### INSTRUMENTATION, APPARATUS, AND LABORATORY MATERIALS

# **NEW PRODUCTS**

### SONICATION WITHOUT PROBE CONTACT

Misonix Cup Homs are high-intensity water baths that allow processing without probe intrusion into the sample and avoid cross contamination and sample loss. Clusters of small test tubes or vials can be sonicated simultaneously with uniform intensity and temperature maintenance. Microtube holders are available to hold tubes in the correct po-

Misonix For more information call 800-645-9846 or circle 143 on the Reader Service Card sition for optimum sonication. Applications include sonicating bacteria and pathogens, preparing liposomes, shearing radioactively labeled proteins and DNA, releasing viruses and cellular material from tissue, gently

disrupting cultured cells, and lysing blood cells and platelets. The Cup Horns eliminate aerosoling, prevent exposure to pathogens, and handle multiple samples. Samples can be continuously cooled and the transparent cup provides full sample visibility. The apparatus accommodates test tubes, microtubes, beakers, and sealed vials.

### MULTI-TISSUE RACE PANELS

Sure-RACE Multi-Tissue RACE Panels enable life science researchers to compare RACE (rapid amplification of cDNA ends) prod-

ucts from among 24 human or mouse tissues simultaneously. Comparison among different tissues enables researchers to discover alternate RNA transciption start sites and identify differentially spliced RNA transcripts. Sure-RACE

OriGene Technologies For more information call 301-340-3188 or circle 144 on the Reader Service Card

can also be used to complete the 5'-end sequences of long and rare transcripts with extensive secondary structure.

### ANTIBODIES

InnoGenex For more information call 877-IGX-INFO or circle 145 on the Reader Service Card In eukaryotes, the cell cycle is regulated by interaction among cyclins, cyclin-dependent kinases, cyclin-dependent kinase inhibitors, and other modulators of cell division and differentiation,

such as certain tumor-suppressor gene products. Well-characterized monoclonal and polyclonal antibodies are now available for the study of these cell cycle-associated proteins by immunohistochemistry, protein immunoblotting, and enzyme-linked immunosorbent assay. In addition, a line of five monoclonal antibodies is available for assessing cell proliferation, which can be useful in studies of cell-cycle regulation, tumor analysis, and other areas of research.

### VACUUM CONCENTRATOR AND EVAPORATOR SYSTEM

The RC10.10 is a centrifugal vacuum concentrator/evaporator designed to evaporate solvents and acids and to rapidly concentrate biological and other samples. The unit combines cen-

Jouan For more information call 800-662-7477 or circle 146 on the Reader Service Card

trifugal force (to prevent bumping and foaming) with high vacuum and heat to remove the solvent. This results in virtually 100%



sample recovery with no contamination. Fifteen different rotors are available to spin everything from Eppendorf tubes to microtiter plates. A glass lid and automatic bleeder valve are included. Aggressive solvents will not crack or fog the lid.

### **STREPTAVIDIN MICROSPHERES**

Six new streptavidin microsphere products can be used in conjunction with a biotinylated macromolecule to provide a highly specific and nearly irreversible linkage to a solid support. Pure streptavidin is covalently bonded to the microspheres, now available

in 1-, 2-, and 6-mm sizes in both plain and fluorescent yellow-green. The streptavidin-coated beads can be used in conjunction with a biotinylated ligand, antibody, DNA, or RNA to

Polysciences For more information call 800-523-2575 or circle 147 on the Reader Service Card form a bridge with the microsphere, providing the simple addition of a solid support. The streptavidin-biotin bond strength approaches that of a covalent bond.

### **CHEMICAL SPILL TREATMENT KITS**

SpillSolv Chemical Spill Treatment Kits, suitable for storage and use in any laboratory, have very high neutralization capacities. The product line includes kits for six kinds of spills: acid, caustic, formaldehyde, mercury, solvent,

EM Science For more information call 800-222-0342 or circle 148 on the Reader Service Card

and multi-purpose. The kits' lightweight containers are portable and wall-mountable. They contain all the necessary neutralizers and equipment to contain most chemical spills.

### LITERATURE

Purification and concentration of DNA and Concentration and buffer exchange of protein solutions are application notes that describe how DNA and proteins can be

Eppendorf
For more
information call
040 5 38 01-239
or circle 149
on the Reader
Service Card

concentrated by defined multiplication factors without the need for additional reagents. Sample recovery in excess of 90% can be achieved with the aid of invertible filter units.

1999–2000 Immunological Reagents for Industry and Research is a catalog that features 4000 monoclonal and polyclonal antibodies,

native and recombinant antigens, and assay development reagents. It includes products specific to apolipoproteins, apoptosis, assay development, cancer markers, cardiac markers, collagens, cytokines, drugs,

Biodesign International For more information call 207-985-1944 or circle 150 on the Reader Service Card

growth factors, foodborne illness, hemostasis, hormones, infectious disease, immunoglobulins, viral antigens, and more.

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

 Troy Benitez
 Kathleen Clark

 Tel: 202-326-6740
 Tel: 202-326-6722

 Fax: 202-289-6742
 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: bdwyer@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

FACULTY POSITIONS. Virology/bacterial pathogenesis. The Department of Microbiology at the University of Texas Southwestern Medical Center is seeking new faculty (TENURE-TRACK) at all levels. Faculty will be expected to develop and/or maintain front-rank, competitive, independent research programs in their chosen fields and contribute to the teaching of medical and graduate students. Attractive recruitment and/or start-up packages are available. For outstanding new Assistant Professors, an Endowed Scholars Program offers a competitive salary, new laboratory space in an attractive and dynamic research environment, and start-up funds of \$600,000 over a four-year period; candidates should have a Ph.D. and/or M.D. degree with at least two years of postdoctoral experience and an exceptional publication record. Some preference may be given to virology candidates with interests in sexually transmit-ted diseases (STDs) (e.g., HSV, CMV, HPV), but all outstanding candidates are encouraged to apply. For bacterial pathogenesis, areas of particular interest include STDs, emerging/re-emerging pathogens, cellular microbiology, and opportunistic infections. Established Investigators should forward a current curriculum vitae and a cover letter; junior candidates should forward a curriculum vitae, three letters of recommendation, two or three representative publications, and a brief summary of future research to: Dr. Michael V. Norgard, Chairman, Department of Microbiology, University of Texas Southwestern Medical Center, 6000 Harry Hines Boulevard, Dallas, TX 75235-9048. FÁX: 214-648-5905. UT Southwestern is an Equal Opportunity University.

### FACULTY POSITIONS ORGANIC CHEMISTRY

Applications and nominations are sought for organic chemistry faculty positions beginning in 2000. Although we expect to make appointments at the AS-SISTANT PROFESSOR level (tenure-track), individuals qualified for appointment at a higher level are also encouraged to apply. Applications should be able to contribute to the teaching program in organic chemistry at the graduate and undergraduate levels and conduct a vigorous independent research program. Research interests complementary to existing faculty and exploiting other campus resources (Center for Chemical Biology, Duke University Medical Center) are particularly sought. All applicants should send a curriculum vitae and a description of future research plans to: Organic Faculty Search Committee, 101 P. M. Gross Chemical Laboratory, Duke Univer-sity, Box 90346, Durham, NC 27708-0346. Junior candidates should arrange for three letters of recommendation to be sent to this same address, and senior candidates should provide names of three potential references. Review of applications will begin on September 1, 1999, and continue until the positions are filled.

Duke University is an Equal Opportunity/Affirmative Action Employer.

The Division of Nephrology and Hypertension of the Department of Medicine at Vanderbilt University is seeking highly talented individuals to fill two available tenure-track positions at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Applicants are sought who have demonstrated ability to perform independent basic research relating to the kidney and are funded by, or competitive for funding by, the NIH. Vanderbilt offers an exciting environment in which to build a successful research career, and these positions provide attractive start-up packages and newly renovated laboratory space. Applicants with M.D., M.D.-Ph.D., or Ph.D. will be considered. Interested individuals with an M.D. should be Boardcertified/Board-eligible in internal medicine and nephrology.

Send letter of interest and curriculum vitae to: Steven C. Hebert, M.D., Director, Division of Nephrology and Hypertension, C-3119 Medical Center North, Nashville, TN 37232-2372.

Vanderbilt University Medical Center is an Affirmative Action/Equal Opportunity Employer.

### POSITIONS OPEN

### TENURE-TRACK FACULTY POSITIONS TRANSLATIONAL RESEARCH Eastman Department of Dentistry University of Rochester Medical Center

The Eastman Department of Dentistry, a clinical department within the School of Medicine and Dentistry, is seeking applications for tenure-track **ASSIS-TANT/ASSOCIATE PROFESSOR** positions from individuals interested in pursuing a translational research career in an academic health center environment. Successful applicants must have significant research training (typically to a Ph.D.) and demonstrate the potential to develop and maintain a high-quality, externally funded, translational research program in some aspect of craniofacial, dental, or oral biology. Strong preference will be given to those individuals who possess a D.D.S./D.M.D. or equivalent and who are cligible to practice dentistry in the state of New York. Applicants at the more senior level would be expected to demonstrate a strong history of reserach accomplishment and extramural funding.

The successful candidates will spend approximately 20 percent of their time in clinically related activities. The remainder of their time will be spent in conducting a vigorous translational research program. Unique facilities within the Eastman Department of Dentistry (website: http://www.urmc.rochester.edu/Dentistry/edd/index.html) include the Salivary Dysfunction Clinic and a Clinical Genetics Clinic. The University of Rochester Medical Center is well known for its highly interactive nature. In addition to the appointment in the Eastman Department of Dentistry, candidates may receive secondary appointments in a traditional basic science department and/or the Center for Oral Biology in the newly formed Rochester Institute of Biomedical Sciences (website: http://www.urmc.rochester.edu/Ribs/). To apply, please send a letter of interest containing

To apply, please send a letter of interest containing a brief summary of research goals, curriculum vitae, and the names of three references to: Lawrence A. Tabak, D.D.S., Ph.D., Senior Associate Dean for Research, School of Medicine and Dentistry, Medical Center Box 611, 601 Elmwood Avenue, Rochester, NY 14642.

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

### ASSISTANT, ASSOCIATE, OR FULL PROFESSOR Department of Physiology and Biophysics University of Arkansas for Medical Sciences

The Department of Physiology and Biophysics at the University of Arkansas for Medical Sciences invites applications for a full-time tenure-track faculty appointment at the level of Assistant Professor, Associate Professor, or Full Professor. The successful candidate will be expected to establish an independent, extramurally funded research program and to participate in departmental teaching programs in the Col-lege of Medicine and the Graduate School. We seek individuals whose research interests complement existing strengths in the department, including protein targeting, receptor regulation, membrane biophysics, intercellular and subcellular signal transduction, cellular/molecular neurobiology, and gastrointestinal physiology. For more information about the department, visit our website: http://www.uams.edu/ physiology. Applicants should submit curriculum vitae, brief statement of research interests, and the names and addresses of three individuals who may be contacted for letters of reference to:

### Michael L. Jennings Department of Physiology and Biophysics University of Arkansas for Medical Sciences 4301 West Markham Street Mail Slot 505

### Little Rock, AR 72205

In order to receive full consideration by the search committee, applications should be received no later than September 10, 1999.

The University of Arkansas is an Equal Opportunity Employer and welcomes applications from women and members of minority groups.



### Director of the Harvard School of Dental Medicine Harvard Medical School Center for Craniofacial Tissue Engineering

The Harvard School of Dental Medicine/Harvard Medical School Center for Craniofacial Tissue Engineering (HCCTE) and the Harvard-Massachusetts Institute of Technology Division of Health Sciences and Technology (HST) seek candidates for the position of Director of the HCCTE.

We seek candidates with background in the interdisciplinary fields of biomedical engineering and/ or biomedical sciences. The ideal candidate would be an academic investigator with interest and experience in education. The HCCTE Director will provide scientific leadership, planning and operational expertise for the Center. The position will be an appointment to the Harvard Faculty of Medicine through the School of Dental Medicine with an affiliation with HST. Other opportunities for collaborations exist in this rich environment, for example, with the Center for Minimally Invasive Therapy (CIMIT).

The Harvard School of Dental Medicine was established in 1867 and is committed to educating and training leaders in the fields of dental and craniofacial diseases. The School has special expertise in reconstructive technology, research, biomaterials and tissue engineering related to craniofacial structures. The CCTE is a joint effort of the School of Dental Medicine and Medical School to facilitate interdisciplinary collaboration in teaching, research and training. The center seeks to mesh engineering and craniofacial biology, developing new and enhancing current research programs in molecular biology, genetics and developmental biology to create a biologic tooth substitute.

HST is a collaborative program established in 1970 between MIT and Harvard University and is now among the largest biomedical engineering and physician scientist training programs in the United States. HST's mission is to foster research and educational programs that integrate science, engineering, and medicine toward the solution of biomedical problems.

Academic rank will be commensurate with background and experience. Qualified individuals should send a curriculum vitae, bibliography and statement of research interests by October 1st to:

Harvard School of Dental Medicine Office of the Dean, Room 115 188 Longwood Avenue Boston, MA 02115

The Harvard University and the Massachusetts Institute of Technology are committed to diversity and are Affirmative Action/Equal Opportunity Employers.

### **CENTER DIRECTOR**

The U.S. Department of Agriculture (USDA) is seeking candidates for the position of Director of Plum Island Animal Disease Center (PIADC) at Greenport, New York. PIADC is the principal USDA laboratory for research and diagnosis of animal diseases which are exotic to the United States. Duties of the Director include direction and coordination of the research and diagnostic programs as well as the overall operation and management of the Center. Research is funded and administered through the Agricultural Research Service (ARS). The Foreign Animal Disease Diagnostic Laboratory is funded and administered through the USDA Animal and Plant Health Inspection Service (APHIS). The Director represents ARS and APHIS in communications in the veterinary and biomedical communities, representatives of other governmental agencies, congressional staff, livestock producers and commodity groups, news media, and the general public, on foreign animal diseases.

The successful candidate will have the D.V.M. or equivalent degree, demonstrated skill in organizing and leading multidisciplinary teams of scientists, and a strong record of personal research accomplishments. A Ph.D. or equivalent degree is highly desirable. This is a Senior Executive Service position with a salary range from \$108K to \$125K, depending on qualifications. U.S. citizenship required. For further information about the position please call Ms. Wilda Martinez at 215-233-6593. For application procedures, call Stacy Aldrich at 301-504-1448 or e-mail saldrich@ars.usda.gov.

Applications must be postmarked by July 15, 1999. Previous applicants must reapply in order to be considered.

USDA/ARS IS AN EQUAL OPPORTUNITY EMPLOYER.

Agricultural United States Research Department of Service Agriculture





The USDA, Agricultural Research Service, Beltsville Agricultural Research Center, Plant Sciences Institute (PSI) in Beltsville, Maryland is seeking an Associate Institute Director, GS-0401-15, \$80,658 - \$104,851 per annum (salary commensurate with experience). Candidates must be U.S. citizens. The position serves as Associate Institute Director, whose function is to manage the research programs, personnel, and budget of the Institute.

