

NEW PRODUCTS

ANTIBODIES

A monoclonal antibody (mAb) is available to human B cell linker protein, which is believed to play a central role in B cell antigen receptor signaling by promoting the association of the receptor-associated kinase Syk with the signaling molecules phospholipase C, Grb2, Vav, and Nck. This mAb is available as ascites fluid and has been used for protein immunoblot and immunoprecipitation.

Berkeley Antibody

For more information call 800-92-BABCO or **circle 142** on the Reader Service Card

DAKO

For more information call 800-235-5763 or **circle 143** on the Reader Service Card

Mouse Anti-Human Progesterone Receptor (PgR 636) is available for use on formalin-fixed, paraffin-embedded tissue sections, frozen sections, and cell preparations.

Chemicon International

For more information call 800-437-7500 or **circle 144** on the Reader Service Card

MICROFUGE DESIGN IMPROVES CONTAINMENT

The Clear-Spin Microcentrifuge is designed to allow easier and safer manipulation of hazardous samples during centrifugation. The improved safety stems from an innovative rotor disc that can double as a storage rack. This enables sample preparation and manipulation to be performed with the tubes held in the rotor disc, prior to and after transfer to the rotor case. The rotor case is hermetically sealed for the containment of hazardous material. It is constructed of transparent polysulphone, which enables easy detection of spillage or tube failure to avoid exposing laboratory personnel to any risk. Clear-Spin can be used for preparatory and analytical applications, and the incorporation of a strobe allows direct observation of separat-

Seward

For more information call +44 (0) 181 365 4105 or **circle 145** on the Reader Service Card

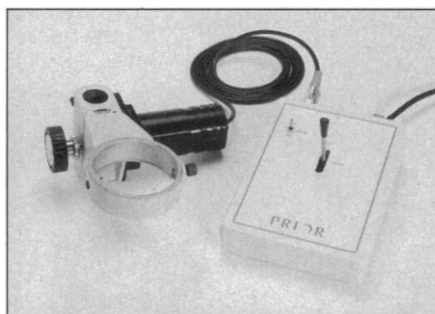
ing components. The rotor case is autoclavable and resistant to solvents and cleaning solutions.

REMOTE CONTROL FOCUS FOR STEREO MICROSCOPES

The H160-Z Remote Focus Control Unit is an easy-to-operate system that provides quick and precise focus at variable speeds. The freestanding unit can be fitted on any stereozoom microscope with a coarse only focus block. The units include a control box with joystick, high/low speed option, three-foot cord with drive motor, focus mount, and focus sleeve. Optional foot pedal controls are available.

Prior Scientific

For more information call 781-878-8442 or **circle 146** on the Reader Service Card



NYLON TRANSFER MEMBRANES

A complete line of nylon hybridization membranes for nucleic acid and protein transfers is available. Neutral GeneScreen and positively charged GeneScreen Plus membranes are available in sheets, rolls, disks, and custom sizes and shapes. GeneScreen Plus membranes offer high sensitivity for radiometric applications. They demonstrate high affinity for RNA and bind DNA of all sizes, from oligonucleotides to fragments >23 kb. The positive charge generates high strength bonds, which increase the number of reprobes possible, improve resolution, and eliminate the need to fix nucleic acids to the membrane. GeneScreen neutral nylon membranes offer reduced background for best results in chemiluminescent and chromogenic systems. Crosslinking occurs quickly, so only 2 min of ultraviolet radiation are required.

NEN Life Science Products

For more information call 800-446-0035 or **circle 147** on the Reader Service Card

NON-ANIMAL PROTEIN BLOCKER FOR IMMUNOASSAYS

NAP-SureBLOCKER is a blocking agent containing non-animal proteins that is designed for improved immunoassay sensitivity, clean background, and high signal-to-background ratio. The solution is free of biotin and other cross-reacting agents present in blocking agents made from animal sources. It ensures uniform blocking without non-specific binding and no cross reaction with animal source antigens, primary antibodies, or secondary antibodies. It provides better results than milk powder preparations.

Geno Technology

For more information call 314-645-2050 or **circle 148** on the Reader Service Card

LITERATURE

Sigma Automated Sequencing Products contains products designed to increase throughput and decrease costs. It features special high-throughput acrylamide solutions (AutoPAGE 4.25% and AutoPAGE Plus 4.5%) that provide more data in less time than standard gel runs. The guide also includes information on halfTERM and halfBD solutions to reduce terminator premix costs by 50%; competitively priced plates, combs, and spacers; sequencing accessories; and textbooks on genome analysis.

