brief statement regarding teaching experience and philosophy, brief statement regarding research interests, and copies of ALL transcripts (originals required upon employment) to: **Dr. Linda Munchausen, Department of Chemistry and Physics, SLU 10878, Hammond, LA 70402.** *SLU is an Affirmative Action/Americans With Disabilities Act/Equal Employment Opportunity Employer.*

CHAIR DEPARTMENT OF BIOLOGICAL SCIENCES University of New Orleans

The Department of Biological Sciences is seeking a Chair at the rank of **PROFESSOR** to lead the development of a new Ph.D. program in conservation biology while maintaining the Department's current strength in undergraduate- and Master's-level education. The successful candidate will be expected to have prior administrative experience, establish a funded research program, and supervise doctoral students. The area of research specialization is open. Preference will be given to candidates with research specialties in areas related to the field of conservation biology. For more information about the department, see our **website: <http://www.uno.edu/~bios>**. Send a curriculum vitae, names and addresses of five references, a statement of administrative philosophy, and statement of research interests to: **Dr. James S. Rogers, Department of Biological Sciences, University of New Orleans, New Orleans, LA 70148**. Questions may be directed to **e-mail: jsrogers@uno.edu**. Review of applications will begin January 30, 2000, and will continue until the position is filled. *The University of New Orleans is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CARNEGIE INSTITUTION OF WASHINGTON DEPARTMENT OF PLANT BIOLOGY Stanford, California

The Carnegie Department of Plant Biology is seeking to fill several **FACULTY POSITIONS** in the area of plant cell and molecular biology. The successful candidates are expected to have a Ph.D. and demonstrated ability to carry out independent and innovative research. The institutional philosophy is to encourage scientific discoveries by providing outstanding individuals with the freedom and long-term support to explore the frontiers of science. Carnegie faculty enjoy complete freedom with respect to the choice of research topic and have no obligatory teaching or administrative responsibilities. Opportunities exist for participation in graduate and undergraduate education through a concurrent courtesy appointment in the Department of Biological Sciences at Stanford University. Please send a curriculum vitae, statement of research interests, and three letters of reference by January 15, 2000, to: **Chris Somerville, Carnegie Institution, 260 Panama Street, Stanford, CA 94305.** *The Carnegie Institution is an Affirmative Action/Equal Opportunity Employer.*

BASIC MUSCULOSKELETAL SCIENTIST

The Department of Orthopaedics at the New Jersey Medical School invites applications for a tenure-track faculty position. Applicants with research interests in all areas of orthopaedic science will be encouraged. We are especially interested in applicants with research programs in tissue engineering and the study of cell material interactions. Applicants must have a Ph.D. or its equivalent and at least two years of postdoctoral experience. Currently, basic research efforts in the Department focus on the study of biomaterials for skeletal repair, the molecular biology and biomechanics of bone healing, and the molecular analysis of skeletal development. Deadline for applications is January 3, 2000. Applicants should send their curriculum vitae, the names of three references, and a statement of research interests to: **Fred F. Behrens, M.D., Chairman, Department of Orthopaedics, UMDNJ-New Jersey Medical School, Doctors Office Center, Suite 5200, Newark, NJ 07103.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Handicapped/Veterans, and is a member of the University Health System of New Jersey.*

University of Florida Jacksonville campus has full-time, tenure-track position as **ASSISTANT PROFESSOR** in division of Hematology/Oncology. Duties include teaching, research, and patient care. Board-certified in internal medicine and Board-certified/Board-eligible in hematology required. Salary negotiable. Application deadline December 27, 1999, with start of March 1, 2000. Send curriculum vitae to: **Search Chair, Troy H. Guthrie, M.D., Shands Jacksonville, 653-1 West Eighth Street, Third Floor, Jacksonville, FL 32209.** *Affirmative Action/Equal Employment Opportunity.*

ANIMAL PHYSIOLOGIST. Clarion University of Pennsylvania. Ph.D. in a biological science is required by August 31, 2000. Teaching and/or postdoctoral experience desirable. The successful candidate must have a commitment to and demonstration of excellence in teaching and must successfully complete an interview. Screening of applications begins January 2000. Please view the complete ad and instructions on how to apply at **website: www.clarion.edu/admin/humanresources/emp_faculty.htm**. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW

NIH-funded. Immediately available to study influence of nitric oxide in inflammatory lung injury, specifically modulation of CAM expression. Research experience in cell and molecular biology required. Send curriculum vitae and names of three references to: **Hector Gutierrez, M.D., Children's Hospital Oakland Research Institute, Oakland, CA. FAX: 510-450-7910; e-mail: hgutierrez@chori.org.**

Faculty Positions in Cancer Research LSU Health Sciences Center

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

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

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

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

NATIONAL UNIVERSITY OF SINGAPORE DEPARTMENT OF PHARMACOLOGY

Applications are invited for teaching appointments in the Department of Pharmacology.

Candidates should have either a degree in Pharmacology and a PhD degree or an approved basic medical / pharmacy degree with a recognised higher academic/professional qualification. Preference will be given to candidates with teaching and research experience. A proven track record of high calibre, self-directed research will be an advantage.

The Department of Pharmacology, established about 40 years ago, has teaching commitments to medical, dental, pharmacy and science students and has an active postgraduate research programme. Although staff members have been able to actively develop research on a wide front, the major areas of focus are: Pharmacogenetics, Clinical Pharmacokinetics (including Population PK methods), Preclinical Toxicology, Neuropharmacology (particularly with respect to electrophysiology, sleep/circadian clock, learning, anxiety/fear and neuroprotection), and processes related to Signal Transduction, Immunomodulation and Antimicrobial Drug Resistance. The Department has collaborative links with research institutes within NUS, with government departments and private industries. Some staff members are clinical consultants at the National University Hospital while others hold adjunct/joint appointments in the Bioscience Centre and Defence Medical Research Institute. The Department has access to a wide range of high-end specialized facilities to support research in basic and clinical pharmacology.

The successful candidate/s should have a strong track record in attracting research funding and is expected to make an immediate contribution to undergraduate teaching of medical, dental, pharmacy and science students.

Remuneration will be commensurate with the candidates' qualifications, experience and appointment offered. Leave and medical benefits will be provided.

Further enquiries and applications may be directed to:

Professor Edmund Lee
Head, Department of Pharmacology
National University of Singapore
10 Kent Ridge Crescent
Singapore 119260
Fax: +65 7730579
E-mail: phchead@nus.edu.sg



Visit our web-sites at <http://www.med.nus.edu.sg/phar/welcome.htm> for more information on the department, or at <http://www.nus.edu.sg/NUSinfo/Appoint/med-pharm.html> for links to information on the Department, the University, terms and conditions of service, and the application form.

Only shortlisted candidates will be notified.

MAINE MEDICAL CENTER

RESEARCH ASSOCIATE FOR CONFOCAL MICROSCOPY FACILITY

Center for Molecular Medicine
Maine Medical Center Research Institute
South Portland, Maine

The Center's major research focus is on the molecular mechanisms of human diseases of the cardiovascular system, cancer, and bone and mineral metabolism. Applications are invited from candidates with previous work experience with confocal microscopy and additional background in cell biology.

Interested candidates should send a curriculum vitae and the names, addresses and telephone numbers of three references to: **Center for Molecular Medicine, Maine Medical Center Research Institute, Job Code: A129SM, 125 John Roberts Rd., Suite 12, South Portland, ME 04106, Attn: Research Associate Search.** Visit our website at: <http://zappa.mmcni.mmc.org>.



Maine Medical Center

We are an equal opportunity employer strengthened by the diversity of our professional community.

FELLOWSHIPS

DAAD German Academic Exchange Service GRANTS FOR RESEARCH IN GERMANY Open to all fields

Research Grants for Recent Ph.D.s and Ph.D. Candidates

Seeking applicants with well-defined research projects who need to carry out research at libraries, archives, institutes or laboratories in Germany. In general, Ph.D.s (up to two years after degree) not older than 35 and Ph.D. candidates not older than 32 may apply.

Funding will be provided for **one to six months during June-Dec., 2000**

Study Visit Research Grants for Faculty

Seeking applicants with well-defined research projects who need to carry out research at universities, laboratories and other institutions in Germany. At least two years of teaching and/or research experience after Ph.D. or equivalent, and a strong publication and research record in the proposed field are required.

Funding will be provided for **one to three months during June-Dec., 2000**

Application deadline for both programs is February 1, 2000

daadny@daad.org

<http://www.daad.org>

(212) 758-3223

POSITIONS OPEN

ASSISTANT PROFESSOR STANFORD UNIVERSITY SCHOOL OF MEDICINE Division of Infectious Diseases and Geographic Medicine

Stanford University is seeking applications for a tenure-track position at the Assistant Professor level. The successful applicant will be expected to conduct research in one of two areas: functional genomics of infectious diseases or HIV immunology and vaccine development. The successful candidate should have demonstrated both a record of research accomplishment and an ability to attain external funding. In addition, the applicant should be prepared to participate in the Infectious Diseases clinical activities. Candidates must be Board-certified in infectious diseases and internal medicine. Qualified applicants should submit a curriculum vitae and names of three references to: **Julie Parsonnet, M.D., Chief, Division of Infectious Diseases and Geographic Medicine, Room S156, Stanford Medical School, Stanford, CA 94305-5107.** Our medical school is committed to increasing representation of women and members of minority groups among its faculty and particularly encourages applications from such candidates.

Pharmacology faculty position: A full-time position at the **ASSISTANT or ASSOCIATE PROFESSOR** level is available in the Department of Pharmacology of the College of Medical Sciences at Nova Southeastern University. Responsibilities include participation in team-taught courses to medical, dental, optometry, and physician assistant students. The position requires a Ph.D. in pharmacology or an M.D. Individuals with teaching experience or willingness to teach in multiple areas of pharmacology will be given special consideration. Although primarily a teaching position, opportunities for research do exist. Salaries are competitive and dependent upon qualifications. Fringe benefits are generous. The College of Medical Sciences is located in the new Health Professions Division facility on the Fort Lauderdale campus. Position available immediately pending approval of the Board of Trustees. Please send a letter of interest; curriculum vitae; copies of graduate transcripts; and the names, addresses, and telephone numbers of three professional references to: **(HLF) Nova Southeastern University, Office of Human Resources, 3301 College Avenue, Ft. Lauderdale, FL 33314.** E-mail: in MS Word or Word/Note Pad format nsujobs@nsu.nova.edu. Affirmative Action/Equal Opportunity Employer.