The overall mission of the Institute is to develop biological, chemical, and physical processes and principles including bioregulation that will improve pest management systems, improve crop quality, support regulatory and action agencies, respond to research needs identified by farmers and other "customers," and contribute to advances in biotechnology and other societal benefits. This mission is accomplished through fundamental and applied research programs in the 14 PSI laboratories.

For information on the qualification requirements and application procedures, applicants must either call 301-504-1335 and request a copy of the vacancy announcement, number ARS-A9E-9348, or print a full copy from the internet address (www.ars.usda.gov). For additional information on the position, contact Dr. Barbara A. Leonhardt on 301-504-6591. Applications must be postmarked by August 2, 1999, the closing date of the announcement.

USDA, ARS is an equal opportunity provider and employer.



The UNITED STATES ENVIRON-MENTAL PROTECTION AGENCY, National Health and Environmental Effects Research Laboratory, Reproductive Toxicology Division invites proposals for a

### COOPERATIVE AGREEMENT TO DEVELOP A COMPREHENSIVE PARADIGM FOR THE MULTIGENERATIONAL ASSESSMENT OF A DRINKING WATER DISINFECTION BYPRODUCT

NHEERL/RTD employs such tools as biologically based dose-response models of toxicity to assess the developmental and reproductive health risks associated with low-level, chronic exposure to environmental agents. Such risk assessments require toxicological testing that extends beyond the endpoints of routine multigenerational studies. Hence, we are seeking innovative collaborative research projects that incorporate toxicokinetic evaluations; route-to-route extrapolation; and measures of toxicant effects on endocrine regulation, the developing reproductive system, and fertility (via structural and functional assessments of male and female reproductive endpoints). Preference will be given to proposals investigating multigenerational exposure of environmentally relevant brominated haloacetic acids that incorporate novel, but sound, approaches for assessing reproductive effects. Pre-proposals should be 5 to 10 pages in length and describe the proposed model system (including prior application of the model), proposed endpoints, cost estimates, and staff qualifications. Following review of pre-proposals, selected applicants will be asked to submit final proposals, which must be cleared through appropriate institutional review boards. It is anticipated that funding will be \$800,000 (including indirect costs) for a project period not to exceed 3 years. DEADLINE for receipt of pre-proposals is August 20, 1999. For additional information regarding evaluation criteria or to submit proposals: FAX: 919-541-2581; or MAIL: MultiGen Paradigm, c/o Margaret Mann, US EPA/NHEERL/NARMS, MD-85, Research Triangle Park, NC 27711. This solicitation is subject to parts 30 and 40 of Title 40, Chapter 1, Subchapter B of the Code of Federal Regulations, which prohibit profit-making organizations from applying. EPA reserves the right not to make any awards from this solicitation.



A postdoctoral position is available to examine the regulation of DNA replication in fission yeast. Successful applicant will join a highly interactive team that uses genetics, molecular biology, and biochemistry to investigate the role of conserved eukaryotic replication factors in S phase initiation and maintenance of genome integrity. Published experience in yeast genetics, or analysis of chromatin structure, or biochemistry of replicating DNA is a plus. Further information about the lab and its research can be found at http://pingu.salk.edu/~forsburg/lab.html Send CV, relevant reprints, and three references to Dr. Susan L. Forsburg, Molecular Biology and Virology Lab, The Salk Institute, 10010 N. Torrey Pines Rd, La Jolia CA 92037 USA.

### www.salk.edu

The Salk Institute is an Equal Opportunity Employer

# GERON CORPORATION

is a biopharmaceutical company focusing on discovering, developing, and commercializing therapeutic and diagnostic products to treat cancer and other age-related chronic degenerative diseases. Geron is uniquely positioned to pursue this goal given its breakthrough discoveries surrounding telomeres, telomerase, human pluripotent stem cells and nuclear transfer. Geron is currently seeking Staff Scientists, Post Doctorates, and Research Associates in the following areas:

- Medicinal Chemistry
- Assay Development/Screening
- Cell Biology
- Molecular Biology
- Biochemistry/Protein Chemistry
- Diagnostics

Contact: Geron Attn: HR 230 Constitution Menlo Park, CA 94025 www.geron.com FAX: 650/473-7750 E-mail: hr@geron.com

# Growth Discovery

Parke-Davis Pharmaceutical Research, a division of Warner-Lambert, has maintained an outstanding track record of innovation through scientific research to discover drugs for unmet medical needs. Focused on the future, we continue our global success in an environment that recognizes and rewards the individual and team contributions of our diverse colleagues. As we continue to experience rapid growth, we have the following opportunity to join our state-of-the-art research facility in ANN ARBOR, MICHIGAN:

### BIOMOLECULAR STRUCTURE & DRUG DESIGN Postdoctoral Fellowship Job Code: RJB-995962SC

We are seeking a candidate interested in Structural Bioinformatics and Protein Evolution. Key to the research is the elucidation of the evolution of protein sequences and structures in order to maximize knowledge transfer across discovery projects. Additionally, you will create expert annotation for potential drug targets.

The ideal candidate has a deep understanding of protein structure, has performed multiple sequence alignment and homology modeling, and is adept at programming in a UNIX environment (C, C++, Perl preferred). This project is designed to produce results that are publishable without delay. Applicants should have a Ph.D. in Biochemistry, Biophysics, Computational Biology, Structural Biology or a related field.

### IMMUNOLOGIST/CELL BIOLOGIST Senior Scientist

### Job Code: CJM-99478SC

The department of Inflammation Therapeutics has an immediate opening for an innovative research scientist at the Ph.D. level. We are seeking creative applicants interested in applying experience in T cell molecular biology or signal transduction to immunologically-related inflammatory diseases including asthma, transplantation rejection, and arthritis. The desired scientist should be able to initiate unique research projects at the level of cellular or molecular biology, and then apply those projects to animal models of inflammation. In addition, the applicant should also be willing to support ongoing research projects, and work effectively with other members of the department. The candidate will have the opportunity to work closely with excellent Cell Biology and Molecular Biology departments at Parke-Davis. This position requires a Ph.D. and a minimum of 2 years of postdoctoral experience.

### INFLAMMATION THERAPEUTICS Postdoctoral Research Fellow Job Code: CJM-9960450SC

The ideal candidate will study the role of IL-1-induced MAP-Kinases in inflammation and connective tissue destruction associated with osteo- and rheumatoid arthritis. This position requires a Ph.D. and a minimum of 1 year experience as a Postdoctoral Research Fellow. Experience in cellular and molecular biology of cartilage/bone is desirable.

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

www.parke-davis.com Equal opportunity in action. Smoke-free work environment.



### COURSES & TRAINING

### Modeling of Biological Systems An Interdisciplinary Course October 18 – November 23, 1999

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

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

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

Additional information is available at http://www.mbl.edu/MOBS/ .

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

Course Director: Robert B. Silver, Marine Biological Laboratory

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

Application Deadline: August 3, 1999. Course Fee: \$3,750 (room & board is provided). Scholarship support is available.



The MBL is an EEO Affirmative Action Institution

### RESEARCH ASSOCIATE II Boulder, Colorado

BAXTER HEMOGLOBIN THERAPEUTICS, a division of Baxter International, is a world leader in the development of recombinantly produced hemoglobin-based oxygen carrying therapeutics.

The qualified candidate we seek will possess an M.S. in Chemical Engineering, Statistics, Chemistry, Biochemistry, Microbiology or related area, with a minimum 5 years industrial experience in large-scale fermentation and bioprocess technology. Responsible for development, optimization and scale up of recombinant E.coli fermentation as part of a process development team. Position assists with experimental design, process troubleshooting, and translating experimental conditions into operational instructions. Attention to detail and ability to recognize small differences in patterns within large amounts of data is essential, along with familiarity with basics of statistical evaluation. (Job Code: 135)

As a global leader, we offer a very competitive salary and benefits package. Please forward your resume to: Baxter Hemoglobin Therapeutics, Job Code: 135, 2545 Central Ave., Boulder, CO 80301. Fax: 303-541-3345. E-mail: hallkr@baxter.com For more information about Baxter, visit our web site at: www.baxter.com EOE M/F/D/V



PHARMACEUTICAL

3-Dimensional Pharmaceuticals, Inc. is a drug discovery company which has developed a proprietary technology platform uniquely integrating structure-based drug design, combinatorial chemistry, and high-throughput screening for the cost-effective discovery of novel pharmaceuticals. We are currently seeking motivated individuals with excellent communication skills and outstanding qualifications to join our team in the following areas:

### Enzymology

Ph.D./M.S./B.S.-level positions exist for candidates with experience in designing and performing assays for compound characterization (e.g., colorimetric, fluorimetric, ELISA, etc.) and mechanism of action studies with enzymes and/or receptors. Experience with high-throughput assays is a plus. Performance within a multidisciplinary drug discovery team is expected.

### Chemical Compound Archive

Associate needed to coordinate archiving thousands of chemical compounds. Training beyond high school in chemistry or biochemistry and familiarity with computer database are expected. Experience with automated liquid handling equipment is a plus.

Located in Exton, PA, 3DP offers a comprehensive compensation and benefits package. Qualified individuals are invited to send their cover letter (indicaing position desired) and resume with contact data for three references before August 15, 1999 to:

3-Dimensional Pharmaceuticals, Inc. Attn: Human Resources 665 Stockton Drive, Suite 104 Exton, PA 19341





For more information contact: USA: BREN PETERS Ph: (202) 326-6541 • Fx: (202) 289-6742 E-mail: science\_classifieds@aaas.org

Europe: DEBBIE CUMMINGS Ph: +44 (0) 1223 326500 • Fx: +44 (0) 1223 326532 E-mail: european\_ads@science-int.co.uk

ACADEMIC CONNECTIONS Science's online graduate program index

www.scienceonline.org Click on *Science* Careers, then click on Academic Connections.

Science

# VIRXSYS

VIRxSYS is a start-up biotechnology company located at Gaithersburg, Maryland. The company has two issued patents encompassing novel Lentivirus vectors to combat HIV, cancer and hematologic diseases. The following positions are currently available.

**Senior Scientist:** Ph.D. level scientist with several years of experience in hematopoietic stem cell gene therapy.

**Scientist:** M.S. or B.S. level scientists with extensive molecular biology experience or recent Ph.D. level scientists with backgrounds in cellular and molecular biology.

Applicants should send their CV and the names of three references to:

Human Resources VIRxSYS Corporation 200 Perry Parkway Gaithersburg, MD 20877 phone: (301) 987 0480 fax: (301) 987 0489 e-mail: info@virxsys.com



# Be an NCI Cancer Prevention Fellow

THE NATIONAL CANCER INSTITUTE (NCI) sponsors the Cancer Prevention Fellowship Program (CPFP). Its purpose is to train individuals from a multiplicity of health and biomedical science disciplines in the field of cancer prevention and control.

### What will I get out of the program?

- Master of Public Health degree
  Cancer Prevention and Control
- Summer Academic Course
- Mentored research at the NCI
  Brief field assignments at other institutions

Research opportunities include chemoprevention, clinical epidemiology, diet, nutrition and other lifestyle factor studies, evidencebased decisionmaking, intervention studies, outcomes research, special populations, screening and early detection (including genetic and other biomarkers), smoking cessation, social and behavioral research, statistical and epidemiological methodology, and translational research.

### Am I eligible?

You must have a doctorate degree (MD, DDS, DO, PhD or equivalent) from a U.S., territorial or Canadian institution. Foreign medical graduates must have current USMLE or ECFMG certification. You must also be either a citizen or resident alien of the U.S. eligible for citizenship within 4 years.

### How long is the program?

Fellows are accepted for up to 5 years of training beginning in July.

### When are applications due?

Applications are due September 1, 1999 for entry into the program the following July 1, 2000.

### How do I apply?

To receive a catalog\*, contact: Douglas L. Weed, M.D., M.P.H., Ph.D. Director Cancer Prevention Fellowship Program National Cancer Institute Executive Plaza South, Suite T-41 6130 Executive Blvd MSC 7105

Bethesda MD 20892-7105

\*Please provide home address and where you heard about the program.

*Further inquiries:* Mrs. Barbara Redding (301) 496-8640 Fax (301) 402-4863 E-mail br24v@nih.gov

Visit our Web site at: http://dcp.nci.nih.gov/cpfp/

### The newly established Program in Structural Biology in the Division of Basic Science, at the National Cancer Institute is expanding its research base and will recruit personnel for two new research groups and a core facility. Scientists within the Program will have access to the most modern instrumentation in crystallography, NMR, biophysics, and molecular biology. Collaborative interactions both within NCI and with outside scientists will be strongly encouraged. The following positions are now open:

### PROGRAM IN STRUCTURAL BIOLOGY AT THE NCI

### Tenured Principal Investigator in Synchrotron Radiation Crystallography

The incumbent will be permanently based at the National Synchrotron Light Source, Brookhaven National Laboratory, Upton, NY. In addition to conducting his/her own independent research, preferably in the field of application of anomalous dispersion for phasing macromolecular diffraction data and in investigating protein structures at extremely high resolution, the incumbent will be responsible for the operation of the shared beamline X9B for protein crystallography, on behalf of the NIH Synchrotron Consortium. This Ph.D. position will offer a salary commensurate with education and experience. In view of the high level of appointment, candidates must be internationally known with a strong publication record in peer-reviewed journals and a significant history of accomplishments in both basic research and in the operation of a multi-user synchrotron facility. Applications must be received not later than 30 July 1999.

### Tenure-track Principal Investigator in NMR of Nucleic Acids

The incumbent will establish a new group applying NMR techniques to investigate the structural biology of nucleic acids and their complexes with proteins. Excellent instrumentation (500, 600, and 800 MHz spectrometers) is available, and adequate space and startup funds will be provided to establish the laboratory. Candidates with Ph.D. and/or M.D. degrees should have demonstrated performance in the area of NMR and nucleic acid structural biology. Applications must be received not later than 31 August 1999.

### Program Core Staff Scientist (Biophysics)

The Program Core provides support in molecular biology and biophysics to a number of groups in crystallography, NMR, and chemistry. Currently available Core biophysical instruments include an HPLC/electrospray mass spectrometer, CD and fluorescence spectrometers, and microcalorimetry equipment. Other instruments will be added in due course. The incumbent will provide day-to-day oversight of the instrumentation and expertise in the use of the equipment, and will advise members of PSB about methods and opportunities of biophysical measurements. The appointment will be made at a Staff Scientist level. The incumbent will have a Ph.D. degree in chemistry, biochemistry, or biophysics with a demonstrated expertise in physical measurements. Applications must be received not later than 30 July 1999.

### Postdoctoral Fellows in protein crystallography and NMR

Several openings are anticipated for recent or prospective Ph.D. scientists with experience in either of the above techniques and/or protein engineering. Successful candidates will join the new or existing groups in the Program. Applications will be accepted with no formal deadline, until positions are filled.