Sigma

For more information call 800-282-1298 or **circle 149** on the Reader Service Card

WaterPro Water Purification Systems is a 24-page catalog on compact point-of-use water purification systems. It begins with an introduction to water purification, followed by a guide designed to assist in selecting the most suitable water system for an application. It includes each water system's features, benefits, specifications, and dimensions; accessories; and a glossary.

Labconco

For more information call 800-821-5525 or **circle 150** on the Reader Service Card

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

MATHEMATICA[®] 4

RELEASE DATE: JUNE 1, 1999

The Innovation Continues...

New features in Mathematica 4 include:

- Over 100 new and enhanced basic Mathematica functions
- Dramatic speed and memory enhancements for numerical computation
- Support for assumptions and algebraic domains
- Extended HTML and TeX output capabilities; MathML output
- Spell checking and hyphenation in notebooks
- Direct import and export for over 20 standard data and graphics formats
- Additional support for special functions and integral transforms
- Optimized algorithms for computations of a million digits or more
- Further international character support (Chinese, Korean, etc. added)
- Network license management availability on all platforms
- New edition of Stephen Wolfram's *The Mathematica Book*



WOLFRAM
RESEARCH

Supporting mathematics research and education since 1988
www.wolfram.com/mathematica4/sci or 1-800-WOLFRAM

Wolfram Research, Inc.: www.wolfram.com; info@wolfram.com; +1-217-398-0700
Wolfram Research Europe Ltd.: www.wolfram.co.uk; info@wolfram.co.uk; +44-(0)1993-883400
Wolfram Research Asia Ltd.: www.wolfram.co.jp; info@wolfram.co.jp; +81-(0)3-5276-0506

© 1999 Wolfram Research, Inc. Mathematica is a registered trademark of Wolfram Research, Inc. Mathematica is not associated with Mathematica Policy Research, Inc. or MathTech, Inc.

Sales inquiries outside the U.S. and Canada:
www.wolfram.com/intdealers

All Mathematica products are available for Microsoft Windows, Macintosh, and most Unix platforms.

Circle No. 49 on Readers' Service Card

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
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 POSITION IN MOLECULAR PROFILING CANCER GENETICS PROGRAM University of California, San Francisco

The Cancer Genetics Program in the University of California, San Francisco (UCSF) Cancer Center invites applications for a faculty position at the **ASSISTANT to FULL PROFESSOR** level. The Program includes 29 UCSF faculty members engaged in elucidation of genetic and genomic changes that contribute to cancer development, progression, and response to therapy and use of the information to improve cancer prevention, diagnosis, prognostication, and treatment. Use of information from the Human Genome Project and application of powerful new technologies for large-scale genome analysis for analysis of human and murine tumors are key aspects of the Program. The successful candidate will be expected to develop a program in large-scale gene expression profiling of human cancers and provide intellectual guidance in the development of the Cancer Center Expression Array Core.

Send curriculum vitae, a description of the proposed research program and the names and addresses of three references to: Joe W. Gray, Ph.D., Cancer Genetics Program Leader, University of California, San Francisco Cancer Center, S331, 2340 Sutter Street, University of California, San Francisco, San Francisco, CA 94143-0808. Website: http://cc.ucsf.edu/program/pgm_genetics.html.

EUKARYOTIC MOLECULAR GENETICIST UNIVERSITY OF NEBRASKA-LINCOLN DEPARTMENT OF BIOCHEMISTRY

Applications are invited for a tenure-track **ASSISTANT PROFESSOR** position from candidates conducting research with model, non-plant genetic systems (including cell culture) aimed at understanding basic biochemical processes (such as genome structure, gene regulation, or signal transduction). The successful applicant is expected to develop a strong, extramurally funded research program and teach one course per year at the undergraduate or graduate level. Housed in the new state-of-the-art George W. Beadle Center for Genetics and Biomaterials Research and part of the Institute of Agriculture and Natural Resources, this is a 12-month, state-funded appointment with a generous start-up package. Ph.D. degree and postdoctoral experience are required. Send curriculum vitae, a succinct statement of research interests, representative reprints, and three letters of references by August 1, 1999 (or until a suitable candidate is found thereafter), to: Dr. Robert J. Spreitzer, Department of Biochemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0664. FAX: 402-472-7842. UNL is committed to a pluralistic campus community through Affirmative Action/Equal Employment Opportunity, is responsive to the needs of dual-career couples, and assures reasonable accommodation under the ADA.

JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE Department of Otolaryngology- Head and Neck Surgery

The Department of Otolaryngology-Head and Neck Surgery is recruiting a full-time basic scientist to be located in the Center for Hearing Sciences. The focus of this **TENURE-TRACK FACULTY POSITION** is cellular, genetic, and/or molecular mechanisms of hearing. Candidates should have a Ph.D. and/or M.D. degree with postdoctoral experience. The successful application will be expected to interact with other members of the Center, to acquire extramural funding, and to participate in the teaching of graduate students, medical students, and Residents. Applicants are asked to submit by July 31, 1999, a curriculum vitae, a description of research interests, and three letters of reference to: Dr. David K. Ryugo, Center for Hearing Sciences, Johns Hopkins University School of Medicine, 720 Rutland Avenue, Baltimore, MD 21205. Johns Hopkins University is an Equal Opportunity Employer.

POSITIONS OPEN

FOUR NEUROSCIENCE FACULTY POSITIONS NEUROLOGICAL SCIENCES INSTITUTE Oregon Health Sciences University

The Neurological Sciences Institute (NSI) is recruiting additional faculty to staff its new, expanded research facility being built on Oregon Health Sciences University's west campus, at the western edge of Portland. We invite applications from Neuroscientists at the level of **ASSISTANT, ASSOCIATE, or SENIOR SCIENTIST** whose research complements that of the current faculty ([website: www.ohsu.edu/hsi/](http://www.ohsu.edu/hsi/)). Preference will be given to those with extramurally funded programs. All levels of investigation will be considered, including molecular, cellular, systems, and behavioral.

Our institute is a multidisciplinary center dedicated to advancement of our understanding of the brain and neurological disorders and to application of that understanding to address problems in human health. We are part of a rapidly growing university that is strong in basic and clinical neurosciences. Our new building will be located adjacent to the Oregon Regional Primate Research Center, which makes primate research possible.

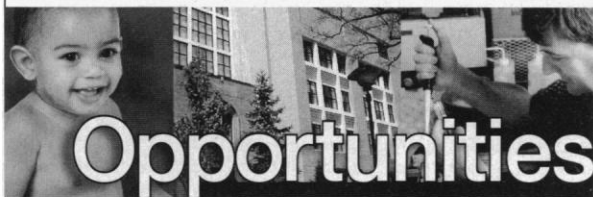
Applicants should submit a curriculum vitae, a statement of research interests, and three letters of recommendation to: Search Committee, Neurological Sciences Institute, Oregon Health Sciences University, 1120 N.W. 20th Avenue, Portland, OR 97209. Applications must be received before August 1, 1999; interviews will be conducted in the fall of 1999 for appointments to begin in the fall of 2000.

OHSU is an Equal Opportunity Employer.

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.

The Department of Neurosurgery at Baylor College of Medicine in Houston invites applicants for a tenure-track position at the level of **ASSISTANT PROFESSOR**. Candidates must have M.D. and Ph.D. and no less than four years of postdoctoral training in molecular biology or cell biology. Applicants will be expected to develop or have previously established a funded research program relative to the new approaches to apoptosis detection. The successful candidate will have demonstrated organizational skills and a strong record of personal research accomplishments supported by publications in leading peer-reviewed journals. Send letter of application, a curriculum vitae, brief statement of career goals and accomplishments together with other supporting documents and three letters of recommendation to: Robert G. Grossman, M.D., Professor and Chairman, Department of Neurosurgery, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.



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

Biochemist/Biologist

THERE'S A WORLD OF INNOVATION

BEHIND OUR GLOBAL SUCCESS

UNILEVER has the distinction of ranking with the top consumer products companies in the world in sales and innovation. Our success is built upon collaborative scientific research and product development efforts resulting in over 1000 nationally and internationally known brands including *Dove and Lever 2000, Vaseline Intensive Care, Suave, Pond's* and premium fragrance and skin care products including *Elizabeth Arden and Calvin Klein Cosmetics*. Other household names include *Lipton, Good Humor-Breyers Ice Cream, Snuggle and Wisk*. At our global research facility located in Edgewater, NJ, our commitment is to allow our people to broaden their perspective and think beyond conventional scientific boundaries.

To continue our success and growth we now seek a Biochemist/Biologist to join our team and bring ideas, knowledge and expertise to our research efforts. We will look to you to provide biological guidance and support to our personal wash and skin care groups, as well as adding insight into the ways in which skin cleansers and skin care products can improve skin condition. You will be responsible for advancing research efforts through effective design, analysis and interpretation of in vitro and in vivo skin experiments.