The Forage Biotechnology Group at the Noble Foundation seeks an **APPLIED LEGUME GENETICIST**. Conduct a program to identify useful genes, taking advantage of access to the *M. truncatula* functional genomics program in Plant Biology Division. Incorporate such genes as elite alfalfa germplasm for eventual variety release. Conduct a breeding program to develop forage legumes for the southern Great Plains. Ph.D. in appropriate area of plant science plus experience in plant breeding. Salary commensurate with qualifications. Health, retirement benefits provided. Send letter of application, résumé, and arrange for three letters of reference to be sent to: **Attn.: Applied Legume Geneticist, Human Resources, Noble Foundation, P.O. Box 2180, Ardmore, OK 73401.**

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for research related to diseases of the skeleton, including osteoporosis, osteopetrosis, and rheumatoid arthritis in the Division of Basic Medical Sciences at the Northeastern Ohio Universities College of Medicine (NEOUCOM). Applicants must have experience in cell and molecular biology and animal models of bone disease. Send curriculum vitae and details of three references by January 14, 2000, to: **Human Resources Department, Northeastern Ohio Universities College of Medicine (NEOUCOM), P.O. Box 95, Rootstown, OH 44272-0095.** NEOUCOM is an Equal Employment Opportunity/Affirmative Action Educator and Employer.

POSITIONS OPEN

NOVARTIS

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

STAFF SCIENTIST, IMMUNOLOGY

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

POSTDOCTORAL FELLOW STEM CELL BIOLOGY

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

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

Arcaris, Inc., is a biotechnology company located in Salt Lake City. We have developed novel methods for identifying pharmaceutical targets for cancer and other diseases. We are currently recruiting **RESEARCH ASSISTANTS** with a B.S. or M.S. in a scientific discipline with more than one year of previous laboratory work experience. We are interested in candidates with strong molecular biology skills and experience in: (1) mammalian cell culture; (2) cancer; (3) neurodegeneration and plasticity; (4) *Arabidopsis*, *Agrobacterium*-mediated transformation, or plant cell suspension culture; (5) mammalian viruses; and (6) cDNA library construction. For specific information regarding positions available, please go to **website: www.arcaris.com**. Please mail cover letter (specifying position you are applying for) and résumé to: **Human Resources, 615 Arapen Drive, Suite 300, Salt Lake City, UT 84108. FAX: 801-303-0351; e-mail: hr@arcaris.com.**

POSTDOCTORAL POSITIONS DIABETES-ACCELERATED ATHEROSCLEROSIS University of Washington

Two positions available immediately to study diabetes-accelerated atherosclerosis. The projects will make use of new animal models of the disease as well as isolated vascular cells for studies of growth factors and signal transduction pathways. Individuals with expertise in vascular biology and/or studies of monocytes are particularly encouraged to apply. Send curriculum vitae, brief description of research experience and interests, and names of three references to: **Karin Bornfeldt, Ph.D., Department of Pathology, University of Washington School of Medicine, Box 357470, Seattle, WA 98195-7470. FAX: 206-543-3644; e-mail: bornf@u.washington.edu.**

POSITIONS OPEN

DIRECTOR, GREAT LAKES INSTITUTE FOR ENVIRONMENTAL RESEARCH

The Great Lakes Institute for Environmental Research (GLIER) is dedicated to interdisciplinary, collaborative environmental research. Now housed in new state-of-the-art laboratory facilities, GLIER is introducing new graduate programs and recruiting five new faculty this year. The successful candidate will have an established international reputation in an appropriate field of environmental science or engineering; qualifications permitting a tenured faculty appointment at the University; superior administrative and interpersonal skills; and the desire and energy to build GLIER into a broadly based, internationally recognized research institute that fulfills the University's goal of excellence in environmental studies. Appointment as **DIRECTOR** will be for a five-year term, renewable once. This is a significant opportunity for the right individual. Further information concerning GLIER, the current faculty search, and the University of Windsor is at **website: <http://www.uwindsor.ca/glier/>**.

Submit current curriculum vitae, copies of three recent research publications, a statement of your vision for GLIER, and the names of three references to: **Dr. Peter F. Sale, Director, Great Lakes Institute for Environmental Research, University of Windsor, Windsor, ON N9B 3P4 Canada. Telephone: 519-253-3000, ext. 2732; FAX: 519-971-3616; e-mail: duroch6@uwindsor.ca.** The University of Windsor is committed to equity and diversity in the workplace and welcomes applications from aboriginal peoples, persons with disabilities, and members of visible minorities. Applications from women are particularly encouraged. In accordance with Canadian immigration standards, priority will be given to Canadian citizens and permanent residents of Canada.

FACULTY POSITION SIGNAL TRANSDUCTION

The Department of Molecular Biosciences at the University of Kansas invites applicants for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. The department is undergoing major expansion and this year seeks candidates with a demonstrated ability to carry out innovative research in the general area of signal transduction. All subdisciplines of this field will be considered, including biochemistry/structural biology, cell and developmental biology, immunology/microbiology, and neurobiology. The candidate is expected to have a Ph.D., postdoctoral experience, and to participate in undergraduate and graduate teaching. Applicants should send their curriculum vitae, selected reprints, a brief statement of present and future research plans, and three to five letters of recommendation to: **Dr. Robert Cohen, Search Committee Chair, Department of Molecular Biosciences, University of Kansas, Lawrence, KS 66045.** Review of applicants will begin January 15, 2000. Position is contingent upon budgetary approval. **Website: www.ukans.edu/~bcmic/bcmfdev/bcmfdev.html.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATES: biogeochemistry and modeling of agricultural and aquatic ecosystems. Four positions available immediately for the following projects in an interdisciplinary water-quality initiative in Illinois: (1) modeling N transport in watersheds with extensive subsurface (tile) drainage; (2) modeling the biogeochemistry of nutrients, especially nitrogen, in agricultural soils; (3) biogeochemistry of C and N in agricultural soils, focusing on long-term changes; and (4) in-stream denitrification and biological processing of N. All positions require a Ph.D. in a relevant field of natural science, ecology, or engineering. Include cover letter of experience and goals, curriculum vitae, and contact information for three references by January 21, 2000, to: **Postdoctorates, University of Illinois, Department of Natural Resources and Environmental Sciences, W-503 Turner Hall, 1102 South Goodwin Avenue, Urbana, IL 61801.** For complete descriptions of each position and individual contact information, see **website: postdocs.nres.uiuc.edu.**

CLINICAL TRIALS DIRECTOR

The Collaborative Network for Clinical
Research on Immune Tolerance
The Department of Medicine,
Section of Rheumatology

The University of Chicago is seeking applicants for a tenure-track position at the Assistant or Associate Professor level to serve as the Clinical Trials Director of the Immune Tolerance Network. The Network is a collaborative effort of over 70 researchers seeking to facilitate the advancement of tolerance-inducing procedures in human clinical practice through research in kidney & islet transplantation, autoimmune diseases, and asthma & allergic diseases through investigator initiated clinical trials. This individual will have an academic appointment in the Department of Medicine, Section of Rheumatology, a clinical unit of the University of Chicago Hospitals.

We are seeking outstanding individuals with extensive experience in the execution and monitoring of clinical trials, preferably with a background in pharmaceutical-industry sponsored trials and an interest in immune-mediated diseases. The individual who assumes this position will dedicate approximately 75% effort to ITN activities, primarily directing & managing trials, and the remainder to clinical care activities in Rheumatology.

Please send C.V. with references to: **Search Committee, Immune Tolerance Network, The University of Chicago, 5841 S. Maryland Ave., MC6027, Chicago, IL 60637 by January 31, 2000.** (www.immunetolerance.org)



**THE UNIVERSITY
OF CHICAGO**

An Affirmative Action/
Equal Opportunity Employer



Management/Program Analyst

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

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

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

MCP HAHNEMANN UNIVERSITY SCHOOL OF MEDICINE CHAIR OF BIOCHEMISTRY

MCP Hahnemann's recent alliance with Tenet Healthcare and Drexel University has created significant resources and innovative leadership to continue its rich tradition of quality academic medicine. The Chair of Biochemistry at MCP Hahnemann represents an outstanding opportunity for a nationally recognized scientist to build a department that is responsive to the changing environment facing academic medicine. This individual will provide a supportive and stimulating environment for the development of high quality, innovative research and will support the continuation of high standards for the educational program. The Chair will have the opportunity to attract and develop faculty in Biochemistry who will assure that the highest standards of scholarship are maintained.

The ideal candidate should be a tenured faculty member in Biochemistry or related department or program. The ideal candidate should have direct experience in the academic programming of a medical school curriculum. Prior significant administrative leadership experience in an academic institution is preferable. The candidate chosen will possess an understanding of and commitment to the academic mission of the health sciences and an interest in collaboration with faculty or other departments and centers.

Interested individuals should submit a letter expressing interest and a current curriculum vitae to the attention of Arnold Sherrin or Nancy Cook:

MCP Hahnemann University
c/o Korn/Ferry International
Two Logan Square, Suite 2530
Philadelphia, PA 19103

e-mail: arnie.sherrin@kornferry.com
nancy.cook@kornferry.com
(215) 496-6666
(215) 568-9911 - Fax

MCP Hahnemann is an affirmative action and equal opportunity employer, as is Korn/Ferry.