More information about the current Macromolecular Structure Laboratory (which will be transformed into the Program) can be found on the World Wide Web at http://nmrweb.ncifcrf.gov/abl/msl/index.html. Please send all correspondence to **Mr. John Barone, Search Committee Executive Secretary, National Cancer Institute, Bldg 576, Room 100A, Frederick, MD 21702**. All candidates need to

include a letter of interest, a curriculum vitae and arrange for three letters of recommendation to be sent directly to the Executive Secretary. Principal Investigator candidates should also include a one – two page statement of research interests and goals, and copies of their three most significant publications.

The National Cancer Institute is an Equal Opportunity Employer.

THE NATIONAL CANCER INSTITUTE IS AN EQUAL OPPORTUNITY EMPLOYER.

### PENN<u>State</u>



### ASSOCIATE DIRECTOR, PATHOLOGY AND IMAGING CORE LABORATORY

A full-time junior faculty member is sought to direct the Pathology and Imaging Core Facility at the Weis Center for Research. Qualified candidates will have a Ph.D., D.V.M., M.D. or equivalent degree with 3 or more years of postdoctoral experience in cell biology, molecular biology and experimental pathology using immunostaining and computer assisted morphometric analysis. Experience with confocal microscopy and electron microscopy is highly desirable. Candidates must show clear evidence of academic achievements and competence in pathologic evaluation of cardiovascular tissue. In addition to directing the core laboratory, the individual will carry-out independent research and interact with other members of the cardiovascular pathology, physiology, molecular biology and biochemistry programs of the Center.

The Weis Center for Research is a modern research facility located on the Danville campus of The Pennsylvania State University College of Medicine. The Center is adjacent to the Geisinger Medical Center. It is located in a pleasant, semi-rural living environment with convenient access to the major metropolitan areas of New York and Baltimore. Interested individuals should send their curriculum vitae and the names of

Interested individuals should send their curriculum vitae and the names of three references to:

Stephen F. Vatner, M.D. c/o Mrs. Barbara A. Brown Administrative Assistant, Box S-5197 Henry Hood Research Program (SFV) Sigfried and Janet Weis Center for Research 100 North Academy Avenue Danville, PA 17822-2601

Penn State is committed to affirmative action, equal opportunity and the diversity of its workplace.

### MACROMOLECULAR CRYSTALLOGRAPHER College of Basic Sciences Louisiana State University

Applications are invited from all faculty ranks for a position in Xray crystallography. The applicant will study the structure and function of biological macromolecules, and will have full access to a crystallography facility being constructed by a consortium of universities at LSU's synchrotron radiation source, the Center for Advanced Microstructures and Devices (CAMD). The X-rays are generated by a superconducting wiggler, and provide a bright source of hard X-rays. The facility will consist of a complete beamline and end-station optimized for state-of-the-art MAD experiments (multiwavelength anomalous dispersion). The candidate will join a wellfunded faculty using well-equipped facilities to conduct research on protein structure and function, structural biology, and materials science, and will hold an academic appointment in either the Department of Chemistry or the Department of Biological Sciences, depending on research interests. Salary, rank, and tenure status will be commensurate with the candidate's qualifications and some teaching will be required. Applicants must have demonstrated proficiency in X-ray crystallography, and preferably a track record of federal funding and publications. Evaluation of applications will begin on August 20, 1999, and will continue until the position is filled. Send a cover letter, curriculum vitae, statement of research interests, and the names and email addresses of five references to:

Dr. Kenneth M. Brown, Associate Dean College of Basic Sciences Ref. Log #1386 Louisiana State University Baton Rouge, LA 70803-1725 Email: Kmbrown@lsu.edu LSU IS AN EQUAL OPPORTUNITY / EQUAL ACCESS EMPLOYER



### MAYO CLINIC POSTDOCTORAL FELLOWS AND TECHNOLOGIES LENTIVIRUS RESEARCH, GENE THERAPY

Postdoctoral scientist and technologists required for a new lentiviral research initiative within the Mayo Clinic Molecular Medicine Program, a recently established program with several groups of virologists working collaboratively to develop clinically useful gene transfer systems and to study viral pathogenesis. Successful candidates will join the group of Dr. Eric M. Poeschla to develop novel feline immunodeficiency virus (FIV)- and HIV-based lentiviral vector systems or to conduct innovative studies of HIV pathogenesis. Projects to be conducted in new, state-of-the-art virology research facilities include enhancement of lentivector system efficiency and safety, creation of packaging cell lines, testing in animal models, including gene-altered hematopoietic stem cell reconstitution, improving strategies to achieve sustained gene expression in vivo, and studies of viral/cellular dynamics in HIV disease and chemokine receptor use by human and animal lentiviruses. Molecular virological and/or HIV research background desirable but motivated applicants with advanced molecular biology backgrounds are invited to apply. Experience in working with hematopoietic progenitor cells in immunodeficient mouse models is sought for one individual to be hired Excellent salary benefits commensurate with experience synergize with low cost of living and pleasant, small city living environment. Send curriculum vitae and names of three references to:

Dr. Eric Poeschla Molecular Medicine Program & Division of Infectious Diseases-Guggenheim 18 Mayo Clinic 200 1st St. SW Rochester, MN 55905 e-mail: <u>emp@mayo.edu</u>

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

# CHAIR

### Department of Biological Sciences University of Idaho

The University of Idaho invites applications for the Chair of the Department of Biological Sciences. We are seeking candidates who are leaders of a nationally recognized research program. The Department of Biological Sciences consists of 15 tenure-track faculty with vigorous research programs in a wide variety of biological sciences, but with an emphasis in reproductive and evolutionary biology. This position will include resources for recruiting four tenure-track faculty, funds for renovation of lab space and competitive start-up funds. The chair will be expected to provide leadership to a currently strong department, enhance its Ph.D. and M.S. graduate programs, and complement the major research initiative within the University's Strategic Plan.

The University of Idaho is the State's Land Grant University with over 13,000 students. Strong undergraduate and graduate programs are coupled with nationally recognized research and scholarly activities. There are more than 750 faculty engaged in teaching and research. The University of Idaho is located within minutes of Washington State University and there are active research and teaching collaborations between the two institutions.

Applications will be accepted until September 15, or until a suitable candidate is found, and should consist of a curriculum vitae, personal statements of research and teaching plans, leadership style, and the names of three references. Send to:

Dr. Michael Laskowski, Chairperson Biological Sciences Chair Search Committee Department of Biological Sciences University of Idaho Moscow, ID 83844-3051 http://www.uidaho.edu/LS/BioSc/

To enrich education through diversity, the University of Idaho is an equal opportunity / affirmative action employer.





Genentech, Inc.

incredible people

At Genentech, we are conducting tremendous research in the functional Genomics and Proteomics fields. To continue this groundbreaking work, we need individuals with outstanding track records for management and senior-level positions within our Research Department. If you're a highly talented, qualified and thoroughly dedicated scientific professional, then we invite you to share your traits with us.

### Senior Scientist/Associate Director-Molecular Biology

Working within our Molecular Biology organization, you will become an integral member and group leader in our Functional Genomics program, which is responsible for the discovery, cloning, expression and evaluation of novel human genes. To be successful, you must possess a PhD and 3 years post doc experience in Molecular Biology, Genetics or a related field, as well as 3-10 years of accomplishment in genomic discovery and technology. You should possess a strong background in a broad range of molecular biology techniques utilizing genomic approaches for new gene discovery. Excellent communication skills are also essential to this highly collaborative role. We are particularly interested in individuals with experience in the development of viral-based gene delivery (retrovirus, adenovirus or AAV) systems. Job Code SCI1240

### **Director/Sr. Scientist-Protein Chemistry**

We are also seeking an experienced individual to provide leadership to the Protein Chemistry Department. This individual will manage research associated with protein chemistry, including purification, analysis, identification and technology development. This position requires a PhD in Chemistry or related area and 10+ years experience. Strong organizational, communication and management/leadership skills, plus excellent collaboration abilities are also necessary. Demonstrated success in the area of Proteomics is highly desirable. Job Code SCI612

We offer industry-leading benefits. Send your resume, indicating appropriate Job Code, to: Genentech, Inc., Human Resources, PO Box 1950, South San Francisco, CA 94083-1950. Please use plain typefaces. You may email your resume, again indicating appropriate Job Code, to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). We cannot accept faxed resumes. Genentech is an Equal Opportunity Employer.



extraordinary science



# **Director, Division of Immunobiology**

Cincinnati Children's Hospital Medical Center/ University of Cincinnati College of Medicine is seeking a director for a new Division of Immunobiology, to be located in the Children's Hospital Research Foundation. Candidates may be either MDs or PhDs and must have a strong background in immunobiology, as well as a proven track record of extramural funding. Resources are available to build a research division of six to eight faculty. The new division also will be expected to provide academic leadership in immunology research and teaching at Cincinnati Children's Hospital Medical Center and the University of Cincinnati College of Medicine.

Children's Hospital Medical Center is an Affirmative Action/Equal Opportunity Institution. Women and minorities are encouraged to apply.

### Join a National Leader

Cincinnati Children's Hospital Medical Center is one of the nation's top pediatric care and research institutions. The Children's Hospital Research Foundation ranks third nationally in NIH funding to full-service children's hospitals. In 1998, sponsored program awards exceeded \$37 million. Laboratory space is growing from 405,000 to 525,000 square feet with a new addition to be completed in 2001.

Successes include the Sabin oral polio vaccine and an understanding of lung surfactant proteins, both used worldwide. Major research programs apply the newest approaches, including the use of transgenic mice and gene targeting, to problems ranging from the molecular mechanisms of embryonic development to gene therapy.

Our medical and research staff comprise the Department of Pediatrics at the University of Cincinnati College of Medicine. We train more than 300 residents and postdoctoral physicians and researchers each year.

# To Apply

Send CV and two letters of recommendation to:

David N. Glass, M.D., Children's Hospital Medical Center 3333 Burnet Avenue • Cincinnati, OH 45229-3039 • E-mail: glasd0@chmcc.org

### PENNSTATE



### FACULTY POSITIONS Sigfried and Janet Weis Center for Research Henry Hood Research Program

Outstanding scientists are sought for faculty positions in the Weis Center for Research located on the Danville campus of The Pennsylvania State University College of Medicine. The center is adjacent to the Geisinger Medical Center, one of the two major teaching hospitals of the Penn State Geisinger Health System. The Center is a modern research facility that includes 65,000 square feet of laboratories, offices, animal facilities, and research conference areas. It is located in a pleasant, semi-rural living environment with convenient access to the major metropolitan areas of New York and Baltimore.

We are seeking candidates interested in participating in an interactive program focused on Biophysics, Cellular Signaling, and Genetics/Genomics. The successful candidates will participate in the formulation of the new Department of Integrative Molecular Medicine and Genetics that is to be established in Penn State's College of Medicine, and is to be based primarily at the Danville campus.

We seek candidates with an outstanding record of research accomplishments. It is preferred that the candidates' areas of expertise complement existing strengths in cell and molecular biology, and have a genetic component to their research. Substantial resources are available for start-up funds for the new Faculty as well as access to core facilities of the Department.

Interested and qualified individuals are encouraged to send their curriculum vitae, statement of research and teaching interests, and the names, addresses and telephone numbers of four references by September 1, 1999, to: Stephen F. Vatner, M.D., c'o Mrs. Barbara A. Brown, Administrative Assistant, Box S-5198, Sigfried and Janet Weis Center for Research (SFV), 100 North Academy Avenue, Danville, PA 17822-2601.

Penn State is committed to affirmative action, equal opportunity and the diversity of its workplace.

BioCrest Manufacturing, a subsidiary of Stratagene—a leader in the development and manufacture of molecular biology research products—is seeking the following qualified individual for our Bastrop, Texas facility.

### BIOLOGICAL PROCESS IMPROVEMENT SCIENTIST

You will be responsible for root cause analysis of product quality issues and manufacturing process inefficiencies, as well as designing/implementing experiments to identify solutions and validating/implementing improvements to current manufacturing procedures. You will troubleshoot and improve current production protocols to increase yields, reproducibility and product reliability. Requirements include a PhD in Molecular Biology, Biochemistry or Chemistry, 1 year of postdoc experience or 8 years of relevant laboratory experience, as well as strong writing skills. Expertise in libraries, hosts and vectors preferred.

Candidates interested in the above position should send resume to: BioCrest Manufacturing, c/o STRATAGENE, Attn: RA-99A, 11011 N. Torrey Pines Rd., La Jolla, CA 92037. Drug and alcohol testing required. No phone calls, please. AA/EOE.



### HUMAN GENETICS RESEARCH

The HUMAN GENETICS RESEARCH PROGRAM at the Cleveland Clinic Foundation has vacancies for faculty as part of a phased expansion. The broad emphasis of this program is to combine molecular and traditional genetic approaches for the identification and characterization of genes promoting the development of human disease. Positions are currently available in the following areas:

### Division of Ophthalmology (J.G. Hollyfield, Research Director)

Family and/or population based molecular genetics of age-related macular degeneration. Knowledge of the genetics of eye/retinal disease would be an advantage but is not essential.

### Center for Molecular Genetics (J.K. Cowell, Director)

We are seeking applicants with an active molecular genetics program investigating clinically relevant disorders. Any field of study will be considered within this broad category.

### Neuro-oncology Research Program (J.K. Cowell, Director)

Candidates should have an interest in translational aspects of brain tumor research. Although all aspects of brain tumor development will be considered, individuals with a special interest in angiogenesis are particularly encouraged to apply.

Outstanding organizational skills are required, as the successful candidates will be expected to use the abundant clinical material available at the Cleveland Clinic Foundation as a research resource. It is also expected that the candidates will develop a research program that will be competitive for NIH support. Excellent salary and benefits along with generous start-up funds for equipment, supplies, and personnel are available. Salary and rank are open and dependent upon the background and experience of the candidates.

Send curriculum vitae, a statement of research training and interests, a selection of reprints, and three letters of recommendation to:

Human Genetics Search Committee Lerner Research Institute/NB20 9500 Euclid Avenue Cleveland, OH 44195

### The Cleveland Clinic Foundation

The Cleveland Clinic Foundation is an equal opportunity, affirmative action employer.

Merck Research Laboratories in Rahway, New Jersey, a world leader in biological and pharmaceutical research, currently has a postdoctoral position available in the Department of Metabolic Disorders.

# Metabolic Disorders Postdoctoral Fellow

The major focus of our group is the regulation of food intake and energy metabolism. The ideal candidate should be a highly motivated, innovative scientist with expertise in molecular biology/ genetics, neuroscience and transgenic mice. The program is aimed to generate transgenic/knockout mice that can be used to evaluate and validate new targets for treatment of obesity and diabetes.