Unilever Research

To qualify, you must have a PhD in Biochemistry/Molecular Biology/Biological Sciences. The ideal candidate would have experience in applying this to skin and skin related problems, and would have experience in skin cell or organ culture techniques, and a good understanding of the skin biochemistry. The candidate should be able to design, carry out and critique their own experiments, as well as being able to review the relevant literature and critique the work of others. The ability to communicate with other scientists of varied disciplines, a potential for leadership and an ability to present their work is essential.

We offer a competitive salary, flexible benefits including tuition assistance, and a dynamic environment filled with learning and discovery. For consideration please forward your resume to: Human Resources Dept., BIO1, Unilever Research US, 45 River Road, Edgewater, NJ 07020 or E-Mail: job.mca@unilever.com providing BIO1 in the subject header. We appreciate your interest in our company and will contact applicants who most closely meet our immediate requirements. Applicants must be authorized to work in the USA. Unilever is an Equal Opportunity Employer m/f/d/v.

For more information about Unilever Research and Unilever visit our Internet Web Site at <http://www.unilever.com>

Science For The Real World



rowth, speed, innovation.

You'll find them at Roche.

Career Opportunities in R&D

Hoffmann-La Roche is a leading research-intensive pharmaceutical company that discovers, develops, manufactures and markets prescription drugs that improve, prolong and save lives. We are active in more than 100 countries, employ approximately 70,000 people and invest more than \$1.7 billion a year worldwide in pharmaceutical research and development.

If you are intent on contributing to the future of medicine in an open, supportive, leading-edge environment, consider one of these exceptional career opportunities at our **Nutley, NJ** Pharmaceutical Research Center.

Principal Scientist - Oncology

In this position, you will utilize bioinformatic approaches in the identification and validation of novel molecular targets. With access to proprietary databases and powerful analytical tools, this position offers creative individuals a unique opportunity to synergize with the Roche Bioinformatics community, applying state-of-the-art genomics technologies to target identification.

To succeed, you will need a Ph.D. in Genetics or Molecular Oncology; a minimum 2 years' postdoctoral experience in oncological aspects of cell cycle regulation, signal transduction or angiogenesis; and broad knowledge of cancer biology. Strong computer and communication skills and the ability to work in a multidisciplinary team environment are essential. Previous experience using bioinformatics resources and database mining are preferred. Aptitude in Website development and/or scripting languages (Perl, JavaScript, VB) is a major plus.

Job Code: 99-000-1260

Senior Scientist - Pre-clinical Oncology

You will perform experiments to evaluate the effects of modulating activities of molecular targets and drugs in cellular and cell-free assays. You will also analyze published data for the assessment of molecular targets as drug targets.

A BS or MS or equivalent, and experience in tissue culture methods and biochemistry with a specific background in transfection, ELISA enzyme assays, electrophoretic techniques and flow cytometry are essentials. Strong communication and computer skills are required.

Job Code: 99-000-1261

Scientist - Oncology

In this position, you will provide in vivo pharmacology support to various discovery projects in Oncology and for the assessment of licensing candidates. This will include evaluating potential drug candidates in xenograft and syngeneic tumor models; performing pharmacokinetic and MTD studies; generating and analyzing data; and participating in implementation, characterization and utilization of new animal models.

To qualify, you must have a BS in Biology or a related field; a minimum 1-3 years' experience with in vivo models of Oncology; high caliber analytical and technical skills and PC proficiency including MS Word and Excel. Familiarity with handling mice and rats, dosing animals by i.v., s.c., i.p. routes, and oral gavage is essential; surgical techniques in rodents desirable. **Job Code: 99-000-1295**

Principal Scientist - Discovery Pharmacology

The successful candidate will join the Discovery Drug Metabolism and Pharmacokinetics Group which is part of our newly formed Discovery Pharmacology Department. The candidate will be an integral part of multidisciplinary project teams and be accountable for conceiving, designing and implementing pharmacokinetic studies in animal models in support of small molecule lead optimization. Additional responsibilities may include the development of analytical methods using HPLC-MS and the establishment of in vitro models for metabolic and pharmacokinetic profiles.

Qualified candidates should have a Ph.D. in Pharmacokinetics, Biochemistry or Pharmacology with 2-5 years of experience within the pharmaceutical industry. Experience with animal models, PK/PD data analysis and in vitro and analytical methods are desired. Additional consideration will be given to candidates with experience in the development and use of high throughput assays or the automation of plasma sampling and a record of advancing molecules into the pipeline. The candidate also will have excellent oral and written communication skills, computer literacy with standard business and PK applications, and an ability to work independently yet function as a productive member of project teams. **Job Code: 99-000-1100**

Principal Scientist - Discovery Technologies

You will develop and optimize assays and analytical procedures for high throughput screening; perform high throughput assays and dose-response analysis using automated robotic systems; and analyze HTS data.