STAFF SCIENTIST IN MOLECULAR BIOLOGY

NATIONAL INSTITUTES OF HEALTH (NIH)
National Institute of Deafness and Other
Communication Disorders (NIDCD)

The Tumor Biology Section, Head and Neck Surgery Branch, National Institute on Deafness and Other Communication Disorders is recruiting for a Staff Scientist in Molecular Biology. The Staff Scientist is responsible for carrying out collaborative basic and translational research studies, and for maintaining the molecular biology facility of the Section. The position requires a Ph.D., with extensive training and postdoctoral experience in identification of expressed genes by mRNA differential display and microarray methods; gene cloning; plasmid and viral vector construction transduction and expression; mutational analysis; transcription and signal transduction studies. The candidate should have broad experience in cancer biology and more detailed knowledge of the biology of squamous cell carcinoma, transcription and signal transduction. The successful candidate is expected to maintain an active program of collaborative research; to learn, develop and adapt new techniques as needed to explore pertinent research questions; and to be knowledgeable about scientific resources (both human and material) at the NIH and elsewhere. This is a 3 year term appointment, with a base salary ranging from \$58,027 to \$75,433 (GS-13 equivalent) per year depending on qualifications. **For more information call Carter Van Waes, M.D., Ph.D., TBS, HNSB, NIDCD, Telephone: 301-402-4216, e-mail vanwaesc@nidcd.nih.gov.** Applicants should submit a curriculum vitae including bibliography, brief statement of research interests/accomplishments and three letters of recommendation by **January 10, 2000** to:

Ms. Gayle Mundell
NIDCD Personnel Management Branch
31 Center Drive, Building 31, Rm. 3C11, MSC 2320
Bethesda, MD 20892-2320
(301) 402-0508 (voice), (301) 402-1562 (TTY)

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

POSTDOCTORAL POSITIONS AT THE UNIVERSITY OF VIRGINIA

Postdoctoral positions are available to study how the diversity of G protein α and $\beta\gamma$ subunits leads to specificity in transmembrane signaling. We are defining functional roles for $\beta\gamma$ dimers containing divergent β subunits such as β_2 using pure, recombinant proteins and cell transfection assays to monitor interaction with various α subunits and effectors. Systems under study include receptor- α : $\beta\gamma$ coupling, regulation of Type I and II adenylyl cyclases, and activation of PLC- β or PI 3-kinase. A Ph.D. with experience with molecular techniques, biochemistry, and protein purification is required. Send a curriculum vitae and list of references to: **Dr. James C. Garrison, Department of Pharmacology, Box 448, University of Virginia Health System, Charlottesville, VA 22908.** Application deadline: December 31, 1999. *The University of Virginia is an Equal Opportunity/Affirmative Action Employer.*

SEPARATIONS CHEMIST IMMEDIATE OPENING

Join the Isco team in applications and development of separations instruments and chromatography. We have an immediate laboratory opening for an individual with a B.S. or Master's in chemistry or pharmaceutical chemistry who has a strong background in organic chemistry and pharmaceutical separation chemistry. HPLC/Flash experience required. Salary commensurate with experience. Qualified candidate may complete an application at or send a résumé to:

Isco, Inc.
Human Resources Department
P.O. Box 82531
Lincoln, NE 68501-2531
FAX: 402-465-3944
E-mail: deannas@isco.com
See our website: www.isco.com.

Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION SIGNALING AND INTEGRIN ACTIVATION

Requires knowledge of signaling molecules, immunoprecipitations, platelet function or cell adhesion, and integrin structure/function. Position funded for at least one year, with renewal upon satisfactory performance. Applicant expected to apply for Postdoctoral Fellowship during training period. Interested applicants should send their curriculum vitae and three references to:

Lisa K. Jennings, Ph.D.
Vascular Biology Program
University of Tennessee, Memphis
Coleman Building, Room H300
956 Court Avenue
Memphis, TN 38163

NEUROSCIENTIST POSTDOCTORAL POSITION to investigate regulation of the nitric oxide-guanylyl cyclase signaling pathway in relation to NO interactions with analgesic mechanisms in the central nervous system. Molecular biology, neuropharmacology, and neurohistochemistry experience required. Please submit your curriculum vitae and three references to: **Roger A. Johns, M.D., Department of Anesthesiology and Critical Care Medicine, Block 1415, Johns Hopkins University School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287-4965.** *The Johns Hopkins University School of Medicine is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN DEVELOPMENTAL IMMUNOLOGY

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

POSITIONS OPEN

FOUR POSTDOCTORAL POSITIONS UNIVERSITY OF CALIFORNIA, BERKELEY COMPUTATIONAL BIOLOGY

As part of a major expansion of computational molecular biology and genomics at Berkeley, the Arkin and Brenner groups have openings for four Postdoctoral Fellows, as well as multiple Scientific Programmers and System Administrators. The Brenner group investigates computational structural and functional genomics. We develop methods for analysis and integration of genomic sequence, structure, and expression data. Two Postdoctoral positions are available for distant homology detection from sequence and structure, protein selection for crystallographic studies and analysis of solved structures, prediction of gene function using genomics and phylogeny, or any related area of computational molecular biology. The Arkin laboratory focuses on analysis of complex biochemical and genetic reaction networks. We develop theory and tools that take the vast amount of data available about specific pathways in an organism of interest and predict cellular function and response to perturbation and engineering. Postdoctoral positions are available in any related area of computational/theoretical biology. Applicants for Postdoctoral positions should have Ph.D. or M.D. and programming experience. Please send a summary of scientific interests, curriculum vitae, reprints, and three references to: **Dr. Steven E. Brenner** (genomics) and/or **Dr. Adam Arkin** (cell networks), **130A Melvin Calvin Laboratory, University of California, Berkeley, CA 94720-5320.** E-mail: ucbjobs@compbio.berkeley.edu; website: <http://compbio.berkeley.edu/ucbjobs/>. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION(S) available immediately to study gene therapy for muscular dystrophy in the laboratories of **Dr. X. Xiao** of University of Pittsburgh and/or **Dr. X.-Q. Liu** of Dalhousie University. The emphasis is on using protein splicing and AAV-based vectors for gene delivery. A strong background in molecular biology and associated laboratory techniques is desirable. Please send curriculum vitae and names of three references to: **Dr. X.-Q. Liu, Department of Biochemistry and Molecular Biology, Dalhousie University, Halifax, Nova Scotia B3H 4H7 Canada.** E-mail: pxqliu@is.dal.ca; FAX: 902-494-1355.

POSTDOCTORAL RESEARCH POSITIONS PORTLAND, OREGON

Two Postdoctoral Research Associate positions are available to investigate assembly of fibrillin microfibrils and pathogenesis of the Marfan syndrome. Individuals with an interest in protein structure/function and in how the extracellular matrix influences cell behavior are encouraged to apply by sending a letter and curriculum vitae to: **Lynn Y. Sakai, Shriners Hospitals for Children, 3101 S.W. Sam Jackson Park Road, Portland, OR 97201.** E-mail: LYS@shcc.org.

Several **POSTDOCTORAL POSITIONS** available immediately for studies of cancer metastasis and tumor immunology [*Science* 271:509-512, 1996; *Science* 284:1187-1191, 1999]. You will join a highly enthusiastic and interactive research team. Background or experience in molecular biology or biochemical analysis of cell activation preferred. Please forward curriculum vitae, bibliography, and names of three references to: **Dr. Georg F. Weber, New England Medical Center, 750 Washington Street, NEMC #824, Boston, MA 02111.** FAX: 617-636-6205.

POSTDOCTORAL POSITION: Ph.D./M.D.; molecular/cell biologist to study protein interactions and gene transcription involving novel nuclear protein. *U.S. citizen/permanent resident only.* Send curriculum vitae, three references, statement of interest to: **George W. Cox, Ph.D., Pharmacology Department, Room C2007, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799,** by January 10, 2000. *Equal Opportunity Employer/Affirmative Action.*

POSITIONS OPEN

A **POSTDOCTORAL POSITION** is available immediately for an NIH-funded project to study protein kinase structure-function relationships for gene transcription regulation. The candidate should have a Ph.D. with relevant experience in molecular biology and biochemistry. Familiarity with site-directed mutagenesis, expression of recombinant proteins, and the biochemistry of signal transduction are highly desirable. Experience with transient transfection and reporter gene assays, gel shift and super-shift analysis, kinase assays, peptide libraries, RT-PCR is helpful. Applicants must possess excellent communication skills in English. Please send curriculum vitae, a brief description of research experience, and names and telephone numbers of three references to: **Stephen J. Beebe, Ph.D., Eastern Virginia Medical School, Center for Pediatric Research, 855 West Brambleton Avenue, Norfolk, VA 23510.** *Eastern Virginia Medical School is an Affirmative Action/Equal Opportunity Employer.*

ADVANCED POSTDOCTORAL or RESEARCH ASSISTANT PROFESSOR needed to work on molecular biology of nickel and chromate carcinogenesis. Experience with all aspects of molecular biology for projects involving DNA methylation histone acetylation and induction of transcription factors (HIF) and new genes (Cap 43). Laboratories are located in a beautiful rural setting in Sterling Forest, Tuxedo, New York. Curriculum vitae along with three references to: **Max Costa, Ph.D., Professor and Chairman, Department of Environmental Medicine, NYU School of Medicine, 57 Old Forge Road, Tuxedo, NY 10987.** E-mail: costam@env.med.nyu.edu.

POSTDOCTORAL POSITIONS WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY

Two Postdoctoral positions are available for highly motivated Ph.D. graduates to study the mechanism of JAK-STAT signaling (*EMBO J.* 23:6963) using biochemical and molecular genetic methods. Experience in protein purification, mouse work, and/or immunology is preferred. Please send curriculum vitae and three reference letters to: **Dr. Jillian Zhang, Department of Pathology, Cornell Medical School, 1300 York Avenue, Room C339, New York, NY 10021.** E-mail: jjz2002@mail.med.cornell.edu.