Merck offers opportunities to conduct top-level science and pleasant working conditions at our Rahway, NJ facility, approximately 25 miles from New York City. For consideration, send your resume/CV and cover letter to: Merck Research Laboratories, MRL Human Resources, P.O. Box 2000, AD #95, RY80-A3, Rahway, NJ 07065. EEO/AA/VH Employer



# POSTDOCTORAL FELLOWSHIPS

DNAX Research Institute, located near Stanford University, carries out basic research in Immunobiology and Cancer Biology in an open, academic environment. Our Postdoctoral Fellowship Program is an important feature of the research program at DNAX, representing approximately 25 percent of the Institute's scientists. Fellows who come to DNAX are entirely supported by the Institute and are provided an environment to conduct basic research. We currently have several openings for postdoctoral fellows in our newly expanded Cell Signaling/ Oncology Department in the following laboratories.

**Dr. David Parry** is establishing a new laboratory to study tumor suppressor proteins and their role in cell cycle regulation. Areas of interest include:

- The ARF/INK4A tumor suppressor locus;
- The D-cyclin/p16/pRB pathway.

**Dr. Bruno Amati is also organizing a new laboratory to study oncogenic and cell cycle regulatory pathways in mammalian cells. Areas of interest include:** 

- The function of the c-myc and E1A oncoproteins in cell cycle control;
- The function and regulation of the CDK inhibitor p27 (Kip1) by upstream signals;
- Biological functions of cyclin E/cyclin E2.

**Dr. Ronald Herbst** studies the role of protein kinases and phosphatases in cell transformation. His areas of interest include:

- The MMAC1/PTEN tumor suppressor gene encoded phosphatase;
- The function of AKT kinases in cell survival.

**Dr. Emma Lees** studies the molecular mechanisms of cell cycle regulation. Her areas of research interest include:

- Regulation of transcription and chromatin structure by the cell cycle machinery;
- Novel cyclin/CDK complexes and their role in cell cycle;
- The role of kinases in checkpoint controls.

Candidates for the above positions should have an extensive background in molecular biology and biochemistry, a broad interest in cancer biology, and a strong commitment to working in a competitive and dynamic research field. To apply, send a *curriculum vitae*, statement of research interest, and the names of three references to: DNAX Research Institute, Human Resources Department, 901 California Avenue, Palo Alto, CA 94304. DNAX is an equal opportunity employer, m/f/h/v.





### Your Contributions

Matter

What really matters is the quality of health care that we can deliver by working together as a team. With more than 30,000 dynamic employees operating in over 100 countries, Pharmacia & Upjohn is able to develop some of the most advanced and effective medicines in the industry. Our **Kalamazoo, Michigan** research facility is committed to develop innovative therapeutic agents to treat Metabolic, Oncology, Infectious and Central Nervous System diseases. Our research philosophy values creativity, scientific rigor, teamwork, and personal/professional satisfaction. We invite you to be an integral member of our scientific team.

BS/MS CRYSTALLIZATION BIOCHEMISTS – We seek 2 highly motivated associate scientists to join our drug discovery effort in structure-directed drug design. As part of the macromolecular crystallography group, you'll purify and prepare protein samples and develop crystallization strategies for new protein targets and protein-ligand complexes. Requires: experience in protein purification and crystallization of macromolecules; a BS/MS in Biochemistry or related field; and a minimum 2-3 years directly related laboratory experience. *Position #'s 990377-KM and 990380-KM* 

**BS/MS NMR SPECTROSCOPIST** – We seek an associate scientist to focus on the development and application of flow NMR techniques to monitor binding of small molecules to proteins. Responsibilities include small molecule library development and maintenance, protein sample preparation, data collection, data analysis and data archiving. Requires a BS/MS in Chemistry or Biochemistry with experience in NMR spectroscopy and protein chemistry or medicinal chemistry. *Position # 990379-KM* 

**BS/MS NMR SPECTROSCOPIST** – We seek an associate scientist to assist in a variety of NMR projects, including characterization of the 3D-solution structure of protein targets and protein/ligand complexes. A portion of the candidate's time will be utilized to support combinatorial chemistry with high resolution magic angle spinning (HRMAS) for solid phase synthesis and flow NMR to support solution phase studies. Requires a BS/MS in Chemistry or Biochemistry and knowledge of fundamentals/principles of NMR spectroscopy. Solid knowledge of NMR spectroscopy data collection techniques, including multi-dimensional experiments, the use of pulse field gradients and shaped pulses, data processing/analysis a plus. *Position # 990367-KM* 

**BS/MS PROTEOMICS BIOCHEMIST** – As a member of a core mass spectrometry resource, the associate scientist will conduct research aimed at facilitating the discovery and development of medicinal agents by assisting in research projects involving proteomics techniques. Projects will involve performing 2D gel electrophoresis, gel image analysis, sample preparation, and MALDI-tof and ESI HPLC-tandem mass spectrometry. Requires a BS/MS in Biochemistry or related field and a minimum 2-3 years directly related laboratory experience. *Position # 990394-KM* 

Make a difference in your life with a career at Pharmacia & Upjohn. Meet our high expectations and enjoy a highly competitive salary and benefits package along with the prestige of working with a leading organization. Forward resume with salary history, *indicating appropriate Position #*, to: PHARMACIA & UPJOHN, 7000 Portage Road, Position #\_\_\_\_\_, Kalamazoo, MI 49001. E-mail: recruit@am.pnu.com (no attachments please). An equal opportunity employer, we value a diverse combination of ideas, perspectives, and cultures.

Pharmacia&Upjohn

**Each Patient Matters** 

Visit us at www.pnu.com



Roche Molecular Systems, Inc., is a worldwide leader in research, development, and manufacturing of molecular diagnostic reagents. We have an exceptional opportunity for a Principal Scientist in our Manufacturing Operations area participating in the purification and characterization of r-DNA derived enzymes for use in our products; facilitating the transfer of new products and processes from Research to a manufacturing environment; and contributing to our operations in a fast-paced, team-oriented environment.

The successful candidate will have a M.S. in Biochemistry, Molecular Biology, or equivalent, with 5-8 years of experience; or Ph.D. with several years of experience in a biotechnology production area. Expert knowledge of all phases and strategies for enzyme purification and characterization is required. Working knowledge of cGMPs, QSRs and ISO requirements is essential. Ability to prepare manufacturing documents and coordinate/implement production schedules is necessary. Strong problem-solving and verbal/written communication skills are required. Familiarity and experience with production planning is preferred. Process scale-up experience is highly desirable.

We offer a competitive salary, generous benefits package, and a state-of-the-art environment that is conducive to professional success. For consideration, please forward your resume and salary requirements (which must be included) to: Roche Molecular Systems Inc., Human Resources Dept. GMK, Branchburg Township, 1080 U.S. Highway 202, Somerville, New Jersey 08876-3771. We are an equal opportunity employer m/f/d/v.



# Roche Roche Molecular Systems Inc.

A Member of the Roche Group

# PENNSTATE

College of Medicine

### **TENURE-TRACK FACULTY POSITION** MOLECULAR ELECTROPHYSIOLOGY

A full-time faculty member is sought to join a growing cardiac electrophysiology group at the Weis Center for Research.

The successful candidate will interact with physiologists in structure-function studies relating disease models to changes in electrical and contractile activity. Areas of interest include quantitative electrophysiological analysis of all aspects of calcium homeostatsis, and molecular biology of ion channels.

The Weis Center for Research is a modern research facility located on the Danville campus of The Pennsylvania State University College of Medicine. The Center is adjacent to the Geisinger Medical Center, one of the two major teaching hospitals of the Penn State Geisinger Health System. It is located in a pleasant, semi-rural living environment with convenient access to the major metropolitan areas of New York and Baltimore.

Interested individuals should send their curriculum vitae and the names of three references to:

> Stephen F. Vatner, M.D. c/o Mrs. Barbara A. Brown Administrative Assistant, Box S-5196 Henry Hood Research Program (RLR) Sigfried and Janet Weis Center for Research 100 North Academy Avenue Danville, PA 17822-2601

Applications will be accepted until position is filled.

Penn State is committed to affirmative action, equal opportunity and the diversity of its workplace

### POSTDOCTORAL POSITION MAYO CLINIC ROCHESTER, MINNESOTA

A position is available for a postdoctoral fellow with an interest in the molecular mechanisms of cancer development in the Department of Pediatrics. Major emphasis will be on cell-cycle control and regulation of gene expression. Individuals with a strong background in biochemistry or molecular biology, and experience or interest in the use of knockout animals are encouraged to apply. Salary will be determined by the successful candidate's experience. There is also an attractive benefit package. Mayo Foundation is a non-profit physician lead clinical practice integrated with education and research in a unified multi-campus system. Applications including a curriculum vitae, summary of past accomplishments and the names of three references should be sent to:

Jan van Deursen, Ph.D. **Mavo** Clinic Pediatric and Adolescent Medicine Guggenheim 10 200 First St. SW Rochester, MN 55905 e-mail: vandeursen.jan@mayo.edu

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



Ceres, Inc. is a Malibu-based functional genomics company applying high-throughput technologies to the discovery of novel gene sequences for the improvement of agricultural crops. We are looking for creative and motivated individuals to fill the following positions at our state-of-the-art facilities overlooking the Malibu coast:

### Senior Positions

Each requires Ph.D. in biological sciences, with good managerial and interpersonal skills.

Molecular Biologist - Gene Expression Profiling (Ref: GEP). Experience with gel-based gene expression profiling or PCR-based assays.

Plant Biochemist/Physiologist (Ref: BIO). Experience in physiology and/or molecular biology.

Developmental Biologist (Ref: DEV). Experience in plant reproductive biology. Knowledge of large DNA manipulation, gene mapping or plant transformation would be an advantage.

Geneticist (Ref: GEN). Experience in plant or yeast genetics.

### <u>Junior Positions</u>

Each requires MS or BS in biological sciences.

Molecular Biologists (Ref: MOL). Experience with RNA, recombinant DNA, sequencing or plant transformation.

Plant Biologists (Ref: PBIO). Knowledge of plant biology. Experience with biological screens and/or plant morphology would be an advantage.

Individuals with experience in non-plant systems are encouraged to apply for both senior and junior positions.

In addition to medical benefits and 401K, Ceres also offers equity participation. Qualified candidates should submit their CV and the names of three references (indicating the Ref Code) to: Human Resources Manager, Ceres, Inc., 3007 Malibu Canyon Rd, Malibu, CA 90265. FAX 310-317-8998.

# The Future is Here!

ffymetrix is dedicated to developing state-of-the-art technology for acquiring, analyzing and managing complex genetic information for use in genomics, clinical research, disease management and pharmacoge-nomic studies. As the creators of GeneChip® technology, Affymetrix represents an exciting future in expression monitoring, polymorphism screening and disease management. We seek experienced individuals for the following opportunities.

### Senior Scientist/Manager

You will develop genome mapping, gene expression monitoring, and general DNA analysis methods using high-density oligonucleotide probe arrays, as well as develop methods of sample preparation, probe design, and data analysis. You will conceive and develop supporting technologies for these new DNA probe array applications in fields such as molecular biology research, genetics, medical diagnostics, etc. Requires a PhD in Biophysics, Biochemistry, Genetics, Molecular Biology or related field and a minimum of 8 years relevant experience in DNA/RNA and standard molecular biology procedures and concepts. Experience with mammalian genetics, especially mapping and linkage analysis methods, and with cancer, tissue typing and/or pharmacology is highly desirable. Background in diagnostic assay development is preferred. Demonstrated leadership/supervisory talents, project management experience and excellent written and oral communication skills will be expected. Job Code SCI-ATR246

### **Staff Scientist**

If you enjoy taking a rigorous approach to science and are interested in contributing to cutting edge technology in genomics research, this could be the opportunity for you! Acting as a scientific liaison with collaborators, customers and internal departments, you will manage external interactions, analyze results, troubleshoot problems, and support GeneChip expression analysis and genotyping products. You will also participate in discovery and development research using Affymetrix probe arrays. Along with a PhD in Molecular Biology, Biochemistry, Genetics or a related field, you will need a minimum of 3 years relevant experience in DNA/RNA procedures and standard molecular biology concepts. A proven research and publication record, strong analytical/computational skills, and an understanding of the physical chemistry of biological macromolecules are musts. Experience in genomics research and the analysis of large data sets is a plus. Excellent written/verbal communication, organizational and computer skills, plus the ability to work effectively with various personality types will be crucial to this role. Job Code SCI-ACH292

For consideration, please mail, fax, or email your resume, indicating Job Code, to: Affymetrix, Human Resources, 3380 Central Expressway, Santa Clara, CA 95051. Fax: (408) 481-0422. Email: hr@affymetrix.com. We are an equal opportunity employer. See our website at www.affymetrix.com.



### **American Medical Association**

Physicians dedicated to the health of America



The American Medical Association, has been the nation's largest and most influential physician member organization for over 150 years. To continue this reputation, we're seeking:

### SENIOR SCIENTIST Science, Research and Technology

This individual will implement activities and programs related to medical technologies, with emphasis on technology assessment and regulation. Responsibilities also include establishing our Technology Assessment resource program, preparing policy reports and reviews, developing educational strategies to optimize physician knowledge of medical technologies, and providing scientific expertise within the AMA on medical technologies.

This successful candidate must have a doctoral level degree in health services research, health economics or other medically related disciplines along with exp. in technology assessment and post-doctoral experience and publications. Other requirements include polished speaking and interpersonal abilities and excellent analytical, organizational and writing skills. (Dept. SDA-827-CES)

### SENIOR SCIENTIST Integrated Clinical and Public Health Practice and Outcomes

The primary responsibility of this position is to provide expertise on health services research, especially outcome measures for preventive medicine and public health.

This dedicated professional will also provide leadership and knowledge concerning the conduct of the AMA's programs in disease prevention/health promotions. The expert will collaborate with national efforts in clinical and community preventative services and evaluation of best practices. S/he will also conduct literature research to translate science into policy recommendations.

We're looking for an individual with 3+ yrs. of exp. in health services research, including epidemiology and preventive health program evaluation. Doctorate degree in a related health field, exp. with grant application writing and funding and strong methodology, writing, computer and interpersonal skills complete requirements. (*Dept. SEE-845-CES*)

### PROJECT MANAGER Managed Care Ethics Standards

This individual will initiate and manage projects in managed care and medical ethics for our Institute for Ethics. S/he will be a member of the core leadership for the Institute for Ethics, and responsible for researching and analyzing ethical issues and questions posed by managed care, designing and writing funding proposals, managing projects, and acting as a resource to other AMA groups.

Our selected candidate will have a minimum of a Master's degree, exp. in medical ethics and/or managed care and background with medical practice, grant writing and writing for publications in medical ethics. Polished analytical and criticalthinking skills essential, along with superior communication and management abilities. MD, JD, DPH, Ph.D. strongly preferred. (Dept. HAS-929-CES)

In return, you'll receive a competitive salary and benefits. Forward resume and salary history, to: AMA, 515 N. State St., (insert Dept. code), Chgo., IL 60610. Fax: (312) 464-5871. E-mail: placement@ama-assn.org See us on the Internet at http://www.ama-assn.org EOE.