To succeed, you will need a Ph.D. in a biological science or a BS/MS degree with in vitro assay methods development experience; PC software knowledge; and excellent organization and communication skills. Familiarity with HTS robotics, automated workstations and associated instrumentation and HTS data analysis software packages, including ActivityBase, Isis and Excel are preferred. **Job Code: 99-000-1296**

Principal Scientist - Pharmaceutical & Analytical R&D

You will supervise a team responsible for analytical and pre-formulation activities that support early phase compound projects. This includes developing analytical methods for instrument analysis; preparing IND documentation; and serving on a variety of project teams.

A Ph.D. in Chemistry, Pharmaceutics or equivalent and 3-5 years' experience in analytical chemistry and pre-formulation of pharmaceuticals are required. You will also need strong analytical/conceptual skills, and the ability to work well on a team. Experience preparing IND, NDA and other regulatory submissions is a plus. **Job Code: 99-000-1168**

As one of *NJ Monthly's* "Best Companies to Work for in New Jersey," we offer our employees competitive salaries and a benefits package that includes on-site childcare and a state-of-the-art fitness center. To be considered for these positions, please forward your resume, indicating Job Code and salary requirements, to: **Hoffmann-La Roche, R&D Human Resources, Building 76/5th Floor, 340 Kingsland Street, Nutley, NJ 07110; FAX: 973-235-2767.** Hoffmann-La Roche is an equal opportunity employer fully committed to diversity in the workplace.

Visit our Web site at www.RocheUSA.com



Perform where the advancement of science, engineering and national policymaking issues converge.

Where does the nation turn for objective independent research...for definitive thinking and principled expertise that address the issues of the day, of the decade, of the future? The answer is simple. They rely on The National Academies (National Research Council, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine). We invite you to join our acclaimed team in downtown DC.

EXECUTIVE DIRECTOR Center for Science, Mathematics and Engineering Education

The National Research Council is seeking an Executive Director for the Center for Science, Mathematics and Engineering Education (CSMEE). CSMEE is a major source of expertise and analysis of issues, problems, and opportunities arising in education, especially science, mathematics, and engineering education. It convenes balanced groups of experts, serving pro bono, who consider policy issues in education and their applications with the goal of improving our nation's educational system from kindergarten through university.

The Executive Director is responsible for the overall planning and management of the NRC's science, mathematics, and engineering education activities throughout CSMEE and for providing advice to NRC management on policy issues and studies. Responsibilities include developing programmatic agendas and strategic priorities to achieve program objectives; identifying current and emerging science, mathematics, and engineering education issues; directing, reviewing, and contributing to the writing of final reports and publications; planning and presenting findings to sponsors and the broader professional/policy making community; overseeing CSMEE's staff and coordinating CSMEE's technical, financial, reporting, and administrative operations in compliance with institutional policy and contract/grant requirements; identifying sources of support for projects and active fundraising; and, collaborating with other units of the National Academies.

Requirements include a Ph.D. or equivalent in education, science, mathematics, engineering, or public policy related disciplines, and a minimum of 10 years of directly related experience showing leadership in science, mathematics, and engineering education and policy issues. Excellent interpersonal skills and communication skills, both written and oral, are also required. A demonstrated ability to interact effectively with potential sponsors and the professional community is essential.

We offer a generous salary and benefits package including paid relocation to the Washington, DC area. Please forward your resume, in confidence, to:

The National Research Council
Human Resources, Attn: SW/GR 146
2101 Constitution Ave., NW
Washington, DC 20418
Fax: (202) 334-1746
E-mail: ohrresum@nas.edu
EOE, M/F/D/V.

www.nas.edu

NATIONAL RESEARCH COUNCIL
NATIONAL ACADEMY OF SCIENCES
NATIONAL ACADEMY OF ENGINEERING
INSTITUTE OF MEDICINE



Experts Providing Answers™

At Monsanto, we share a common goal — to help people lead longer, healthier lives. We are pioneering the use of life-science technologies to understand how the connections between human health, nutrition and agriculture can be used to develop products to improve the quality of life for everyone, everywhere. Monsanto's Nutrition and Consumer sector offers opportunities to work with highly motivated people who are leaders in scientific discovery and development. For the following openings at our subsidiary Calgene, located in Davis, CA, we are seeking professionals with excellent communication skills and the ability to work effectively in a team environment.