Two **POSTDOCTORAL POSITIONS** and a **TECHNICIAN POSITION** are available immediately for NIH-funded studies of genes affecting tubule structure and related to polycystic kidney disease in the model organism *C. elegans* (brief description at website: <http://www.cc.ukans.edu/~micro/buechner.html>). Experience in molecular biological techniques is essential. Please send curriculum vitae and three letters of reference to: **Matthew Buechner, Ph.D., Department of Molecular Biosciences, University of Kansas, Lawrence, KS 66045-2106.** E-mail: matthew@eagle.cc.ukans.edu. *Kansas University is an Equal Opportunity Employer.*

GLIER ENVIRONMENTAL POSTDOCTORAL FELLOWSHIPS

Up to five Postdoctoral Fellowships: tenable for one year, renewable for a second. Applicants interested in fisheries ecology, hydrogeology, and enzymatic waste processing particularly encouraged. Further information at website: www.uwindsor.ca/glier. Submit applications, curriculum vitae, and three references by December 20, 1999, to: **Director, Great Lakes Institute for Environmental Research, University of Windsor, Windsor, ON N9B 3P4 Canada.**

Two **POSTDOCTORAL POSITIONS** are available to study the signal transduction of cytokines in the liver. Must have Ph.D. or M.D. and at least one year of experience in molecular biology and transgenic technique. Please send description of research interests, curriculum vitae, and names of three references to: **Dr. Bin Gao, Department of Pharmacology and Toxicology, Virginia Commonwealth University, P.O. Box 980613, Richmond, VA 23298-0613.** E-mail: bgao@hsc.vcu.edu.

Chart the right course for your career.



Steer to these coordinates...
www.scienceonline.org

Science Professional Network can help you navigate through the myriad career options with its fast, **searchable jobs database** and other useful career information.

Science Professional Network
www.scienceonline.org
Click on *Science Careers*

EUROPEAN OPPORTUNITIES



The University of Göteborg, Sweden
Dept. of Medical Microbiology & Immunology

ADP-ribosylating toxins - analysis of mechanism of action by transcriptional profiling using global gene array analysis

A postdoctoral position is currently available within the framework of an EU funded project for vaccine development. We are seeking a highly motivated Ph.D. in molecular biology/biochemistry/immunology with a minimum of two years postdoctoral experience. Your main research responsibility will be to study effector mechanisms by which ADP-ribosylating toxins exert their immune potentiating activity. The aim is to gain new molecular information on mechanisms governing immunomodulation by taking a global view of changes in **gene expression**. Isolated cells or whole animals are to be subjected to treatment with native or mutant adjuvant constructs and analyzed for gene expression using state-of-the-art affymetrix gene chip technology. The research will generate basic understanding of immune regulation at mucosal membranes with special focus on **B cells and signal transduction**. Novel vaccine adjuvants are to be constructed and evaluated in appropriate mouse models. The successful applicant will join a research team of 8-10 people involved in the study of B and T cell responses to conventional or infectious disease relevant antigens. Important skills include experience in methods for analysis of gene expression profiles and biochemical analysis of signal transduction, including protein phosphorylation/dephosphorylation etc., as well as experience in using bioinformatics tools. The work will also involve designing novel and modified gene fusion proteins with targeted action.

The Department of Medical Microbiology & Immunology, University of Göteborg, Sweden is a research center of excellence for the development of mucosal vaccines and vaccine adjuvants. It has a longstanding tradition in mucosal immunology and is recognized worldwide for basic and applied science in this field.

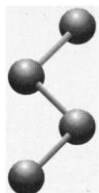
Applications with full CV, names of referees and a short letter outlining the suitability for the relevant post should be sent to:

Dr. Nils Lycke, Department of Medical Microbiology & Immunology, University of Göteborg, S-413 46 Göteborg, Sweden.

e-mail: nils.lycke@microbio.gu.se FAX: 46-31-827647

PROGRAMS

FALL 2000 Ph.D. PROGRAMS



THE

SCRIPPS

RESEARCH

INSTITUTE

- **Chemistry Program**
- **Macromolecular & Cellular Structure & Chemistry Program**

The Scripps Research Institute (TSRI) will admit highly qualified students in the Fall of 2000 to two Ph.D. Programs: one integrating cell and molecular biology with structure and chemistry, and the other in chemistry.

Graduate studies at TSRI provide an exceptional training opportunity in a uniquely multidisciplinary environment with an emphasis on individualized training for each student.

Candidates must have a bachelor's degree and a strong background in biology and/or chemistry. Qualified applicants will be invited to visit the Institute. Financial support will be provided to all accepted students.

Since its establishment in 1961, the Institute has gained international recognition for its basic research in molecular biology, immunology, chemistry, neurosciences, cell biology, and plant biology.

Individuals interested in applying to either program should contact the Office of Graduate Studies for a brochure and application due by January 1, 2000: **The Scripps Research Institute, Office of Graduate Studies, 10550 North Torrey Pines Road, TPC19, La Jolla, CA 92037. Tel: (858) 784-8469. Internet: <http://www.scripps.edu>.** The graduate programs are accredited by the Western Association of Schools and Colleges. TSRI is an equal opportunity institution.

Center for Scientific Review National Institutes of Health

Senior Executive Service Opportunity Closing Date: January 11, 2000

Building on 50 years of pride in peer review, the Center for Scientific Review (CSR) invites applications for candidates to serve as Deputy Director, CSR. The CSR is the focal point at the NIH for the conduct of initial peer review, the foundation of the NIH extramural programs. Under the direction of the Director, CSR, the incumbent serves as a key member of the Center's senior leadership team, and participates fully with the Director, CSR in establishing a strategic plan, organizational policies and priorities, and in planning, directing and coordinating CSR's programs and activities. The incumbent will serve as the full Deputy to the Director and will act for the Director during her absence.

This is a Civil Service position in the Senior Executive Service with a base salary ranging from \$110,351 to \$125,900 (including locality) per year, depending on qualifications. A recruitment bonus of up to 25 percent of base pay may be available to a non-Federal candidate selected for this position, subject to individual approval. A relocation bonus of up to 25 percent may be available to a permanent Federal employee who must relocate to accept this position, subject to individual approval. Physicians may be eligible for a Physicians Comparability Allowance up to \$20,000 per year. Benefits include health and life insurance options, retirement, savings plans, paid holidays, and vacation and sick leave. Members of the Commissioned Corps of the U.S. Public Health Service and SES reinstatement eligibles will be considered.

Application procedures and qualification requirements may be accessed on the CSR web site at <http://www.csr.nih.gov/employment>, or by contacting the Human Resources Branch at (301) 435-1122. Applications for this position must be postmarked by January 11, 2000.

Selection for this position will be based on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical handicap, age, sexual orientation, or membership/non-membership in an employee organization.

NIH is an Equal Opportunity Employer

POSITIONS OPEN

CELL BIOLOGIST/BIOCHEMIST FULL-TIME, TENURE-TRACK POSITION

Christopher Newport University, Virginia's newest public university, invites applications to fill a position at the **ASSISTANT PROFESSOR** level in the Department of Biology, Chemistry, and Environmental Science. The Ph.D. degree with specialty in the field and demonstrated abilities in teaching and research, as well as effective communication skills, are required. See our website: <http://www.cnu.edu> for further teaching and research requirements. CNU is a liberal arts, Master's degree-granting institution of 5,000 students with an attractive suburban campus serving a large metropolitan region in southeast Virginia that offers many cultural and research opportunities. Send a letter of application, a curriculum vitae, a statement of teaching philosophy, a statement of research interests, and three letters of recommendation to: **Office of Human Resources, #8051, Christopher Newport University, 1 University Place, Ferguson Hall, Room 123, Newport News, VA 23606-2998.** Only complete applications will be considered. Evaluation of applications begins January 10, 2000. CNU hires only U.S. citizens and aliens lawfully authorized to work in the United States. Women, minorities, and individuals with disabilities are encouraged to apply. An Equal Opportunity Employer/Affirmative Action Employer.

Behavioral neuroscience. The Department of Behavioral Science at the College of Medicine of The Pennsylvania State University announces a tenure-track position for an **ASSISTANT PROFESSOR**. Research preferences are in learning, memory, or regulatory plasticity with an emphasis on behavior. The candidate must demonstrate capability for independent research and funding. Send a cover letter, including a summary of research interests and accomplishments; curriculum vitae; up to three publications; and three letters of reference to: **Search Committee, Department of Behavioral Science H181, College of Medicine, The Pennsylvania State University, Hershey, PA 17033.** Applications will be reviewed as they arrive, and the search will continue until the position is filled. Additional information about the Department of Behavioral Science can be found at website: <http://www.collmed.psu.edu/bhsci/>. Affirmative Action/Equal Opportunity Employer.

RESEARCH ENTOMOLOGIST/ ECOLOGIST

Agricultural Research Service United States Department of Agriculture

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

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS Case Western Reserve University School of Medicine

Applications are invited for positions as **INSTRUCTORS, RESEARCH ASSOCIATES, and POSTDOCTORAL FELLOWS** in the following areas: signal transduction, molecular biology of membrane proteins, structural biology, channel regulation, cell motility, and systems-integrated physiology. Send curriculum vitae, a description of research accomplishments and future goals, and the names of three references to: **Administrative Manager, Department of Physiology and Biophysics, 10900 Euclid Avenue, Cleveland, OH 44106-4970.** An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MOLECULAR TOXICOLOGY UNIVERSITY OF WISCONSIN-MADISON

POSTDOCTORAL POSITIONS available in molecular, cellular, and biochemical toxicology, funded by an NIEHS training grant. Topic areas include: regulation of gene expression (toxicant metabolizing enzymes, oncogenes, DNA repair enzymes); toxicant activation; toxicity in developing organisms; mechanisms of carcinogenesis; action of toxicants on liver, kidney, gonadal, and immune cells. Time will be allocated for training in toxicology and molecular and cellular biology as appropriate. Collaborative projects involving more than one laboratory are encouraged. Applicants must be U.S. citizens or permanent residents and should send a curriculum vitae, three references (addresses/telephone), and a letter stating research interests to: **B. Lynn Allen-Hoffmann, Director, Environmental Toxicology Center, B157 Steenbock Library, 550 Babcock Drive, Madison, WI 53706.** Telephone: 608-263-4580; FAX: 608-262-5245. An Equal Opportunity Employer.