### FACULTY POSITION INFECTIOUS DISEASE IMMUNOLOGY

The Department of Microbiology and Immunology at Tulane University School of Medicine invites applications for a tenure-track faculty position in immunology at the ASSISTANT or ASSOCIATE PROFESSOR level. Applicants must have a Ph.D. or M.D. degree, evidence of independent research experience, and competitive research support. We welcome applications from candidates with training in immunology, and whose research focus is the host response to viral, bacterial, or fungal pathogens. The successful candidate will be expected to develop an externally funded research program and to participate in medical and graduate student teaching. The Department and School of Medicine encompass a broad set of research interests, and excellent opportunities exist for collaboration. Applicants should submit a curriculum vitae, brief description of research program and career objectives, and the names of three qualified references to: Faculty Search Committee, Department of Microbiology and Immunology, 1430 Tulane Avenue SL-38, New Orleans, LA 70112. The search will remain open until a successful candidate is named. Tulane University is an Equal Opportunity/Affirmative Action Employer.

### ECOLOGIST FACULTY POSITION

The Department of Biological Sciences, Fordham University invites applicants with interests in population biology or evolutionary cology, for a tenure-track position at the ASSISTANT PROFESSOR level. Special consideration will be given to individuals studying insect-plant interactions, amphibians, birds, or fish. We seek individuals who will establish a vigorous, independently funded research program, and supervise Doctoral and Master's students at Fordham's biological field station, the Louis Calder Center, Armonk, New York (website: www.fordham.edu/ calder\_center), which has a diversity of terrestrial and aquatic habitats, laboratories, classrooms, and research library. Teaching at the undergraduate and graduate levels is expected. A Ph.D. is required and postdoctoral experience is preferred. Applicants should submit curriculum vitae, brief statement of research and teaching interests, and names and telephone numbers of three references to: Dr. Berish Y. Rubin. Ecologist Search Committee, c/o Louis Calder Center, Fordham University, Box K, Armonk, NY 10504. Closing date is September 30, 1999. Ford-ham University is an Equal Opportunity/Affirmative Action Employer.

### FACULTY POSITION IN VASCULAR WALL BIOLOGY Department of Medicine Washington University in St. Louis

ASSISTANT PROFESSOR of Medicine, M.D., M.D., Ph.D., or Ph.D. Applicant should be conducting fundamental research relevant to atherosclerotic vascular disease. A generous start-up package is available. Please send a curriculum vitae and a list of three potential references with addresses to: Jay Heinecke, M.D., Vascular Wall Biology Search Committee, Washington University School of Medicine, Box 8046, 660 South Euclid Avenue, St. Louis, MO 63110. Washington University is an Equal Opportunity/ Affirmative Action Employer.

### FOREST WILDLIFE CONSERVATIONIST ASSISTANT/ASSOCIATE PROFESSOR to

develop externally funded research program dealing with forest wildlife in the south. Ph.D. in wildlife biology, ecology, conservation biology, or related field with a strong commitment to undergraduate and graduate teaching. Apply by 25 August 1999 with a letter of interest, curriculum vitae, selected reprints, and three letters of reference to: Robert H. Chabreck, Chair, Wildlife Faculty Search Committee, School of Forestry, Wildlife, and Fisheries, Louisiana State University, Baton Rouge, LA 70803-6200. Telephone: 225-388-4131; e-mail: rchab@lsu.edu. Equal Opportunity Employer.

### POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR CLINICAL LABORATORY SCIENCE

The University at Buffalo seeks a full-time tenuretrack Assistant or Associate Professor for the Department of Clinical Laboratory Science, a broadly based department with graduate and undergraduate teaching responsibilities in medical technology, biotechnology, and nuclear medicine technology (website: http://wings.buffalo.edu/hrp/cls/). A Doctoral degree required; postdoctoral training is desired. Applicants must establish a funded independent research program and teach in an area related to molecular mechanisms of disease, bacteriology, virology, genomics, or molecular toxicology. Salary level is based on qualifications.

Applicants should submit a letter of application, a statement outlining career research goals, a complete curriculum vitae, and the names, addresses, telephone numbers, and e-mail addresses of three references to: Paul J. Kostyniak, Chairman, Department of Clinical Laboratory Science, University at Buffalo, 26 Cary Hall, Buffalo, NY 14214. Application deadline September 15, 1999. Equal Opportunity/Affirmative Action Employer. No person shall be subject to discrimination on the basis of age, color, disability, national origin, race, religion, sex, sexual orientation, or marital status.

### FACULTY POSITION IN GENETICS

Virginia Mason Research Center, a private nonprof-it research center located in Seattle, Washington, invites applications at the ASSISTANT/ASSOCI-ATE PROFESSOR level for a new program in molecular genetics. Applicants should have demonstrated research excellence in eukaryotic genetics. Areas of program interest include, but are not limited to, human genetics, model systems with relevance to human disease or development, and functional or computational genomics. Molecular genetics faculty will be housed in state-of-the-art laboratory space in the newly constructed Benaroya Research Institute (website: http://www.vmresearch.org/benaroya.htm). Applicants should send a curriculum vitae, a brief description of research accomplishments and future di-rections, and the names of three references by September 15, 1999. Please address applications to: Genetics Search, Virginia Mason Research Center, 1201 Ninth Avenue, Seattle, WA 98101-2795. Equal Opportunity Employer/Affirmative Action.

MICROBIOLOGIST. ASSISTANT PROFES-SOR. Tenure-track position in biological sciences, January 2000 or August 2000. Ph.D. required. Strong commitment to teaching. Teaching assignments include pathogenic microbiology, immunology, and courses in area of interest. Typical course loads per semester consist of two courses with laboratory. Other expectations include advising, service, and development of a research program, which includes supervision of undergraduate and Master's-level students. Send curriculum vitae, unofficial transcripts, a letter describing teaching and research interests applicable to an undergraduate and Master's-level institution, and names, addresses, e-mail addresses, and telphone numbers of four references to: Chair, Screening Committee, Division of Biological Sciences, Box 4050, Emporia State University, Emporia, KS 66801. Review of applications begins September 1, 1999, and continues until the position is filled. Website: http://biology.emporia.edu. Affimative Action/Equal Opportunity Employer.

Princeton University. The Department of Chemistry invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level from individuals whose research interests are in organic chemistry, broadly defined. Applications should include a description of research interests, a curriculum vitae, and three letters of recommendation. Send by November 1, 1999, to: Organic Search Committee, Department of Chemistry, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.

### POSITIONS OPEN

Roswell Park Cancer Institute is seeking a **CHAIR** for the Department of Pharmacology and Therapeutics and **DIRECTOR** of the Grace Cancer Drug Center. The candidate must hold a Ph.D. and/or M.D. degree with an established track record of peer-reviewed funding; have administrative experience in leading a large research group with a commitment to inter- and intradepartmental programmatic coordination. The major responsibility of the position is to promote the discovery and development of novel therapies for the treatment of cancer. The ideal candidate will have the exceptional vision necessary to continue development of a first-rate Department of Pharmacology and Therapeutics.

Roswell Park Cancer Institute is a free-standing, NCI Comprehensive Cancer Center that completed a \$250 million major modernization construction project in June of 1998. The Institute has six basic research departments, 11 clinical departments, and a vibrant Graduate Studies Division within the State University of New York at Buffalo providing a highly interactive environment for collaborative research.

Interested individuals should submit their curriculum vitae, on disk if possible, names of three references, and a one- or two-page summary of current research interest to:

Soldano Ferrone, M.D., Ph.D. Chair, Search Committee for the Chair of Pharmacology and Therapeutics Department of Immunology Roswell Park Cancer Institute Elm and Carlton Street Buffalo, NY 14263

RPCI is an Equal Opportunity Employer.

### TWO FACULTY POSITIONS DEPARTMENT OF BIOLOGICAL SCIENCES HUMBOLDT STATE UNIVERSITY

TENURE-TRACK faculty positions starting Auust 2000. Animal/human physiology: Requires Ph.D. in biological sciences with an emphasis in animal physiology. Primary responsibilities will be to teach courses in animal and human physiology. Life science education: Requires Ph.D. in biological sciences, teaching credential, and teaching experience at elementary or middle school level. Primary responsibilities will be to teach introductory biology and science education courses. Both: Duties will include advising undergraduate and Master's students and assisting as necessary in functioning of the department. Teaching promise must be demonstrated by evidence of prior teaching experience, at least at the Graduate Assistant level. Research is expected. Send résumé, three recent letters of recommendation, and complete academic transcripts (as well as requests for detailed position descriptions) to: Physiology Search Committee or Science Education Search Committee, Department of Biological Sciences, Humboldt State University, Arcata, CA 95521-8299. Tele-phone: 707-826-3245; FAX: 707-826-3201; email: turner@laurel.humboldt.edu. Completed application materials must be postmarked by 15 September 1999 (life science education position) or 15 October 1999 (physiology position). Equal Opportunity/Affirmative Action Employer. Women, persons with disability, and minorities are encouraged to apply

The Gene Therapy and Therapeutics Branch of the NIDCR, NIH is recruiting a STAFF SCIENTIST to work in its ongoing salivary gland gene transfer program. The successful individual should have Doctorallevel training in eukaryotic molecular biology, an M.D. or D.D.S., postdoctoral training, and broad experience with recombinant viral vectors, including chimeric vectors, as well as familiarity with salivary gland biology. Experience with in vivo animal models of gene transfer desired. Salary and benefits are equivalent to a GS-13/1 level. Send curriculum vitae, bibliography, and three letters of reference to: Ms. Judith Dulovich, NIH/NIDCR, 31 Center Drive MSC 2290, Building 31, Room 2C39, Bethesda, MD 20892-2290 by August 2, 1999. The National Institutes of Health is an Equal Opportunity Employer.

### National Cancer Institute Division of Clinical Sciences Radiation Oncology Sciences Program Radiation Oncology Branch

The Radiation Oncology Branch (ROB) of the Radiation Oncology Sciences Program (ROSP) at the National Cancer Institute is conducting a search for a tenure-level or tenure track investigator to initiate independent research in the molecular and cellular biology of ionizing radiation. The Branch is dedicated to the multi-disciplinary care of the cancer patient, allied to an active clinical and laboratory research effort. We are seeking an imaginative and ambitious individual committed to advancing the research and clinical programs of the field of radiation oncology. This is an unique position allowing the individual to conduct independent research in a team environment of clinicians and scientists dedicated to translating novel and pertinent laboratory findings into clinical trials. The successful candidate will be senior member of the ROSP, which also includes the Radiation Biology Branch and Radiation Research Program.

This position has an annual salary between \$60,000-\$120,000 depending upon the applicant's qualifications. All applications should include the following: a letter expressing interest in the position; a statement of research and clinical interests; a career synopsis and brief bibliography; a current curriculum vitae and complete bibliography; and the names and addresses of five references. A list of the requirements or additional information about the position may be obtained by contacting Nancy Kesteven at the address listed below. To ensure full consideration, applications must be completed by **September 30, 1999.** 

Applications should be sent to :

Ms. Nancy Kesteven Building 10, Rm B3-B69 Radiation Oncology Branch National Cancer Institute, National Institutes of Health 9000 Rockville Pike, Bethesda, MD 20892-1002 Telephone: (301) 496-5457, Fax: (301) 480-5439

Selection for the position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, gender, national origin, age, religion, sexual orientation, or physical or mental disability.

### NIH IS AN EQUAL OPPORTUNITY EMPLOYER

### National Cancer Institute Division of Clinical Sciences Radiation Oncology Sciences Program Radiation Oncology Branch

The Radiation Oncology Branch (ROB) of the Radiation Oncology Sciences Program (ROSP) of the National Cancer Institute, National Institutes of Health is accepting applications from senior candidates for a tenure track investigator clinician. This is a unique opportunity in assisting the ROB develop new areas of clinical and translational research in radiation therapy, radiation physics, radiation biology, radioimmunology and molecular and cell biology. This position involves clinical care, clinical and laboratory studies, supervising junior investigators, training residents/fellows and working effectively in a team environment. We are seeking an individual committed to advancing the research and clinical programs of the field of radiation oncology. The successful candidate will be a senior member of ROSP, which also includes the Radiation Biology Branch, Radiation Research Program and other collaborators.

This position has an annual salary between \$125,000 to \$175,000 depending upon the applicant's qualifications. All applications should include the following: a letter expressing interest in the position; a statement of research and clinical interests; a career synopsis and brief bibliography; a current curriculum vitae including complete bibliography; and the names and addresses of five references. A list of the requirements or additional information about the position may be obtained by contacting Nancy Kesteven at the address listed below. To ensure full consideration, applications must be completed by **September 30, 1999**.

Applications should be sent to :

Ms. Nancy Kesteven Building 10, Rm B3B69 National Cancer Institute, National Institutes of Health 9000 Rockville Pike, Bethesda, MD 20892-1002 Telephone: (301) 496-5457 FAX (301) 480-5439

Selection for the position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, gender, national origin, age, religion, sexual orientation, or physical or mental disability.

### NIH IS AN EQUAL OPPORTUNITY EMPLOYER

### VICE PRESIDENT FOR SCIENCE AND LIBRARY SERVICES

The Brooklyn Botanic Garden, with a history of 89 years of botanical research, is seeking a Senior Administrator to lead its Department of Science and Library Services. The Garden's research focus on floristics and horticultural taxonomy includes an active education program at the high school and graduate level. Library services include a 57,000-volume research library and a public Gardeners Resource Center. Responsibilities include administration of 15 staff and an annual operating budget \$1 million, conducting own research, expanding the funding base for research programs, participation in the organizational senior management team and working effectively with the public, staff, board, volunteers, and colleagues. Ph.D. in the plant sciences with demonstrated research record. strong administrative and leadership skills with 10 years of professional experience, and a broad view of science and education in a living museum setting. Send curriculum vitae and a list of references to

Vice President Science Search Committee Brooklyn Botanic Garden 1000 Washington Avenue Brooklyn, NY 11225 FAX: 718-622-7826

Equal Opportunity Employer/Minorities/Females/Disabled/Veterans.

### RESEARCH ASSOCIATE

Our ideal candidate will be a highly motivated individual with Master's-level molecular biology experience (including plasmid DNA subcloning and PCR) to conduct research in human cellular immunology and virology.

Requires five-plus years as a Senior Research Associate, preferably with academic and industrial experience, and expertise in each of the following: cloning of CD8 cytotoxic lymphocytes (CTL) from humans specific for viral antigens; CTL epitope analysis with synthetic peptides using chromium release assays; derivation, growth; and expansion of recombinant vaccinia viruses; growth of CMV strains; and knowledge of cytokine assays.

Will use fluorescence microscope and flow cytometer, including FACSCAN® or FACSCalibur®, interface with vendors, and maintain tissue culture incubators. Requires experience working with cells infected with HIV, CMV, EBV, or vaccinia viruses, and be willing to work with herpes, pox, lentiviruses, and radioactivity (including 51 Cr, 3H, 35S, and 32P). Must be willing to conduct experiments after hours and on weekends. Send curriculum vitae and names of three references to: Scott Sparks, City of Hope, RAII/ S7-2, 1500 East Duarte Road, Duarte, CA 91010-3000. FAX: 626-301-8182; e-mail: ssparks@coh. org. Visit us at website: www.cityofhope.org. Equal Opportunity Employer.