Ph.D. Biochemist

We are looking for a Research Scientist to lead projects in the genetic engineering of major crop species for enhanced oilseed value. Specifically, the successful candidate will conduct research on lipid and carbohydrate metabolic pathways to identify and functionally test novel genetic engineering targets. Achieving this goal will encompass genetic engineering, enzymology, physiology and metabolic flux analysis. This is a challenging and very central position in a multidisciplinary team that integrates genomics, molecular biology, biochemistry and plant breeding. Candidates should hold a minimum of a Ph.D. in Plant Biochemistry or Plant Physiology and should have successfully concluded postdoctoral research projects. Ideal candidates will have previously applied transgenic technologies to manipulate or study biochemical pathways. **Ad code: BCPHD-NC**

Ph.D. Molecular Biologist

We are looking for a Plant Molecular Biologist with at least two years of postdoctoral experience in academic or industrial environments. The ideal candidates will have experience in heterologous gene expression, genomics, as well as an appreciation of biochemistry. Excellent communication and computer skills, and the ability to work in a team environment are essential. **Ad code: MBPHD-NC**

Ph.D. Analytical Biochemist

We are seeking a Doctorate-level Analytic Biochemist with at least two years postdoctoral experience in academic or industrial environments. The ideal candidate will have experience in metabolic pathways, analytical methodology and validation, mass spectrometry, spectroscopy, chromatography and a solid knowledge and applicable experience in metabolic intermediates. Excellent communication, leadership and computer skills, and the ability to work in a team environment are essential. High throughput and lab automation experience a plus. **Ad code: ABPHD-NC**

BS/MS Molecular Biologists / Biochemists

We are seeking Molecular Biologists and Biochemists who have at least two years of research experience in an academic or industrial laboratories. Knowledge in one or more of these areas is preferred: metabolic pathways, protein purification, development of enzyme assays, gene regulation, cloning, heterologous gene expression, RNA and DNA manipulations, and PCR. **Ad code: MBBS-NC**

BS/MS Analytical Chemists

For these positions, we seek Analytical Chemists with BS or MS degrees in Chemistry and experience in modern chromatography and mass spectrophotometric analyses of metabolites. Knowledge of metabolic pathways, biochemistry, or molecular biology is a plus. **Ad code: ACBS-NC**

BS/MS Plant Transformation Specialists

We are seeking Research Associates with BS or MS degrees in Plant Biology to join a core team in support of gene expression and genomics projects. Candidates should have experience in plant transformation, Agrobacterium, tissue analysis, PCR, and computer database skills. Arabidopsis, pollination, and plant growth experience desired for one position. Strong organizational, interpersonal, and communication skills preferred. **Ad code: TSBS-NC**

M.S./Ph.D. Biochemist

We are seeking a highly creative, skilled, and personable individual to lead the biochemistry effort for the Colored Cotton Fiber Group. The key area of research focus will be in plant secondary metabolism. Applicants with specialization in the phenylpropanoid / indole alkaloid pathways are preferred. Each candidate should have experience in purification of soluble and membrane bound enzymes, development of enzymatic assays (including synthesis of substrates as needed), and determination of metabolic pathway flux. Excellent communication skills will be essential for interaction with our molecular biology and genomics teams both here in Davis and in St. Louis to achieve our final goal. **Ad code: BCPHD-AG**

We offer a competitive salary and benefits package. For consideration, please indicate the appropriate position and send your resume to: **Calgene, L.L.C., 1920 Fifth Street, Davis, CA 95616; Fax: 530-792-2453. EEO/AA. M/F/D/V.** Please visit our website at: www.monsanto.com

MONSANTO

Food • Health • Hope™



Functional Genomics At Novartis

Dedicated to discovering the cause.

Novartis Pharmaceuticals Corporation has created a new Functional Genomics Department which is dedicated to the identification of novel human disease genes, and applying these discoveries for drug development and clinical utility. We are applying state-of-the-art techniques in an integrated approach, using high throughput gene expression analysis, novel antisense technologies, proteomics, transgenic mice and drosophila genetics, as well as more traditional molecular biology and biochemistry approaches.

We are seeking enthusiastic, creative individuals to join the Summit, New Jersey division of our Functional Genomics Department, with facilities in Basel, Switzerland as well.

The ultimate mission of our department is to work in concert with our therapeutic area drug discovery groups to identify new research opportunities, and to rapidly turn these gene based discoveries into clinical benefit.