POSTDOCTORAL POSITION IN GENE THERAPY FOR NEURODEGENERATIVE DISEASES

Positions are available for postdoctoral research in gene therapy for neurodegenerative diseases, Program in Gene Therapy, University of Iowa College of Medicine. The research objectives include the development of novel vectors for gene transfer to the mammalian brain. The successful candidate must have an M.D. or its equivalent and two years of postdoctoral experience in molecular biology, virology, animal models, and cell biology. The candidate must be capable of interacting with a productive research team involved in the development of new vectors, the identification of novel disease genes, and the development of animal models. Salary commensurate with experience. Please send curriculum vitae and three references to: **Beverly L. Davidson, Ph.D., Internal Medicine, 200 EMRB, Iowa City, IA 52242** or e-mail: beverly-davidson@uiowa.edu. The University of Iowa is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS

Two Postdoctoral positions are available immediately to study the control of apoptosis by novel members of the tumor necrosis factor receptor and ligand families (see, for example, **Mukhopadhyay et al., J.B.C. 274:15978, 1999; Darnay et al., J.B.C. 274:7724, 1999; Manna et al., J.B.C. 273:33333, 1998; Darnay et al., J.B.C. 273:20551, 1998; Giri et al., J.B.C. 273:14008, 1998; Manna et al., J.B.C. 273:13245, 1998**). Applicants should have a recent Ph.D. in molecular biology or related discipline, at least one first-author publication in a major journal, and preferably some practical experience in the field of apoptosis. Please send your application to: **Professor Bharat B. Aggarwal, Cytokine Research Section, Box 143, The University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.** E-mail: aggarwal@utmdacc.mda.uth.tmc.edu.

POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

Position available to study initiation of eukaryotic DNA replication using a novel cell-free system that supports 100% efficient, cell-cycle regulated chromosomal DNA replication in soluble protein extracts (**Walter et al., Molecular Cell 1:519**). Available projects include identifying novel initiation factors; understanding the roles of ORC, MCM, and cdc45 in origin unwinding; and elucidating the regulatory mechanisms that limit initiations to once per cell cycle. Candidates with a strong background in molecular biology/biochemistry should send a cover letter, curriculum vitae, and names of three references to: **Dr. Johannes Walter, BCMP Department, Harvard Medical School, 240 Longwood Avenue, Boston, MA 02115.** Website: <http://sbweb.med.harvard.edu/~bcmc/walter.html>.

POSITIONS OPEN

DEPUTY DIRECTOR MEDICAL RESEARCH SERVICE U.S. Department of Veterans Affairs

Medical Research Service, Department of Veterans Affairs (VA), is recruiting for the position of Deputy Director, located at VA Headquarters, Washington, D.C. The Deputy Director will be responsible to the Director, Medical Research Service, for management of the Medical Research program of the Department of Veterans Affairs. Candidates must be doctoral-level research scientists with a biomedical research background. Candidates must currently be or have recently been principal investigators in nationally peer-reviewed research. Accommodation for ongoing research activities concurrent with administrative duties may be negotiated. Experience in research proposal writing and evaluation is required. Experience working within a large intramural biomedical research program is helpful. Applications will only be accepted from U.S. citizens. The position has been classified at the Civil Service Title 5, GS-15 level. Salary will range from \$74,773 to \$97,201 (not including locality pay). Benefits package and relocation assistance are available. Applicants should send recent curriculum vitae, résumé, SF-171, or an Optional Federal Employment Application form to: **Cora Felder (05), Staffing Specialist HRMS, VA Medical Center, 150 South Huntington Avenue, Boston, MA 02130.** FAX: 617-278-4431. Applications will be accepted until January 1, 2000. For further information, contact: **Cora Felder, Telephone: 617-232-9500, ext. 5559.** Equal Opportunity Employer.

POSTDOCTORAL POSITION in gustatory neurobiology available to study brain stem gustatory nuclei and associated reticular formation circuitry. Experiments in NIDCD-sponsored projects relate topographic representation of taste information to efferent circuitry and neurotransmitter phenotype. Additional studies focus on reticular circuits mediating ingestion and rejection and peptide modulation of these motor patterns elicited by gustatory stimuli. Experience in neurophysiology, immunohistochemistry, or *in situ* hybridization desirable. Send your research interests and curriculum vitae to: **Dr. Susan Travers, Section of Oral Biology, College of Dentistry, Ohio State University, 4157 Postle Hall, 305 West 12th Avenue #192, Columbus, OH 43210-1241.** E-mail: travers.3@osu.edu. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

RESEARCH ASSOCIATE POSITIONS

Two Research Associate positions are available at the University of Wisconsin to investigate the cellular and molecular basis of toxicity of 1,3-butadiene and to characterize hepatic and renal flavin-containing monooxygenases and their roles in the metabolism and toxicity of cysteine S-conjugates and methionine. For further information on these two research projects, visit the website: <http://www.vetmed.wisc.edu/cbs/elfarra.html>. Applicants having Ph.D. degrees in relevant biological sciences and chemistry will be considered. Submit a résumé and the names of three references to: **Dr. Adnan Elfarrar, 2015 Linden Drive West, Madison, WI 53706.** E-mail: elfarraa@svm.vetmed.wisc.edu; FAX: 608-263-3926.

POSTDOCTORAL RESEARCH FELLOW positions are available to participate in multidisciplinary research projects involving retinal physiology and glial cell function using molecular biological, biochemical, and electrophysiological approaches in transgenic animal models. Candidates must have demonstrated expertise in various electrophysiological and/or molecular biological or biochemical techniques. Send curriculum vitae and the names of three references to: **Dr. Paulo Kofuji or Dr. Eric Newman, Department of Neuroscience, University of Minnesota, 6-145 Jackson Hall, Minneapolis, MN 55455.** E-mail: kofuj001@tc.umn.edu; FAX: 612-626-5009.



Serono Pharmaceutical Research Institute

The Institute is an affiliate of The Ares-Serono Group which has its Executive Headquarters in Geneva and is a leading multinational engaged in research, development and marketing of products in the biotechnology field. The Institute is a state-of-the-art centre of scientific excellence. Its research is directed towards the identification of novel molecular mechanisms underlying disease and the discovery of new drugs.

A challenging and exciting opportunity exists for a

SCIENTIST Apoptosis mechanisms

We are looking for a world class scientist with interest in the molecular mechanisms of apoptosis. The candidate will head a group involved in identifying novel targets of apoptosis and will participate in the discovery of small molecules aimed at blocking inappropriate apoptosis in neurological and cardiovascular pathologies.

The candidate should have a Ph.D. or M.D./Ph.D. and an extensive knowledge in apoptosis, including experience in cell biology and the function of mitochondria. Expertise in neurobiology and/or cardiovascular diseases and experience in the pharmaceutical or biotechnology industries would be an added advantage.

Further information can be obtained informally from Dr Jean-Claude Martinou by e-mail jean-claude.martinou@serono.com, or by visiting our web site www.spri.serono.com.

If you are interested, please send your curriculum vitae with a list of publications and the names of three referees to the Personnel Department of the Institute.

Serono Pharmaceutical Research Institute

Ares-Serono International S.A.

14, chemin des Aulx
1228 Plan-les-Ouates
Geneva /Switzerland

Telephone
+41 22 706 96 66

Telefax
+41 22 794 69 65

E-Mail
spri.jobs@serono.com

GLOBAL OPPORTUNITIES

THE UNIVERSITY OF THE
WEST INDIES
CAVE HILL, BARBADOS

CHAIR IN TROPICAL HORTICULTURE



Applications are invited for the joint post of Professor of Tropical Horticulture, Cave Hill Campus, Barbados & Director of Andromeda Botanic Gardens, Barbados. The post has been established in the Department of Biology of the Faculty of Science and Technology at the Cave Hill Campus, through the generosity of the Peter Moores Foundation, and applicants should have both the ability to organise practical and academic training in tropical ornamental horticulture as well as the practical horticultural skills necessary for the management of a Tropical Botanic Garden. The successful candidate will also be expected to develop relevant research programmes in collaboration with the Department of Biology (Barbados) and the Faculty of Agriculture (Trinidad).

The successful applicant will be expected to assume duties as soon as possible.

Detailed applications (three copies) giving full particulars of qualifications and experience, biodata and the names and addresses of three referees should be sent as soon as possible to the **CAMPUS REGISTRAR, UNIVERSITY OF THE WEST INDIES, PO BOX 64, BRIDGETOWN, BARBADOS** (tel: (1 246) 417 4064; fax: (1 246) 417 0330; email: human_resources@uwichill.edu.bb). In order to expedite the appointment procedure, applicants are advised to ask their referees to send confidential reports direct to the Campus Registrar without waiting to be contacted. Further particulars for this post including remuneration package are available on request. These particulars may also be obtained from the Association of Commonwealth Universities (47922), 36 Gordon Square, London WC1H 0PF, UK (tel: (0207) 387 8572 Ext. 206; fax: (0207) 383 0368; email: adverts@acu.ac.uk).

EUROPEAN OPPORTUNITIES



UNIVERSITY OF
OXFORD

Sir William Dunn School of Pathology

New initiative to bring group leaders and independent investigators in molecular and cellular pathogenesis to Oxford.

The Department wishes to initiate research programmes in the mechanisms of disease. A new building (see website <http://www.path.ox.ac.uk/epa.htm>) with a capacity of 75 will be available for occupancy early 2001, complete with laboratory space for new group leaders, as well as independent investigators at all levels. Examples of research fields include (but are not restricted to):

- microbial and viral pathogenesis of infectious disease and its control
- cell and molecular biology related to cancer
- transgenesis and animal models of disease
- gene expression and its regulation
- vascular biology, and
- bioinformatics.