ASSOCIATE RESEARCH/POSTDOCTOR-AL POSITION to investigate structure-function relationships in membrane proteins. Current approaches include structure prediction methods and modeling. Desirable background includes knowledge of protein chemistry and biochemistry, molecular modeling packages, structure analysis, molecular dynamics, and energy minimization procedures. Please send curriculum vitae to: Dr. Jorge Fischbarg, The Edward S. Harkness Eye Institute, Columbia University Department of Ophthalmology, 630 West 168th Street, New York, NY 10032. We take Affirmative Action toward Equal Employment Opportunity.

RESEARCH ASSOCIATE or POSTDOC-TORAL FELLOW POSITION available immediately to study mechanisms of growth factor gene transcription in cancer. Experience in molecular biology techniques and eukaryotic promoter analysis is essential. Applicants should submit curriculum vitae and names of three referees to: Dr. David Kaetzel, Department of Pharmacology, MS-305, University of Kentucky College of Medicine, Lexington, KY 40536-0084. FAX: 606-323-1981; e-mail: dkaetz@pop.uky.edu.

### POSITIONS OPEN

### MANAGER, PHARMACEUTICAL ADVISORY SERVICES/MARKET ANALYST

Substantial career development potential for the right person in a growing multiclient advisory services business. Functioning as a Product Manager, you will maintain the competitive position of our project reports through program planning, writing, and marketing support activities. Conduct primary market research, synthesize secondary research, and manage a team of internal and external project contributors to produce analytical research on the pharmaceutical market for immune and anti-inflammatory therapies. Requirements: undergraduate science degree. Graduate degree in business and/or medical science field a plus. Medical writing and three to five years of work experience in the health care/pharmaceutical industry preferred. Personal strengths include advanced communication skills, task organization/project management proficiency, ability to digest and analyze technical information and determine its impact on drug development.

### MARKET ANALYST/ONCOLOGY

Functioning as an Analyst in a growing multiclient advisory services business, you will conduct primary and secondary research on current and emerging therapies and technologies in oncology and play a key role in producing reports analyzing and forecasting the pharmaceutical market for new therapies. Requirements: undergraduate science degree. Graduate degree in business and/or medical science relevant to oncology field a plus. Medical writing and two or more years of work experience in the health care/ pharmaceutical industry preferred. Personal strengths include advanced communication skills, ability to digest, organize, and analyze technical information, and determine its impact on drug development. Career development potential for the right person.

Please send résumé to: Judi Barratt, Decision Resources, Inc., 1100 Winter Street, Waltham, MA 02451-1238. FAX: 781-487-5750; website: www. dresources.com.

### RESEARCH SCIENTISTS

New York State Museum, Albany, New York seeks applicants for three permanent research positions: (1) PALEOZOIC STRATIGRAPHER (starting at \$44,348) specializing in regional aspects of Middle Paleozoic dynamic stratigraphy, with emphases in some combination of cyclic and episodic, tectonic, or eustatic controls on sedimentation and biotas with a dedication to the New York part of the northern Appalachian Basin and collateral regions; will also have curatorial responsibility for sections of the Museum's invertebrate paleontology and stratigraphy collections. (2) GEOARCHAEOLOGIST (starting at \$44,348) specializing in applying sedimentological, pedological, and geomorphological methods and techniques to archaeological site formation problems to collaborate in ongoing in-house archaeological, cultural resource management, and geological research projects. (3) VERTEBRATE BIOLOGIST (ornithology or mammalogy) (starting at \$35,945) to develop a collections-based research program that will focus on the taxonomy, zoogeography, ecology, or similar discipline of organisms in New York State and to serve as Curator of the vertebrate collection. All positions require strong verbal and written communication skills that are effective in both the general public and professionals, and the ability to develop their primary research program in New York State. All positions require appropriate Ph.D. in field of specialty, and professional and fieldwork experience commensurate with the position. Demonstrated record of field and laboratory research and peer-reviewed publications, ability to obtain outside funding through grants and/or contracts. Positions require a Civil Service training and experience examination. Send résumé and names of three references by July 30, 1999, to: Mr. Charles J. Byrne, Director of Personnel, Room 528EB, Box SC-4A, 89 Washington Avenue, Albany, NY 12234. Electronic submissions may be made by e-mail: scalvin@mail.nysed.gov. Affirmative Action/Equal Opportunity Employer.

### POSITIONS OPEN

### DIRECTOR RESEARCH CORE SERVICES The Lerner Research Institute Cleveland Clinic Foundation

The Lerner Research Institute of the Cleveland Clinic Foundation maintains a network of laboratory services covering animal, cell, and molecular biology; a complete description of the current Core Services may be found at website: www.lerner.ccf.org/ core\_services. A search has been initiated for a Director of Research Core Services and the appointment will be made at the rank of Assistant Professor or higher. The successful applicant will have a Doctoral degree with a broad base of experience in cell and/or molecular biology and will be responsible for fiscal and scientific management of the Core Services. This will include overall direction of existing Core Laboratories to ensure that they meet the Institute's needs and the development of new Core Laboratories, which will provide research staff with access to emerging technologies. The Lerner Research Institute has a long-standing commitment to excellence in basic research and currently comprises over 100 independent research laboratories with more than 600 employees in eight Departments, which occupy a newly completed 420,000-square foot research and education building complex. A competitive salary and benefits package will be provided.

Send curriculum vitae and three letters of reference to: Dr. Thomas A. Hamilton, Chairman, Search Committee/Research Core Services Director, NB30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.

The Cleveland Clinic is an Equal Opportunity Employer.

### PRINCIPAL INVESTIGATOR POSITIONS

Southeast Poultry Research Laboratory, Agricultural Research Services, USDA has two permanent full-time positions available for Ph.D. or Ph.D.-D.V.M. scientists. The first position is for a MOLEC-ULAR BIOLOGIST/GENETICIST with experience in microbiology, molecular biology, biochemistry, or genetics. The incumbent will utilize modern molecular approaches to conduct basic and applied research examining Salmonella enteritidis ecology The second position is for an IMMUNOLOGIST/ VIROLOGIST with experience in immunology, virology, microbiology, or molecular biology. The incumbent will conduct basic and applied research on the immunologic aspects of avian influenza and Newcastle disease virus. The ideal candidates will have a Ph.D. or Ph.D.-D.V.M. and postdoctoral research experience with evidence of recent peer-reviewed publications. Southeast Poultry Research Laboratory is a rapidly growing, dynamic research laboratory with over 18 scientists forming a diverse interdisciplinary team working on established and emerging disease threats to the U.S. poultry industry. Salary commensurate with experience (\$47,891 to \$87,489). United States citizenship required. For further information on the research programs and/or positions contact by telephone or by mail: Dr. David Swayne, 934 College Station Road, Athens, GA 30605. Telephone: 706-546-3434. For further information of application procedures, contact: Ms. Genell Powers, Telephone: 706-546-3029. Applications must be postmarked by August 2, 1999. The USDA is an Equal Opportunity Employer and Provider.

POSTDOCTORAL POSITION available immediately within the Molecular Physiology and Genetics Section of the National Institute on Aging (NIH) to study the role of insulin signal transduction in aging and the possible role of this pathway in the lifespan extension and the retardation of aging by caloric restriction. Applicants with relevant molecular biology, nutrition, and animal model experience will be considered. Experience in aging or diabetes-related research is highly desired. Applicants must have less than five years of postdoctoral experience. Contact: Dr. Mark A. Lane, Intramural Research Program, GRC, National Institute on Aging, NIH, 5600 Nathan Shock Drive, Baltimore, MD 21224. Telephone: 301-594-1210; FAX: 301-480-0504; e-mail: mlane@vax.grc.nia.nih.gov.

### **Postdoctoral Position** Molecular Immunology

An Intramural Research Training Award (IRTA) is available immediately to investigate the molecular mechanisms that underlie the etiology and susceptibility to a number of intraocular inflammatory diseases of infectious or autoimmune origin. Emphasis will be on cytokine-inducible signaling pathways of ocular cells. Prior experience in immunological methods, cell culture, gene regulation, parasitology or virology is desirable. Candidates should have a Ph.D. or M.D. with less than 5 years of postdoctoral experience and must be U.S. citizens or permanent residents. The salary range is from \$27,500-\$38,000 depending on postdoctoral experience. Deadline date to receive applications is August 20, 1999. Send a curriculum vitae and names of three references to:

Charles E. Egwuagu, MPH, Ph.D., Laboratory of Immunology National Eye Institute National Institutes of Health Building 10, Room 10N116 10 Center Dr. MCS 1857 Bethesda, Maryland 20892-2730. Fax: (301) 480-3914; email: emeka@helix.nih.gov

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

### **TENURE TRACK POSITION Division of Intramural Research Programs** National Institutes of Mental Health

The National Institute of Mental Health invites applications for a tenure track investigator using neuroimaging techniques to study the pathophysiology of mental illness. Such techniques could include fMRI, PET, and/or MRS. The candidate is expected to develop an independent research program and will be provided the personnel and budget to conduct the research. The candidate should have an M.D. or a Ph.D in the area of cognitive neuroscience or a related discipline and postdoctoral experience.

Applicants should send a curriculum vitae, statement or research interests, and have three letters of recommendation sent by July 31, 1999 to:

Dr. Robert Desimone, Scientific Director National Institutes of Mental Health Building 10, Room 4N222 9000 Rockville Pike Bethesda, Maryland 20892-1381

NIH is an Equal Opportunity Employer

### Grants



**RESEARCH GRANTS** 

The American Health Assistance Foundation invites applications from researchers at nonprofit institutions for the following programs:

Alzheimer's Disease Research : grant awards of up to \$100,000 per year for up to two years for research into the causes and treatments of Alzheimer's Disease.

Deadline: October 15, 1999

National Glaucoma Research: grant awards of up to \$25,000 per year for up to two years for research into the causes and treatment of glaucoma.

Deadline: November 15, 1999.

National Heart Foundation: starter grants of up to \$25,000 for one year for research into the cause and treatment of stroke or cardiovascular disease. To qualify for a starter grant, the investigator must be an assistant professor (or equivalent) beginning independent research. Deadline:November 1, 1999.

For application forms please visit our website at http://www.ahaf.org or call 301-948-3244.

**GLOBAL OPPORTUNITIES** 

# **Chief Executive Officer**

### **Cooperative Research Centre** for

# **Coastal Zone Estuary and Waterway** Management

The CRC for Coastal Zone Estuary and Waterway Management is a newly funded CRC with funding expected for 7 years. The CRC will commence in early July 1999. The Board wishes to appoint a highly capable leader for the CRC with a proven track record in science management.

The key requirements of the position are;

- Demonstrated leadership ability
- · High level management and negotiation skills
- · Recognised expertise in natural resources research and development
- Ability to influence outcomes in planning, policy and decision making.

Details of the CRC and a copy of the position description are available on the website http://www.coastalcrc.org.au or from lynne.turner@dnr.gld.gov.au (phone 61 7 3896 9891)

Please forward applications to Dr Barry Jones, Chair of the Board, GPO Box 496H. Melbourne, Victoria 3001 Australia. The closing date for applications is 21 July 1999.

TMP K8682

### CALTECH POSTDOCTORAL SCHOLARS PROGRAM AT IET PROPULSION LABORATORY

The California Institute of Technology (Caltech) Postdoctoral Scholars Program at the Jet Propulsion Laboratory (JPL) is inviting applicants to apply for two **RESEARCH POSITIONS** in low-temperature physics. One position deals with helium and hydrogen gas stream contaminant removal and helium closed-cycle cryostats. This involves low-temperature research, materials characterization, and component technology development. The second position involves temperature control using gas-gap thermal switches, preparation and characterization of metal hydrides, vacuum and cryogenic handling. The successful candidates will have experience in liquid helium and/or hydrogen technology, vacuum technology, and cryocoolers.

Candidates should have a recent Ph.D. in some aspect of low-temperature physics. Appointment is contingent upon evidence of completion of the Ph.D. Annual starting salary for a recent Ph.D. is approximately \$42,000, and can vary somewhat according to the applicant's qualifications. Postdoctoral Scholar positions are awarded initially for a one-year period. Appointments may be renewed in one-year increments for a maximum of two additional years. Please send a curriculum vitae, brief statement of research interests, and a list of three references to: Dr. Donald Rapp, Jet Propulsion Laboratory, 4800 Oak Grove Drive, MS 157-205, Pasadena, CA 91109. FAX: 818-393-4868; e-mail: drapp@jpl.nasa.gov. Caltech and JPL are Equal Opportunity/Affirmative Action Employers. Women, minorities, veterans, and disabled persons are encouraged to apply.

SUPERVISORY RESEARCH ENTOMOLO-GIST/RESEARCH GENETICIST. GS-0414/ 0440-14/15. U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Kika de la Garza Subtropical Agricultural Research Center, Weslaco, Texas. Permanent, full-time, Research Leader vacancy responsible for planning, conducting, and reporting research on designing biologically rational technologies while reducing synthetic chemical pesticide usage and ensuring the availability of high-quality honey bees for pollination. Candidates must have specialized experience and/or education that provided knowledge of entomology, insect genetics, and biological control-based integrated pest management systems. Salary: GS-14: \$67,298 to \$87,489; GS-15: \$79,162 to \$102,907 per annum. For application information, Telephone: 956-565-2606; indicate announcement number ARS-X9S-9313. Incomplete applications will not receive consideration. Applications must be post-marked by August 27, 1999. Full text vacancy announcement may be obtained via Internet (website: www.ars.usda.gov). USDA is an Equal Opportunity Provider and Employer.

Several POSTDOCTORAL POSITIONS are available immediately to work in the Laboratory of Molecular and Developmental Biology in the National Eye Institute, National Institutes of Health. The research involves developmentally regulated, tissuespecific expression of multifunctional enzyme and crystallin genes in the lens and/or cornea as well as other tissues. This group is also investigating the multiple functions and disease associations of these enzyme-crystallins. Mice, zebrafish, and several invertebrates are presently being used. Methodologies include cloning, expression, and molecular analyses of cDNAs and genes, and production and utilization of transgenic mice, gene knockout mice, and transfected cells. Candidates must be U.S. citizens or permanent residents and have a Ph.D. or M.D. degree. Salary begins at \$30,000 and increases depending on experience. Please send curriculum vitae and the names of three references to: Dr. Joram Piatigorsky, Laboratory of Molecular and Developmental Biology, Build-ing 6, Room 201, Bethesda, MD 20892-2730. FAX: 301-402-0781; e-mail: joramp@intra.nei. nih.gov. NIH is an Equal Opportunity Employer.

### POSITIONS OPEN



POSTDOCTORAL/RESEARCH ASSOCIATE POSITION IN MOLECULAR BIOLOGY

Available immediately to investigate hypertension in pregnancy. Primary focus is on cellular and molecular aspects of reproductive renin-angiotensin system supported by NIH. Ph.D. is required. Training/experience in cellular and molecular biology techniques is essential. Background in eukaryotic fusion protein expression is desired. Send curriculum vitae and three letters of reference to: Dinesh M. Shah, M.D., Director, Maternal-Fetal Medicine, University Mac-Donald Womens Hospital, Department of Reproductive Biology, 11100 Euclid Avenue, Cleveland, OH 44106. FAX: 216-844-7590.