Bioinformatics:

GROUP LEADER: We are currently seeking someone to lead our Bioinformatics Group. While based in Summit, NJ, this group has expert staff in both NJ and Switzerland, and is responsible for creating, implementing and using tools for large scale expression profiling and database mining utilizing large proprietary data sources. The successful candidate will have the opportunity to help determine the future direction, not only for the Bioinformatics Group, but also for the department on a global basis. Qualifications include a Ph.D. in either Computational Biology, Molecular Biology or a related science, along with a minimum of five years in Bioinformatics. *Please refer to Position HB-5832 on resume and envelope, or as the subject of your e-mail.*

SR. SCIENTISTS: We are also seeking Ph.D. level Scientists to be involved in the development and use of tools in large scale analysis of gene sequence and expression data. Requirements include a Ph.D. in Biology or Computational Science and at least two years of postdoctoral experience in bioinformatics. *Please refer to Position HB-6584 on resume and envelope, or as the subject of your e-mail.*

Research Scientists:

We are looking for Scientists with extensive experience in molecular and cell biology, protein biochemistry and purification. Qualifications include a BS/MS in Biological Sciences with a minimum of two years of relevant experience. *Please refer to Position HB-5786 on resume and envelope, or as the subject of your e-mail.*

We are also seeking a candidate with extensive experience in *in vivo* gene expression, histology, *in situ* hybridization and immunohistochemistry. Qualifications include a BS/MS in Biological Sciences with a minimum of two years of relevant experience. *Please refer to Position HB-5770 on resume and envelope, or as the subject of your e-mail.*

Additionally, we are seeking Research Scientists to join our Functional Genomics Team that uses *Drosophila melanogaster* to define pathways and networks related to human disease. Qualifications include a BS/MS in a relevant scientific discipline along with 2+ years of laboratory experience and a good working knowledge of molecular and/or genetic techniques. *Please refer to Position HB-5742 on resume and envelope, or as the subject of your e-mail.*

Strong communication skills and the ability to work as an effective team member are essential for each position.

Postdoctoral Research Fellow:

We are looking for innovative, dedicated individuals with a Ph.D. and expertise in molecular biology, biochemistry and mammalian expression systems. We would also be interested in those individuals with experience in high throughput molecular biology techniques. These individuals will be actively involved in the discovery of, and functional validation of, candidate disease genes in Oncology, Arthritis, Neuroscience and Cardiovascular diseases. Candidates may also develop technology for expression cloning, protein/protein interaction and high throughput expression analysis. Our postdoctoral assignments encourage creative thinking and offer ample opportunities for publication and research presentations. *Please refer to Position HB/PD-6577 on resume and envelope, or as the subject of your e-mail.*

We are dedicated to fostering a progressive environment that is open to new ideas. Our compensation package is designed to attract the industry's best. For confidential consideration, please send your resume and letter of interest to: **R&D Staffing, Novartis Pharmaceuticals Corporation, 556 Morris Avenue, Building 133-1029, Summit, New Jersey 07901; e-mail hrstaffrd.phuseh@pharma.novartis.com.** Please indicate Position code on resume AND envelope; or as the subject of your e-mail. We are an equal opportunity employer M/F/D/V. We appreciate your interest in our Company. Unfortunately, we will only be able to respond to those candidates chosen for interviews or additional follow-up.

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

University of California

Inquiries are invited from qualified applicants for faculty positions currently available:

Positions are nine-month tenure track appointments (unless otherwise indicated). Eleven month term employment will be offered and continued based upon academic personnel review.

Assistant Professor/Root Biologist. Teach and conduct research in the fundamental and applied aspects of grape root biology. Apply to: Andrew Walker, Search Committee Chair, Department of Viticulture and Enology, e-mail alwaterhouse@ucdavis.edu. Position open until filled. To ensure consideration, applications should be received by April 15, 1999.

Assistant Professor/Food Chemistry – Separation Science. Teach and conduct research in food chemistry with emphasis on analytical/separation methods for food component and/or toxicant analyses. Apply to Michael J. McCarthy, Department of Food Science and Technology, e-mail mimccarthy@ucdavis.edu. Position open until filled. To ensure consideration, applications should be received by August 31, 1999.

Assistant Professor/Landscape Planner – Environmental Scientist. Teach courses in landscape architecture, environmental planning/bioregional planning, site ecology, landscape ecology and/or site planning conservation and management, and conduct research emphasizing ecosystem management, watershed management, resource management, restoration ecology, agroecology, landscape ecology, and conservation biology. Apply to: Mark Francis, Search Committee Chair, Department of Environmental Design, e-mail mofrancis@ucdavis.edu. Position is open until filled. To ensure consideration, applications should be received by October 1, 1999.