The Department has no clinical responsibilities and has excellent facilities for cell and molecular research. Current research includes immunology, nuclear structure and function, and microbial and viral molecular cell biology. We are particularly interested in sponsoring and underwriting applicants to external sources of funding. Further funding will be available for start-up and support through a large range of services.

All positions will be advertised next autumn but the Search Committee wishes to receive informal expressions of interest at this stage.

For further information see <http://www.path.ox.ac.uk>, or contact Professor Siamon Gordon, Search Committee, Sir William Dunn School of Pathology, South Parks Road, Oxford OX1 3RE. Tel: (01865) 275534; fax: (01865) 287528; email: christine.holt@path.ox.ac.uk

The University is an Equal Opportunities Employer.

POSTDOCTORAL POSITION TULANE UNIVERSITY MEDICAL CENTER

Postdoctoral position available immediately to investigate virulence mechanisms in the enteric pathogen *Salmonella typhimurium*. Emphasis will be placed on molecular genetic characterization of mechanisms of *Salmonella* pathogenicity in order to define genetic loci, which may contribute to the pathogenicity of this organism. The successful candidate must have extensive experience with recombinant DNA and molecular genetic techniques, as this project makes extensive use of cloning, expression and molecular analysis of cDNAs and genes, DNA hybridization analysis, PCR analysis, and mutant analysis in conjunction with relevant animal models and tissue culture cell lines. Newly renovated laboratory is well equipped and spacious. Salary and benefits commensurate with experience and new NIH guidelines. Applicants must be self-motivated and highly ambitious. Please send curriculum vitae, one-page description of background and research experience, plus contact information for three references to: **Dr. Cheryl A. Nickerson, Department of Microbiology and Immunology SL38, 1430 Tulane Avenue, New Orleans, LA 70112-2699. E-mail: cnicker@mailhost.tcs.tulane.edu; FAX: 504-588-5144.**

A fully funded **POSTDOCTORAL POSITION** is available for study of the mechanism of pre-mRNA splicing. The role of a new cyclophilin that forms a complex with two U4/U6 snRNP proteins (*RNA* 3:1374-1387, 1997) is being studied. We are characterizing this complex and studying its function in splicing. In addition, we are investigating the mechanism of the second step of splicing. The Prp18 protein is both a focus of the work and a tool for examining the second-step spliceosome (*Genes and Dev.* 11:139-151, 1997). Experience in molecular biology is essential; some experience in protein biochemistry or *in vitro* RNA work is desirable. Please send curriculum vitae, including the names of three references, to: **Dr. David Horowitz, Department of Biochemistry, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814. Telephone: 301-295-3589; FAX: 301-295-3512; e-mail: dhorowitz@usuhs.mil.** Position is open until filled. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE

Positions are available to study the subcellular targeting and function of novel members of the Rab GTPase family or the trafficking of Alzheimer's β -amyloid precursors. For more information, see website: <http://www.mco.edu/depts/biochem/research.html>. Requirements include a recent Ph.D., experience in protein chemistry, cell biology or molecular biology, and excellent communication skills. Please send curriculum vitae, summary of research interests, and names and addresses of three references to: **William A. Maltese, Ph.D., Professor and Chairman, Medical College of Ohio, Department of Biochemistry and Molecular Biology, 3035 Arlington Avenue, Toledo, OH 43614.**

POSTDOCTORAL POSITIONS are available to study: (1) signal transduction-related regulation of DNA topoisomerase II in anticancer drug resistance and (2) mechanisms of genotoxicity related to the anticancer agent etoposide. Send a curriculum vitae and the names of three references to: **Jack C. Yalowich, Ph.D., Department of Pharmacology, University of Pittsburgh School of Medicine, BST W1355, Pittsburgh, PA 15261. E-mail: yalowich+@pitt.edu.**

POSTDOCTORAL RESEARCH ASSOCIATE. Structural analysis of bacterial polysaccharides. Experience with carbohydrate structural determination desired. Send curriculum vitae to: **Dr. Russell W. Carlson, University of Georgia, Complex Carbohydrate Research Center, 220 Riverbend Road, Athens, GA 30602. E-mail: rcarlson@ccrc.uga.edu.** Deadline: January 15, 2000.



POSTDOCTORAL FELLOW IMMUNOLOGY

A **POSTDOCTORAL POSITION** is available now to study the role of altered CD40-ligand gene transcription in systemic lupus erythematosus. Candidates must have a Ph.D. or M.D. Salary is competitive and commensurate with experience. We seek a creative, independent, and highly motivated individual to spend at least two to three years in the laboratory. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Randy Q. Cron, M.D., Ph.D., Children's Hospital University of Pennsylvania, 3516 Civic Center Boulevard, ARC 902C, Philadelphia, PA 19104-4318; e-mail: cron@email.chop.edu. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION

Postdoctoral position available immediately to participate in an NIH-funded study on the molecular mechanisms of polyglutamine neurodegeneration. Current projects include characterizing suppressors of toxicity, developing animal models, and defining the role of neuronal protein degradation in health and disease (See *Neuron* 19:333-344, 1997; *Cell* 93:939-949, 1998; *Hum. Mol. Genet.* 8:673-682, 1999; *Am. J. Hum. Genet.* 64:339-345, 1999). Candidates should have a recent Ph.D. and/or M.D. with successful research experience in cellular and molecular biology. Send curriculum vitae and names of three references to:

Henry Paulson, M.D., Ph.D.

Department of Neurology

University of Iowa

Iowa City, IA 52242

E-mail: henry-paulson@uiowa.edu

FAX: 319-356-4505

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

POSTDOCTORAL POSITION is available immediately to study ion-protein interactions. Techniques to be used include protein expression and purification, stopped-flow rapid reaction kinetics, and column chromatography. This extends our earlier work [*Collins, Biophysical J.* 72:65-76, 1997]. Please send a hard copy letter stating interest and qualifications, curriculum vitae, and the names and addresses (e-mail, postal, and telephone number) of three references to: **Dr. Kim D. Collins, Department of Biochemistry and Molecular Biology, University of Maryland Medical School, 108 North Greene Street, Baltimore, MD 21201-1503.**

POSTDOCTORAL POSITION available to study the structure and function of unique NaeI-endonuclease/topoisomerase (*Science* 267:1817, 1995; *PNAS* 95:3531, 1998). Strong background in biochemistry/molecular biology and familiarity with site-directed mutagenesis preferred. Please send curriculum vitae and names of three references to: **Dr. Michael D. Topal, Lineberger Comprehensive Cancer Center, University of North Carolina Medical School, Chapel Hill, NC 27599-7295. E-mail: mdtopal@med.unc.edu. UNC is an Equal Opportunity Employer.**

MOLECULAR VASCULAR BIOLOGY POSTDOCTORAL POSITION to investigate the basis for vascular cell proliferation, oxidative/hypoxic gene regulation interactions with the nitric oxide-guanylyl cyclase signaling pathway, and factors regulating cell growth. Please submit your curriculum vitae and three references to: **Roger A. Johns, M.D., Department of Anesthesiology and Critical Care Medicine, Blalock 1415, Johns Hopkins University School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287-4965. The Johns Hopkins University School of Medicine is an Equal Opportunity Employer.**

MIT: OPENING FOR A POSTDOCTORAL ASSOCIATE IN THE AREA OF THREE- DIMENSIONAL OCEAN MODELING

The Department of Earth, Atmospheric, and Planetary Sciences Joint Program on the Science and Policy of Global Change seeks applicants with a Ph.D. in a field relevant to three-dimensional ocean modeling. The Joint Program has constructed an integrated global system model of the world's economies, climate, and ecosystems, which includes an ocean general circulation model as one component. The integrated model is being used to explore the impact of various policies on possible future climate changes, with an emphasis on how uncertainties in key modeling areas affect the outcome. The successful candidate will participate in a study of factors that affect the response of the oceans to changes such as global warming and the associated uncertainties. We seek particularly candidates with degrees and experience in the fields of oceanography or computational fluid dynamics. Candidates who have had experience with three-dimensional models and/or with linear tangent and adjoint models will be preferred. We seek to fill the position early in 2000. Interested candidates should send a copy of their curriculum vitae and names of three references to: **Professor Peter Stone, MIT, Room 54-1718, Cambridge, MA 02139.** Salary will be commensurate with experience. Further information may be obtained by contacting: **Anne Slinn (Telephone: 617-253-4902; FAX: 617-253-0354; e-mail: globachange@mit.edu)** or accessing the Joint Program's website: <http://web.mit.edu/globalchange/>. *MIT is an Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE PLANT BIOCHEMIST

The E. & J. Gallo Winery Research Department is seeking a highly motivated Plant Biochemist to work on challenging projects in our Life Science Research Program. This is an opportunity for an enthusiastic scientist to apply his/her talents to ongoing team research projects involving grapevine metabolism and physiology. The successful applicant will be responsible for conducting research toward elucidating principal biochemical/genetic components and processes linked with vine and fruit growth, differentiation, and maturation. The candidate's research project will be aligned with group research in gene discovery and expression analysis, mapping, and germplasm assessment. Job activities will include constant interface with other company research programs tied with fruit and wine chemistry, viticulture, and winemaking. The position requires a Ph.D. degree in plant chemistry or related field. Prior knowledge of fruit crop physiology is highly desirable. Preference will be given to individuals with expertise in protein chemistry and fruit metabolism. The closing date for applications is January 10, 2000. Qualified candidates should send résumé to:

**E. & J. Gallo Winery
H/R-Research Associate
600 Yosemite Boulevard
Modesto, CA 95354
FAX: 209-341-8455
E-mail: jobs@ejgallo.com**

Please visit us at website: www.gallo.com.