CWRU is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT EDITOR NATURE NEUROSCIENCE

Nature Neuroscience, a monthly journal from the publishers of Nature, was launched in May 1998 and has already established itself as a leading journal in its field. Nature Neuroscience publishes papers of the highest quality in all areas of neuroscience, including molecular, cellular, systems, cognitive, and computational studies. Its aim is to reflect the multidisciplinary nature of this field and to provide a highly visible forum for communicating important advances to a broad readership.

In view of the strong response from both contributors and subscribers, *Nature Neuroscience* now wishes to hire another Assistant Editor. This is a full-time position based in the *Nature America* editorial office in Manhattan. Applicants should have a strong research background in neuroscience, a broad interest in the subject, excellent literary skills, and a commitment to the communication of scientific ideas.

This is an exciting opportunity to participate in running a major scientific journal and to play a key role in its future development. The successful candidate will participate in all aspects of the editorial process, including manuscript selection, commissioning and editing of News and Views and Reviews, and writing for the journal. The job also involves attending meetings in the United States and abroad, and maintaining contact with the international scientific community. The successful candidate will join the existing team of three Editors, and will become part of the larger editorial and publishing group who also produce Nature Genetics, Nature Structural Biology, Nature Medicine, and Nature Biotechnology.

Please submit a curriculum vitae, a short (500 to 1,000 words) News and Views-style article on an exciting and newsworthy recent development in any area of neuroscience, and a cover letter explaining your interest in the post to: The Editor, Nature Neuroscience, 345 Park Avenue South, New York, NY 10010. FAX: 212-696-0978; e-mail: neurosci@natureny.com to arrive as soon as possible and no later than 25 July 1999.

Further information about the journal may be found on our website: http://neurosci.nature.com.

### POSTDOCTORAL SCIENTIST UNIVERSITY OF PENNSYLVANIA

NIH-funded position available for scientist to work on mechanisms of action of anesthetic agents. Candidates must have a Ph.D. and be U.S. citizens or permanent residents. Experience with vascular biology and fluores cence techniques an advantage. Send cover letter, curriculum vitae, and names of three referees to: Bryan E. Marshall, M.D., FRCP, Horatio C. Wood Professor, Center for Anesthesia Research, 781 Dulles, University of Pennsylvania Health System, 3400 Spruce Street, Philadelphia, PA 19104. E-mail: ryanerene@mail.med.upenn.edu.

### POSITIONS OPEN

### POSTDOCTORAL RESEARCH POSITION

The Department of Surgery, Division of Cardiothoracic Surgery, at the University of Wisconsin invites applications for a two-year Postdoctoral Research Fellowship, available immediately. The research is directed at the development of new and innovative methods and materials to repair or replace cardiovascular structures. The Fellow will participate in identifying the role of integrin receptors and signal transduction in promoting endothelial cell proliferation and survival versus apoptosis, while in contact with novel biomaterials under flow conditions.

Creative and motivated individuals with a Ph.D. in cellular biology, molecular biology, or a related field are encouraged to apply. The ideal applicant will have experience in analysis of signal transduction and gene expression. Desirable candidates will also have experience in cell and tissue culture. The candidate will interact with a multidisciplinary team of Physicians, Engineers, Biologists, and Material Scientists, and will participate in the supervision of graduate students involved in the project. Preference will be given to candidates whose career goals include the intention to seek a tenure-track position at an academic institution after completing the Fellowship.

Interested individuals should submit a detailed curriculum vitae and the names of three references by e-mail or post. Contact:

Karyn S. Kunzelman, Ph.D. Associate Professor and Academic Program Director University of Wisconsin Division of Cardiothoracic Surgery, H4/368 600 Highland Avenue Madison, WI 53792-3236 Telephone: 608-262-3858 FAX: 608-263-0454 E-mail: karynk@surgery.wisc.edu

### POSTDOCTORAL POSITION UNIVERSITY OF MICHIGAN

Postdoctoral position available to study oral tissue engineering using viral vectors encoding growth factors. Background in molecular biology is required. Send curriculum vitae, statement of research experience and names and e-mail addresses of three references to: William V. Giannobile, D.D.S., D.M.Sc., University of Michigan Dental School, 1011 North University Avenue, Ann Arbor, MI48109-1078. E-mail: wgiannob@umich.edu. University of Michigan is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE

Position available for studies on eicosanoid biosynthetic enzymes. Biochemistry and/or molecular biology training required; experience with recombinant protein expression and characterization helpful. Applicants should send curriculum vitae and names of three references to: Dr. Richard Kulmacz, Hematology Division, Internal Medicine, University of Texas Health Science Center at Houston, 6431 Fannin Street, Houston, TX 77030. Equal Opportunity Employer.

**POSTDOCTORAL POSITION**. Molecular biology. Ph.D. in biochemistry, pharmacology, cell biology, or related field required. Hands-on experience ern molecular biology, including PCR. Fluency in written and spoken English imperative. Send résumé to: Professor R. J. Bergeron, Department of Medicinal Chemistry, P.O. Box 100485, Gainesville, FL 32610-0485. FAX: 352-392-8406. No telephone calls please.

Two POSTDOCTORAL POSITIONS available immediately to study developmental carcinogenesis. Strong experience in molecular and developmental biology required. Good command of scientific English, and scientific paper writing abilities a must. Contact: Dr. Ana Soto, M.D., Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111. E-mail: asoto@infonet.tufts.edu; FAX: 617-636-6536.



# Manager

### Preclinical Pharmacology

A vacancy as manager for the Department of Preclinical Pharmacology is open for employment as soon as possible. Preclinical Pharmacology is part of Preclinical Development and located in Novo Nordisk's laboratory facilities in Måløv, 20 km west of Copenhagen.

Preclinical Development employs 110 persons within Pharmacology, Toxicology, Pathology, Drug Metabolism, Pharmacokinetics and Immunochemistry. Preclinical Pharmacology participates in the safety assessment of potential new drugs and is responsible for part of the preclinical safety documentation. Furthermore, Preclinical Pharmacology is responsible for the initial safety pharmacology testing in late Discovery and Development projects employing state of the art methods like telemetry in various species.

### Tasks:

- Manager of Preclinical Pharmacology.
- · Member of Preclinical Development Management Team.
- Study Director for in house safety pharmacology studies.
- Study Monitor for safety pharmacology studies at CROs.
- Responsible for implementing of safety pharmacology testing strategies in Drug Discovery projects.
- · Developing and implementing new techniques used in the department.
- · Participate in safety assessments for New Drug Applications world-wide.

### **Qualifications:**

- You have a background as an MD, DVM or another biological background and have specialised in pharmacology and preclinical testing.
- · You are experienced as a pharmacologist.
- · You speak and write English fluently.
- · You are familiar with GLP.
- · Your are energetic, innovative, systematic and result oriented.
- · You are extrovert and flexible and with good co-operative ability.

If you recognise yourself in the above profile and ready for new challenges, please call Nils Dragsted (phone +45 44 43 46 44) or Karsten Skydsgaard (phone +45 44 43 46 30).

Written applications should be marked "Manager.7053" and sent to Novo Nordisk A/S, Human Resources, Building 9P1.13, Krogshoejvej 41, DK-2880 Bagsvaerd, Denmark, no later than 13 August, 1999.

Novo Nordisk A/S is the world leader in insulin and diabetes care and also the world's largest producer of industrial enzymes. The company also manufactures and markets a variety of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 14,000 people in 61 countries and markets its products in 130 countries. More information can be obtained from our home-page: http://www.novo.dk

Novo Nordisk A/S Novo Allé DK-2880 Bagsværd

**Novo Nordisk** 

### POSTDOCTORAL RESEARCH POSITION NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

The Laboratory of Immunogenetics, Human Immunogenetics Research Section seeks a Postdoctoral Fellow (Ph.D. and/or M.D.) with a background in immunology, virology, or cell biology. The section utilizes molecular genetic and cell culture techniques to analyze the T cell receptor repertoire utilized in response to infectious agents. The position is available immediately for a duration of two to five years. Starting salary is dependent on qualifications.

Applicants are requested to submit curriculum vitae and three letters of reference to:

> Dr. Mary Ann Robinson Laboratory of Immunogenetics NIAID Twinbrook II Facility 12441 Parklawn Drive Rockville, MD 20852 Telephone: 301-496-9888 FAX: 301-402-0259 E-mail: mr23k@nih.gov

NIH is an Equal Opportunity Employer. U.S. citizenship not required.

### POSTDOCTORAL POSITION STRUCTURAL BIOLOGY

Postdoctoral position available immediately to initiate development of new protein scaffolds to understand and manipulate protein functions involved in signal transduction cascades. Work involves combinatorial chemistry, high-throughput screens of expressed proteins, and biophysical characterization of protein scaffolds with designed functions. Energetic candidates with a strong background in signal transduction, biochemistry, or structural biology are encouraged to apply. Please send curriculum vitae and names of three references to: Dr. John Sondek, CB#7365, Department of Pharmacology, School of Medicine, University of North Carolina–Chapel Hill, Chapel Hill, NC 27599-7365. E-mail: sondek@med.unc.edu.

### POSTDOCTORAL POSITION WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

Available immediately to study the molecular and cellular biology of copper and iron metabolism. Current work focuses on the perturbations of metal metabolism in human disease (see: J. Biol. Chem. 273: 23625, 1998; Proc. Natl. Acad. Sci. 95:10854, 1998). Experience in molecular biology and transgenics required. Send curriculum vitae and names of references to: Dr. Jonathan D. Gitlin, Washington University School of Medicine, 660 South Euclid, Box 8116, St. Louis, MO 63110. E-mail: gitlin@kids. wustl.edu. Washington University is an Equal Opportunity/Affirmative Action Employer/Minorities/Females/Disabled/Veterans.

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

**POSTDOCTORAL RESEARCH ASSOCI-ATE**. Fixed-term, research in RNA molecular virology, studying tRNA mimicry in the replication of TYMV. Applicants must have a Ph.D. and at least three years of experience in RNA molecular biology/ biochemistry. Send curriculum vitae and names of three references to: Dr. Theo Dreher, Department of Microbiology, Oregon State University, Corvallis, OR 97331-3804. E-mail: drehert@bcc. orst.edu. OSU is an Affirmative Action/Equal Employment Opponutity and has a policy of being responsive to the needs of dual-career couples.

### **POSITIONS OPEN**

### POSTDOCTORAL POSITIONS

The Novartis Institute for Functional Genomics (NIFG), located in La Jolla, is developing and applying novel technologies for biomedical research. Several Postdoctoral positions are currently available in the following areas: (1) using gene expression profiling to create a database for correlating changes in behavior in the mouse (mutants, developmental/agerelated, stimulus-dependent, etc.) with gene expression using high-throughput DNA chip technology; (2) screening for new mouse behavioral mutants in a large-scale ENU mutagenesis; (3) positional cloning of mutant alleles; and (4) screening for candidate genes involved in neuropsychiatric disease using DNA chip technology. Candidates will use a variety of techniques including molecular biology, genetics, mouse behavior, database production, application of clustering and computation tools to identify trends and coregulated genes. Candidates should have a Ph.D. in molecular biology, cell biology, or neurobiology. For some positions, an understanding of programming methods (C, Java, Perl, and SQL) is highly desirable. Please send curriculum vitae to: Dr. Allen Fienberg, Novartis Institute for Functional Genomics, 3115 Merryfield Row, Suite 200, San Diego, CA 92121. Equal Opportunity Employer.

### POSTDOCTORAL POSITION

A NIH-funded Postdoctoral position is currently available in my laboratory to study the synaptic circuitry of the basal ganglia in monkeys. This project seeks to elucidate the synaptic localization of neurotransmitters and receptors in basal ganglia neurons at the electron microscope level. Applicants should have gained an M.D. or Ph.D. in neuroscience. Please send curriculum vitae, description of past research, as well as names, addresses, e-mail, and telephone numbers of at least two references to: Dr. Yoland Smith, Yerkes Primate Center, 954 Gatewood Road N.E., Emory University, Atlanta, GA 30329. Email: yolands@rmy.emory.edu; Telephone: 400-727-7519; FAX: 404-727-3278. Emory University is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL RESEARCH ASSOCIATE MULTIELECTRODE RECORDING/ NEURAL POPULATION CODING

Postdoctoral position available immediately to join interdisciplinary group investigating neuronal population codes related to cognition and action using multielectrode recordings in cerebral cortex. Experience in electrophysiology is required. Send curriculum vitae, statement of research interest, and names of three references to: John Donoghue, Ph.D., Department of Neuroscience, Brown University, Providence, RI 02912. E-mail: john\_donoghue@ brown.edu. The deadline for receipt of applications is August 15, 1999. Brown University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### POSTDOCTORAL FELLOW MOLECULAR GENETICS OF BIPOLAR DISORDER

Immediate opening at the University of Chicago to join a growing laboratory studying the genetic basis of manic depressive disorder. Candidates must have a Ph.D. and experience in molecular genetic laboratory methods. Send curriculum vitae to: Dr. Francis J. McMahon, 924 East 57th Street, R012, Chicago, IL 60637. FAX: 773-834-2970. Affirmative Action/ Equal Opportunity Employer.

**RESEARCH ASSISTANT** position to study cytokine signaling in a rat cardiac ischemia model. Experience with transfection, gel retardation, RNA analysis required. Must be able to work independently. Send or FAX curriculum vitae, experience, and names of three references to: Olcay Batuman, M.D., SUNY Health Science Center at Brooklyn, Box 20, 450 Clarkson Avenue, Brooklyn, NY 11203. FAX: 718-270-1578.

### POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP POSITION MOLECULAR NEUROSCIENCE

Two NIH Postdoctoral Fellowship positions are available to study (1) mechanisms of neurodegenerative disease and (2) regulation of neurotransmitter transporters. The first project involves studies of aberrant RNA metabolism in the biology of glutamate transporters as they relate to neurodegeneration in diseases such as amyotrophic lateral sclerosis. The second project involves identification of novel interacting/regulatory proteins for glutamate transporter subtypes. The ideal candidate will have a strong background in molecular biology, neurology or neuroscience, and transgenic animals. Interested individuals should send a curriculum vitae and references to:

Jeffrey D. Rothstein, M.D., Ph.D. Department of Neurology Johns Hopkins University 600 North Wolfe Street Meyer 6-109 Baltimore, MD 21287-5953 FAX: 410-955-0672 E-mail: jrothste@welchlink.welch.jhu.edu

Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. NIH Fellowships are available to U.S. citizens and individuals with green cards only.