Applications are invited for two **POSTDOCTORAL POSITIONS**. The candidates should have interests in both biology and physics and have backgrounds in biophysics, physics, engineering, or related areas. One candidate will investigate chromatin structure and transcription using single-molecule biophysical techniques. The second candidate will work in nanobiotechnology on a project that will involve nanofabrication together with manipulation of single biological molecules. Please send a cover letter (which indicates which position you are applying for), curriculum vitae, and arrange to have three letters of reference sent to: **Michelle Wang, Department of Physics, 518 Clark Hall, Cornell University, Ithaca, NY 14853.**

POSITIONS OPEN

A **POSTDOCTORAL POSITION** in aquatic ecology is available starting March 2000 at the Florida Center for Environmental Studies. The successful candidate will participate in a project led by the South Florida Water Management District to quantify effects of lake water levels on growth and physiology of submerged aquatic vegetation. Applicants must hold a Ph.D. in ecology or related field and have expertise with observational and experimental methods dealing with aquatic plants. Qualifications must include articles published in the peer-reviewed literature. The position does not include benefits, and the maximum salary is \$35,000 per year plus a travel allowance. To apply, send a cover letter, curriculum vitae, relevant publications, and three letters of recommendation (under a separate cover) to: **Employment Administrator, Florida Center for Environmental Studies, 3970 RCA Boulevard, Suite 7401, Palm Beach Gardens, FL 33410**. Information may also be e-mailed to: hdxeter@ces.fau.edu. Closing date is December 31, 1999.

POSTDOCTORAL POSITIONS at the Baylor College of Medicine available immediately. The first position is to carry out funded research on cell cycle regulation and the cellular response to DNA damage in breast cancer. The second position is available immediately for study of the regulation of human CDC34 (ubiquitin conjugating enzyme) in pediatric leukemia. Applicants should preferably have experience in molecular biology or working with mouse tumor models. Please send a curriculum vitae and two letters of reference to: **Sharon Plon, M.D., Ph.D., Texas Children's Hospital, MC3-3320, 6621 Fannin Street, Houston, TX 77030**. FAX: 713-770-4202; e-mail: splon@bcm.tmc.edu. Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

POSTDOCTORAL POSITIONS studying the changes in the human genome caused by mobile elements. Influences of both cellular transformation and the environment will be studied. Experience in molecular technologies preferred. Send curriculum vitae and letters of reference to: **Dr. Prescott Deininger, Tulane Cancer Center, SL-66, 1430 Tulane Avenue, New Orleans, LA 70112**. Affirmative Action/Equal Opportunity Employer.

TRAINING

APPLICANTS requested for NIH training grant in urology research to begin immediately in one of the following disciplines: urologic oncology, male reproductive dysfunction, infectious diseases, pediatric urology, biochemistry, genetics and epidemiology, tumor immunology, molecular biotechnology, and pathology. Applicants must have an M.D. or Ph.D. and be willing to make a two-to-three year commitment. Must be a U.S. citizen and either pre- or postmedical residency. Salary based on postdoctoral years of experience. Qualified candidates interested in applying should send a curriculum vitae and cover letter to: **Kathleen Close, Department of Urology, University of Washington, Box 356510, Seattle, WA 98195-6510**.

The University of Washington is building a culturally diverse faculty and strongly encourages applicants from female and minority candidates. The University of Washington is an Equal Opportunity/Affirmative Action Employer.

GLOBAL OPPORTUNITIES

Two **POSTDOCTORAL POSITIONS** in microbial genetics in Paris, France, available to investigate chromosomal DNA organization in *E. coli* (1) and study mechanism of microbial infection using *Drosophila* as a model system (2). Please send curriculum vitae to: **Drs. F. Boccard (1) or B. Lemaître (2), Centre de Génétique Moléculaire, CNRS, 91198 Gif/Yvette**. FAX: 33 1 69 82 31 50; e-mail: boccard@cgm.cnrs-gif.fr or Lemaître@cgm.cnrs-gif.fr.

POSITIONS OPEN

A **POSTDOCTORAL POSITION** is available immediately to investigate the role of cytoskeleton in the malignant transformation of cells. Background in molecular biology and/or cell biology is essential. Experience in signal transduction and cytoskeleton is desirable. Send résumé and names of three references to: **G. L. Prasad, Departments of General Surgery and Cancer Biology, Comprehensive Cancer Center of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157**. FAX: 336-716-5414; e-mail: gprasad@unix.temple.edu. Affirmative Action/Equal Opportunity Employer.

GLOBAL OPPORTUNITIES



PROCESS DEVELOPMENT MANAGER

XTL, an Israeli biotechnology company developing therapeutic human monoclonal antibodies, seeks a professional to manage a process development team in production and purification of monoclonal antibodies. **CELL BIOLOGIST** or **BIOCHEMIST** with proven relevant experience in the biotechnology or pharmaceutical industry, including laboratory and process scale cell growth and Ab purification. Requiring organizational, communication, problem-solving, and people skills. Candidates wishing to be considered for this position, please submit your curriculum vitae to: **XTL Biopharmaceuticals Ltd., P.O. Box 370, Rehovot 76100, Israel**. FAX: 972-8-9405017.

MEETINGS

**THIRD INTERNATIONAL SYMPOSIUM
CELL/TISSUE INJURY AND
CYTOPROTECTION/ORGANOPROTECTION**
February 24-27, 2000
Long Beach, California

Topics include: mechanisms of reversible and irreversible cell injury; apoptosis versus necrosis; mechanisms of NSAID and *H. pylori*-induced tissue damage; gene expression and cell injury; prostaglandins, sulphydryls, and growth factors; cytoprotection in organ systems, e.g., GI tract, brain, kidney. Format: invited lectures, minisymposia (two to three invited speakers followed by short presentations selected from submitted abstracts), poster session. Registration fee: \$300.00. To obtain registration and abstract forms and for further information, contact: **Cell Injury and Cytoprotection Symposium, c/o Dr. Sandor Szabo, Veterans Administration Medical Center (05/113), 5901 East Seventh Street, Long Beach, CA 90822**. FAX: 562-494-5623; e-mail: stacey.dent@med.va.gov. Abstract submission deadline: January 10, 2000.

MARKETPLACE

The World of Science Online

- Science Electronic Marketplace
- Science's Next Wave
- Science NOW
- Science Professional Network

Science
www.scienceonline.org

MARKETPLACE

Cells
Chondrocytes
Synoviocytes (RA)
Hair Follicle Dermal Papilla Cells
Plus over 30 other normal human/animal cell types
Cell Applications, Inc. 1-800-645-0848
www.cellapplications.com Email: cellappl@aol.com

Circle No. 25 on Readers' Service Card

HSA RECOMBINANT
Numerous Applications:
Cell & Tissue Culture
Protein Stabilization
Product Formulation
Pharmaceutical R&D
**HIGH PURITY
PATHOGEN FREE**
256-461-0024
New Century Pharmaceuticals, Inc.

Circle No. 52 on Readers' Service Card

TriLink BioTechnologies
Superior Quality with Unparalleled Service
³⁵S and ³H
Radiolabeled Oligonucleotides
Experience Matters
800-863-6801
www.trilinkbiotech.com
Circle No. 21 on Readers' Service Card

RNA Oligonucleotides
Reliable Quality and Yields Guaranteed
\$7.50 / Base
(0.2 µmole, \$24 set-up)
Dharmacon Research, Inc.
Boulder, CO
www.dharmacon.com
(303) 415-9880 • (800) 235-9880

Circle No. 53 on Readers' Service Card

Highly Purified Salt-Free Oligonucleotides

Custom DNA Synthesis

HPSF & PSF Grade

- ❖ Failure Products Removed
- ❖ Salt Removed
- ❖ No Metal Ions
- ❖ MALDI-TOF Production QC


**Starting at \$0.49/base for
PSF Grade (0.01 µmol scale)**
**Never a purification or
setup fee!!!**

MWG-BIOTECH, Inc

Call: 336-812-9962 info@mwgbiotech.com
<http://www.mwgbiotech.com>

Circle No. 30 on Readers' Service Card

MARKETPLACE

 **MORE PRODUCTS
ON PREVIOUS PAGE**

Widely Recognized
Original & Guaranteed

KlenTaq1 8¢/u
Truncated
Taq DNA
Polymerase
Withstand 99°C

US Pat # 5,436,149
Call: **Ab Peptides** 1-800-383-3362
Fax: 314-968-8988 abpeps@icon-stl.net

Circle No. 9 on Readers' Service Card

Antibodies That Answer!
Great Zymed Performance, Dependability, Support.
PTEN, FHIT And Other Antibodies To...

Tumor Suppressors

ZYMED LABORATORIES INC. www.zymed.com
Advancing Science & Medicine Through Immunotechnology 1-800-874-4494

Circle No. 26 on Readers' Service Card

Custom Plasmid Purification
TRANSFECTION QUALITY >700ug at \$15.00
10 prep minimum

All quantities, and all grades, including ...

ENDOTOXIN FREE

 Call for Details...
(800) 654-4671
Ana-Gen Technologies, Inc. www.ana-gen.com

Circle No. 12 on Readers' Service Card

3 O.D. Select Oligos

Just \$0.60/base*

Order through our Web site and we'll ship your 3 O.D. Select oligos in just 24-48 hours. Every oligo is QC'd by PAGE analysis, and each batch is performance-tested by mass spec.

*Desalted only. Oligos must be 10 to 35 bases in length. No modifications or additional purification. Web orders only. Offer valid in U.S. only.

SIGMA GENOSYS
North America: 1-877-710-1504 • email: gorderentry@sial.com

Circle No. 23 on Readers' Service Card


XX IDT®
INTEGRATED DNA TECHNOLOGIES, INC.

Special Introductory Price
Custom Gene Synthesis for Only
\$4.00/Base Pair Through 12/31/99
1-800-328-2661 - www.idtdna.com

Circle No. 15 on Readers' Service Card

MARKETPLACE

DNA Primers from \$0.75 / base



Ransom Hill Bioscience, Inc.
No Setup - No Minimum - No Baloney!
http://www.ransomhill.com
visa@pcsiner.net fax: (800) 597-8509

Circle No. 6 on Readers' Service Card

**Custom Peptides
& Antibodies**

Best Service & Price! Compare and Save!