### POSTDOCTORAL RESEARCH POSITIONS UNIVERSITY OF WASHINGTON

Two Postdoctoral positions are available for NIHsupported research in the genetics and molecular biology of neurodegenerative diseases including Alzheimer's disease, frontotemporal dementia, and related disorders. Projects include identification of new disease genes by linkage analysis and positional cloning, functional analysis of gene products involved in human diseases, and generation of animal models. Experience in molecular biology methods including cloning, manipulation of large-insert clones, and cell culture methods (e.g., transfection, generating primary cultures) is desirable. Candidates must have a Ph.D. Send curriculum vitae and three references to: Gerard D. Schellenberg, Associate Professor for Research, GRECC (182b), Veterans Affairs Puget Sound Health Care System, 1660 South Columbian Way, Seattle, WA 98108-1597. The University of Washington is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION** to study Src class tyrosine kinases in muscle development and synaptic function at the neuromuscular junction using molecular and cellular approaches. Projects include investigating the (i) regulation of Src kinases by innervation and extracellular factors, (ii) signal transduction cascades involving Src kinases in muscle, and (iii) role of Src kinases in muscle differentiation as well as synaptogenesis and synaptic transmission at the neuromuscular junction. See: *JBC* 274:20529. Dr. Sheridan L. Swope, EPO8 Research Building, Georgetown University Medical Center, 3970 Reservoir Road, Washington, DC 20007. E-mail: swopes@giccs.georgetown.edu.

**POSTDOCTORAL POSITION** in viral neuroimmunology is available to study the immunopathogenic mechanisms involved in a virally induced demyelinating disease as an infectious model for human multiple sclerosis. Candidates with a Ph.D. and a strong molecular biology background is preferred. Send curriculum vitae and names of three references to: Byung S. Kim, Ph.D., Professor of Microbiology-Immunology, Northwestern University Medical School, 320 East Superior Avenue, Chicago, IL 60611.

**POSTDOCTORAL POSITION**. Study signal transduction of G protein-coupled receptors (muscarinic, opioid), receptor-activated Ca<sup>++</sup> channels, membrane protein-protein interactions, two-hybrid analysis, and human polymorphisms. Available immediately. Apply with names of three references to: Dr. W. Sadée, Department of Biopharmaceutical Sciences, University of California, San Francisco, San Francisco, CA 94143-0446.

### POSTDOCTORAL FELLOW POSITION

A Postdoctoral position is available immediately in the Regulation of Gene Expression Section, Laboratory of Molecular and Developmental Biology in the National Eye Institute, National Institutes of Health, Bethesda, Maryland. Research projects focus on study of signal transduction and protein-protein interaction of transcription factors involved in the regulation of gene expression in the ocular lens. The applicant must be a U.S. citizen or permanent resident, have a Ph.D. degree, and less than five years of postdoctoral experience. Experience in molecular biology required. Salary ranges from \$27,500 to \$38,000 depending upon previous experience. Please send curriculum vitae, bibliography, and names of three references to: Dr. Ana B. Chepelinsky, Laboratory of Molecular and Developmental Biology, NEI, NIH, 6 Center Drive—MSC 2730, Building 6, Room 211, Be-thesda, MD 20892-2730. FAX: 301-480-7933; e-mail: abc@helix.nih.gov.

NIH-NEI is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCI-ATE/INSTRUCTOR available immediately to delineate novel inhibitory neural pathways regulating bronchial mucosal function. The person will conduct studies in animals to measure bronchial mucociliary clearance, trachael mucus velocity, airway secretory output, ciliary beat frequency, and mucus rheology during localized administration of various specific excitatory and inhibitory agonists and antagonists in combination with and without vagal blockade. SO2 will be used as a test irritant. This work is being funded by a five-year NIH grant that runs until December 31, 2003. Send curriculum vitae and the contact information to: Donovan Yeates, Ph.D., Pulmonary Biophysics and Bioengineering Laboratory, Department of Medicine, University of Illinois at Chicago, M/C 788, 1940 West Taylor Street, Room 212 BGRC, Chicago, IL 60612. E-mail: yeates-d@uic.edu.

### POSTDOCTORAL POSITION

An NSF-sponsored position is available immediately to develop computational methods in macromolecular crystal structure determination. A research description is available at website: http://www.sb.fsu. edu/~chapman. Applicants should have strong backgrounds in computer programming and methods development in either small or large molecule X-ray crystallography. Applications, including three references, should be sent to: Michael S. Chapman, Institute of Molecular Biophysics, Florida State University, FL 32306-4380. E-mail: chapman@ sb.fsu.edu. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITIONS** to study the regulation of herpes virus gene expression *in vitro*, and *in vivo*. The studies may include structure/function analysis of the viral regulatory proteins, the biochemistry of virus/host interactions, or the development of viral vectors. Applicants should possess a Doctoral degree in molecular genetics, biochemistry, or virology. Applicants should send a current curriculum vitae, and list of references to: Neal DeLuca, Ph.D., Professor, Department of Molecular Genetics and Biochemistry, F1257 Biomedical Science Tower, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261.

Brigham and Women's Hospital. **POSTDOC-TORAL POSITION** is available to study molecular mechanisms of arteriosclerosis and vascular tone regulation. Special emphasis on molecular cloning, transcriptional regulation, and biological function of genes regulated by oxidative stress in vascular smooth muscle cells and macrophages. Experience with molecular biology, cell biology, or protein chemistry is required. Please send curriculum vitae and names of three references to: M. A. Perrella, M.D. and M. E. Lee, M.D., Ph.D., Program of Developmental Cardiovascular Biology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.

### POSITIONS OPEN

## POSTDOCTORAL RESEARCH ASSOCIATES AND GRADUATE RESEARCH ASSISTANTS

Positions are available immediately in kinase signaling in prostate, liver, and cardiovascular models to study mechanisms of regulation of cell and tissue phenotype by primarily the FGF and TGF $\beta$  signaling complexes. Research spans detailed structurefunction relationships of isolated molecules to mouse models of human disease. Send curriculum vitae, statement of research interests, names, addresses, and contact information of at least three referees to: Dr. Wallace L. McKeehan, c/o Human Resources Office, Albert B. Alkek Institute of Biosciences and Technology, Texas A&M University System Health Science Center, 2121 West Holcomb Boulevard, Houston, TX 77030. E-mail: wmckeeha@ibt.tamu.edu; website: http:// www-ibt.tamu.edu.

An Equal Employment Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION YALE UNIVERSITY

A Postdoctoral or Research Associate/Assistant position is available immediately in the Boyer Center for Molecular Medicine, to study the effects of steroid hormones on endothelial activation and function. Candidates with a strong background in molecular and cell biology, preferably with vascular biology experience, are encouraged to apply. Applicants must be U.S. residents (permanent) or citizens. Interested candidates should send curriculum vitae and direct inquiries to: Jeffrey R. Bender, M.D., Boyer Center for Molecular Medicine, 454C, Yale University School of Medicine, P.O. Box 9812, 295 Congress Avenue, New Haven, CT 06536-0812. Email: jeffrey.bender@yale.edu.

### POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral Research Associate position available immediately in the Department of Pathology and Laboratory Medicine to study signal transduction pathways associated with mechanisms of anticancer action. Candidate should have a Ph.D. or M.D. and have experience in *in situ* hybridization, immunohistochemistry, and purification of nucleic acids from tissue sections. Send curriculum vitae and three references to: H. Simpkins, M.D., Ph.D., Professor and Chairperson, Department of Pathology and Laboratory Medicine, Temple University School of Medicine, 3401 North Broad Street, Philadelphia, PA 19140. Temple University is an Affirmative Action/Equal Opportunity Employer and strongly encourages applications from women and minorities.

**POSTDOCTORAL POSITION**. Available immediately to investigate a novel strategy for construction of aphicidal genes. Research will include baculovirus expression, protein purification, and insect bioassays. Experience in molecular biology and biochemistry is required. Entomological experience advantageous. Send résumé and names, e-mail addresses, and telephone numbers for three references to: Dr. B. C. Bonning, Department of Entomology and Program in Genetics, Iowa State University, 411 Science II, Ames, IA 50111 USA. FAX: 515-294-5957. E-mail: bbonning@iastate.edu. Iowa State University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study human chromosomal fragile sites in oncogenesis. Experience in molecular biology and protein biochemistry is required. Send curriculum vitae and three letters of recommendation to: Dr. Yuh-Hwa Wang, Department of Biochemistry, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854. FAX: 732-235-3232; e-mail: wangyu@umdnj.edu. UMDNJ is an Affirmative Action/Equal Opportunity Employer/Minorities/ Females/Disabled/Veterans, and a member of the University Health System of New Jersey.



<b>Custom Recombinant Proteins</b>		
We Make The	• for Basic Research	
Scientific Proteins:	<ul> <li>Crystallization,</li> </ul>	
You Make The	<ul> <li>Drug Screening,</li> </ul>	
Breakthrough Research!	· Genomics,	
ProteinGenesys Ltd.	<ul> <li>Immunochemistry</li> </ul>	
www.proteingenesys.com Intl	+41 61/811 3357, 2803 fax	

Circle No. 33 on Readers' Service Card



Circle No. 45 on Readers' Service Card





Circle No. 18 on Readers' Service Card



Circle No. 11 on Readers' Service Card



Circle No. 1 on Readers' Service Card

MARKETPLACE
DNA Primers from \$0.85/base Ready to Use No Stup Charge No Hidden Casts The Great American Gene Company http://www.geneco.com email: geneco@ix.netcom.com fax: (800) 816-5517 Circle No. 8 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. 6 on Readers' Service Card
CUSTOM DNA SYNTHESIS PURE & SIMPLE • Superb Technical Support • Impeccable Quality • World's Fastest Service • Cap Gel & TOF Mass Spec • Some restrictions apply. Please call for details.
DILL THE UNDREPUTED #1 CUBTOM DNA SYNTHEBIB SERVICE THE MIDLAND CERTIFIED REAGENT COMPANY Phone 1-800-247-8766 FAX 915-694-2387 email mcrc@oligos.com Circle No. 3 on Readers' Service Card
Quality Peptides and Antisera Friendly, Personal Service www.genosys.com
Custom Peptide Synthesis • sequence analysis • lg, >70%, >80%, >95% purity • scales from 2 mg-lg • 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 GENOSYS North America 1-877-710-1502 email: info@genosys.com (+44) (0) 1223 839000 email: genosys@genosys.co.uk
Circle No. 31 on Readers' Service Card
DNA SEQUENCING



Circle No. 15 on Readers' Service Card



Research Genetics, Inc. 1-800-533-4363 Circle No. 4 on Readers' Service Card

http://www.resgen.com



**MIDLAND** is a leader in the synthesis, purification and quality verification of MODIFIED OLIGONUCLEOTIDES. All custom oligonucleotide synthesis include MALDI-TOF mass spectral analysis at no additional charge. This analysis verifies that the observed mass of your oligonucleotide is within 0.2% of the theoretical mass—the presence of the desired modification is easily verified.

MIDLAND offers FLUORESCENT DYES such as fluorescein, 6-FAM, HEX, TET, TAMRA, ROX, cyanine dyes, DABCYL, coumarin and carboxyrhodamine in either single-label or dual-label formats. We can also prepare oligos with HAPTEN modifications with biotin and other modifications with biotin and other modifiers. We routinely manufacture ANTISENSE oligonucleotides with phosphorothioate backbones, mixed backbones and 2-O-methyl RNA, as well as FUNCTIONALIZED oligonucleotides with 5' or 3' amino or thiol groups. Hundreds of modifications are available.

MIDLAND has years of experience in the synthesis and purification of modified oligonucleotides. Mass spectrometry analysis during the purification process has enabled them to refine techniques and thus ensure the highest quality.

Let **MIDLAND** be a part of your next project. Call **800/247-8766** today.



MIDLAND The Midland Certified Reagent Co.

20 Years of Quality

Phone: 800/247-8766 Fax: 800/359-5789 E-mail: mcrc@oligos.com www.mcrc.com Circle No. 36 on Readers' Service Card

The Molecular Beacon probe is sold under license to the Midland Certified Reagent Company granted by the P.H.R.I. of New York, Inc. Molecular Beacons are distinct from the Beacon<sup>®</sup> technology—a registered trademark of Pan Vera Corporation, Madison, WI.



# Chemokines & Receptors

### R&D Systems Expanding Line of Chemokine Reagents Include:

- Recombinant Proteins
- Flow Cytometry Reagents
- Antibodies
   Probe Cocktails
- ELISA KitsPrimer Pairs

### **CC** Chemokines

 $\begin{array}{l} 6\mathsf{CKine} \bullet \mathsf{C10} \bullet \mathsf{Eotaxin} \bullet \mathsf{Eotaxin-2} \ (\mathsf{MPIF-2}) \bullet \mathsf{HCC-1} \bullet \mathsf{HCC-4} \bullet \mathsf{I-309} \bullet \mathsf{JE} \bullet \mathsf{Lkn-1} \\ \mathsf{MARC} \bullet \mathsf{MCP-1} \ (\mathsf{MCAF}) \bullet \mathsf{MCP-2} \bullet \mathsf{MCP-3} \bullet \mathsf{MCP-4} \bullet \mathsf{MCP-5} \bullet \mathsf{MDC} \bullet \mathsf{MIP-1}\alpha \bullet \mathsf{MIP-1}\beta \\ \mathsf{MIP-1}\gamma \bullet \mathsf{MIP-1}\delta \bullet \mathsf{MIP-3}\alpha \bullet \mathsf{MIP-3}\beta \bullet \mathsf{MPIF-1} \bullet \mathsf{PARC} \bullet \mathsf{RANTES} \bullet \mathsf{TARC} \bullet \mathsf{TECK} \\ \end{array}$ 

### **CXC Chemokines**

 $\label{eq:BLC/BCA-1} \bullet CINC-1 \bullet CINC-2\alpha \bullet CINC-2\beta \bullet CRG-2 \bullet ENA-78 \bullet GCP-2 \bullet GRO\alpha \bullet GRO\beta \\ GRO\gamma \bullet I-TAC \bullet IL-8 \bullet IP-10 \bullet KC \bullet MIG \bullet MIP-2 \bullet NAP-2 \bullet SDF-1\alpha/PBSF \bullet SDF-1\beta/PBSF \\ \end{array}$ 

C Chemokines Lymphotactin CX<sub>3</sub>C Chemokines Fractalkine Viral Chemokines MIP-I • MIP-II • MIP-III CCI • CMV UL146

**Chemokine Receptors** 

CCR-1 • CCR-2 • CCR-3 • CCR-5 • CCR-6 • CXCR-1 (IL-8RA) • CXCR-2 (IL-8RB) • CXCR-3 • CXCR-4 • CXCR-5

### 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@rndsystems.com Europe R&D Systems Europe Ltd. 4-10 The Quadrant, Barton Lane Abingdon, OX14 3YS, UK Tel: +44 (0)1235 529449 Fax: +44 (0)1235 533420 info@rndsystems.co.uk Germany R&D Systems GmbH Borsigstrasse 7 65205 Wiesbaden, Germany Tel: +49 (0)6122 90980 Fax: +49 (0)6122 909819 infogmbh@rndsystems.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 Circle No. 37 on Readers' Service Card