Alpha Diagnostic (800) 786-5777
Fax (210) 561-9544; info@4adi.com
Web site: http://www.4adi.com

Circle No. 4 on Readers' Service Card

Quality DNA Synthesis

MALDI-TOF Mass Spectrometry Quality Control

Fluorescent Dyes & Other Modifications
Gene Construction and Sequencing Services
Custom RNA Oligos and Antisense DNA Oligos
Custom Primers for PCR & Sequencing
Long Oligos (up to 150-mers)

Competitive Pricing 800-247-8766

 **MIDLAND**
The Midland Certified Reagent Company
Fax: (915) 694-2387 Email: mcrc@oligos.com
Website: www.mcrc.com

Circle No. 2 on Readers' Service Card

Custom DNA Sequencing

❖ Long Reads ❖
❖ Plasmid Inserts ❖
❖ Sequence Done in a Week ❖

❖ Single Strand as low as ❖
\$20.00 for < 650 bases


❖ Double Strand ❖
\$30.00 up to 450 bases
\$45.00 up to 650 bases
\$70.00 up to 1600 bases

Inquire about Large Inserts and
Genome Sequencing.

MWG-BIOTECH, Inc.
Call: 336-812-9995 info@mwgbio.com
http: www.mwgbio.com

Circle No. 31 on Readers' Service Card

DNA SEQUENCING

 **All Templates,
1 FREE RUN**

EST. low, medium, high throughput
as low as \$12/run

1-800-4-PLASMID • www.bio101.com

Circle No. 16 on Readers' Service Card

MARKETPLACE

BIO•SYNTHESIS, INC.

POLYCLONAL ANTIBODY PRODUCTION

Economy Class: **\$1,450.00/project**

- ~ Synthesis of peptides at >70% purity
- ~ Conjugation of peptide to KLH
- ~ ELISA Testing
- ~ Immunization of 2 rabbits

1-800-DNA-EXAM Fax: (972) 420-0442 biosyn@biosyn.com
www.biosyn.com

Circle No. 7 on Readers' Service Card

Quality Peptides & Antisera
Friendly, Personal Service
www.genosys.com

Custom Peptide Synthesis

- sequence analysis
- IG, >70%, >80%, >95% purity
- scales from 2 mg-1 g
- variety of modifications available
- mass spec & HPLC on every peptide
- satisfaction guaranteed

Polyclonal Antisera Service

- antigen design assistance
- synthesis, conjugation and sera collection
- flexible protocol

SIGMA GENOSYS
North America 1-877-710-1502
ginformation@sial.com
Europe (+44) (0) 1223 839000
info@sigma-genosys.co.uk

Circle No. 27 on Readers' Service Card

routine & unique

ANTIBODIES

Specific markers for a wide range of applications:

- Macrophages • Endothelial Cells
- Histopathology
- Custom Monoclonals and Polyclonals

BMA BIOMEDICALS AG
Call for your free catalogue: ++41 61 811 6222 (phone)
info@bma.ch ++41 61 811 6006 (fax)

Circle No. 10 on Readers' Service Card

Custom Peptides

\$14/residue
3 days turn around
Free Mass Spec
HPLC/UV Trace
8-17 residues
20-50 mg (Desalted)

Please inquire for modified peptides
Tel: 800-597-7873
Fax: 925-371-1070
email: peptide@peptidogenic.com

PeptidoGenic The Peptide Engineering Specialist

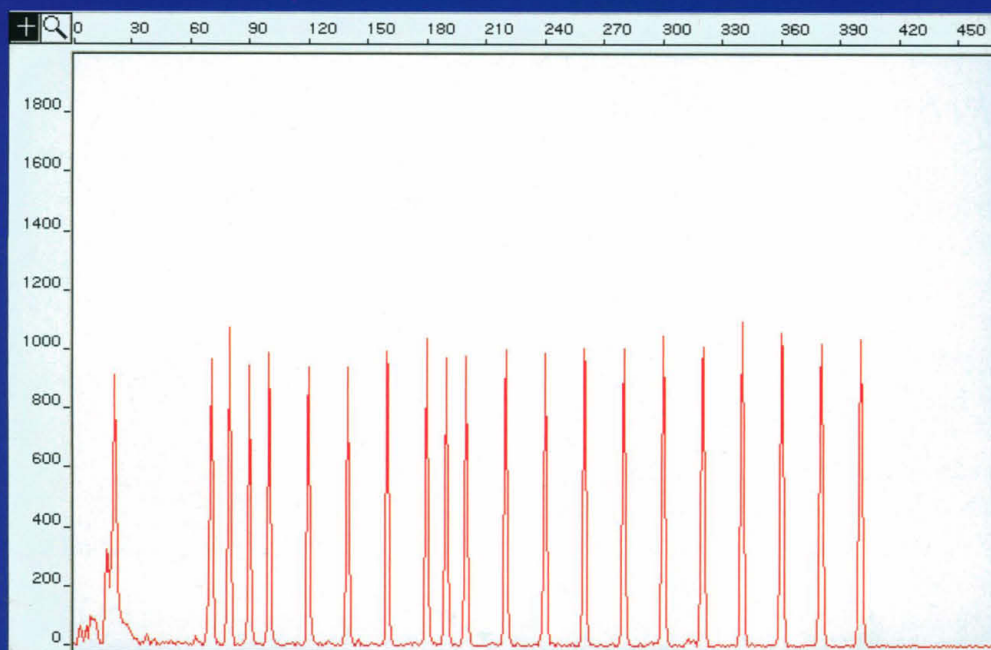
Circle No. 17 on Readers' Service Card

Express Peptides
20mg in 5 days
\$14 per residue
Research Genetics
1-800-533-4363

Circle No. 3 on Readers' Service Card

MAPMARKERSTM

FLUORESCENT DNA SIZING STANDARDS



Example of Rhodamine-X labeled MapMarker 70-400 sizing standard run on ABI model 310 Genetic AnalyzerTM. Marker bands are 70, 80, 90, 100, 120, 140, 160, 180, 190, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400 nucleotides long.

**MapMarkers are compatible with all
fluorescent based separation systems.**

**MapMarkers provide consistent intensities
and migration patterns.**

**MapMarkers are available labeled with
your choice of the most commonly used
fluorescent dyes**

TO ORDER OR OBTAIN INFORMATION TOLL FREE

Circle No. 18 on Readers' Service Card

BioVentures, Inc.

Phone 877-852-7838 FAX 877-286-0322

What does *your* ELISA recognize?

Quantikine® ELISAs recognize the cytokine and nothing else.

Specific - Binding differences may occur between natural and recombinant samples due to conformational changes of the antigen after it is bound to the capture antibody. Quantikine kits are optimized so that antibodies recognize recombinant and natural antigen in parallel.

Precise - Quantikine ELISAs measure with a precision CV of less than 10% and are designed to be precise and reproducible from kit lot to kit lot and from date of manufacture to date of expiration.

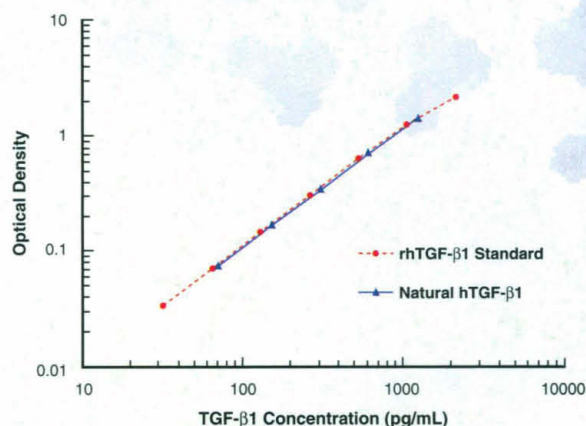
Accurate - Cross-reactivity and interference occurs when other substances modify the antigen-antibody interaction. R&D Systems optimizes antibodies and buffers, and tests possible interfering substances and a panel of over 100 cytokines and cytokine receptors for cross-reactivity.

ELISAs from R&D Systems

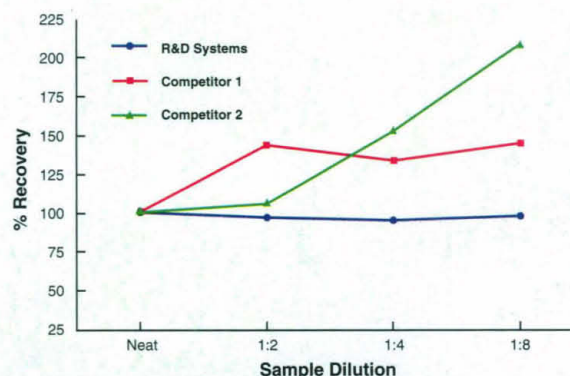
human, mouse & rat cytokine ELISAs

Chemiluminescent ELISAs

Autoantibody ELISAs



A serum sample containing activated human TGF-β1 was serially diluted and compared to the TGF-β1 standard curve. Results show that the Quantikine TGF-β1 ELISA measures recombinant and natural TGF-β1 in parallel.



A serum sample was assayed in the Quantikine sFas ELISA and two competitor ELISAs. Results show that samples recover 100% when diluted in the Quantikine ELISA.

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES.

North America
R&D Systems, Inc.
614 McKinley Place NE
Minneapolis, MN 55413, USA
Tel: 612 379-2956
Fax: 612 379-6580
info@randsystems.com

Europe
R&D Systems Europe Ltd.
4-10 The Quadrant, Barton Lane
Abingdon, OX14 3YS, UK
Tel: +44 (0)1235 529 449
Fax: +44 (0)1235 533420
info@randsystems.co.uk

Germany
R&D Systems GmbH
Borsigstrasse 7
65205 Wiesbaden, Germany
Tel: +49 (0)6122 90980
Fax: +49 (0)6122 909819
info@randsystems.co.uk

Europe Free Phone -
Belgique/België: 0800 10 468
Danmark: 80 01 85 92
France: 0800 90 72 49
Nederland: 060 225607
Norge: 800 11033
Sverige: 020 79 31 49
Switzerland: 0800 55 2482

R&D
SYSTEMS
1-800-343-7475
 www.randsystems.com