Assistant Vegetable Specialist in Cooperative Extension. A career-track position that includes CE research, outreach, and education responsibility, with emphasis on cool-season vegetable production. Appointee will be located at the UCD/USDA Research Center in Salinas, and will be an integral part of the UC Department of Vegetable Crops. Apply to: Timothy Hartz, Search Committee Chair, Department of Vegetable Crops, e-mail hartz@vegmail.ucdavis.edu. Position open until filled. To ensure consideration, applications should be received by August 15, 1999.

Assistant Community Studies Specialist in Cooperative Extension (11 mos). Develop and extend an applied research and outreach program that focuses on California communities in the areas of community development and change, social policy and leadership. Apply to James Grieshop, Department of Human and Community Development, e-mail jgrieshop@ucdavis.edu. Position open until filled. To ensure consideration, applications should be received by June 1, 1999.

Assistant Anadromous and Inland Fisheries Specialist in Cooperative Extension (11 mos). Conduct applied research and outreach of relevance to California in the area of adaptive management and the design and/or evaluation of conservation and species/fisheries recovery projects. Apply to Chris Dewees, Department of Wildlife, Fish, and Conservation Biology, e-mail cmdewees@ucdavis.edu. Position open until filled.

Assistant/Associate Cotton Agronomist (11 mos). Develop a specialized research program that encompasses, but is not limited to, the establishment of a germplasm collection in support of experimental studies that focus on the development and release of improved germplasm. This position is housed at the UC Cotton Research Station in Shafter, CA. Apply to: Robert Travis, Search Committee Chair, Department of Agronomy and Range Science, e-mail rltravis@ucdavis.edu. Position is open until filled. To ensure consideration, applications should be received by August 30, 1999.

Statewide Program Coordinator for Expanded Food Nutrition Education Program (11 mos). Provide statewide program leadership and coordination/management of the EFNEP State Office, coordinate the program policy and administrative groups associated with EFNEP, and provide liaison within the University of California and with Federal/State program partners. Apply to Dr. Sheri Zidenberg-Cherr, Search Committee Chair, e-mail sazidenbergcherr@ucdavis.edu. For further details, visit the following website: <http://nutrition.ucdavis.edu/jobs.html>. Position open until filled. To ensure consideration, applications should be received by May 15, 1999.

Professorial positions have responsibilities for teaching, advising, and research (in the Agricultural Experiment Station). Candidates must have a Ph.D. in an appropriate field. Applicants should submit resume, transcripts (if within five years of graduation), statement of research and teaching experience, list and reprints of publications, and the names and addresses of at least three persons familiar with the applicant's qualifications, to individual and department as noted for position (department name), University of California, Davis, CA 95616. Please indicate the position(s) in which you are interested.

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

POSTDOCTORAL POSITIONS



PLANT BIOLOGY & PLANT-PATHOGEN INTERACTIONS

Oregon State University

Several postdoctoral positions are available at the Center for Gene Research and Biotechnology and Department of Botany and Plant Pathology, Oregon State University. Projects integrating cellular, genetic, and biochemical approaches provide excellent opportunities for highly motivated applicants interested in fundamental aspects of plant biology and pathology. Knowledge of molecular biology methods is required; experience in cell biology, fluorescent microscopy, and/or protein purification techniques would be of great advantage. Candidates may choose one of the following laboratories:

Dr. Lynda M. Ciuffetti - Fungal-Plant Interactions. Research focuses on the identification and characterization of factors involved in pathogenicity and host specificity, and mechanisms of susceptibility and resistance (receptor studies).

Dr. Valerian V. Dolja - Virus-Plant Interactions. Long-term, NIH-supported project addressing molecular and cellular aspects of viral infection and utilization of viruses in biotechnology and functional genomics. Important part of the project is focused on the function of HSP70 homolog in closteroviral cell-to-cell movement.

Dr. Terri L. Lomax - Hormonal Regulation of Plant Development and Environmental Responsiveness. Molecular genetic investigations of the mechanisms underlying auxin regulation of growth and differentiation as well as interactions with other plant hormones. Current research involves positional cloning of genes involved in the gravitational response mechanism

Send curriculum vitae, statement of research experience, and names of three references to Dr. Susan Jepson, Department of Botany and Plant Pathology, Cordley Hall 2082, Oregon State University, Corvallis, OR 97331.

OSU is an Affirmative Action/ Equal Opportunity Employer.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY POST-DOCTORAL PROGRAM National Health and Environmental Effects Research Laboratory

The National Health and Environmental Effects Research Laboratory (NHEERL) of the U.S. Environmental Protection Agency (EPA) is seeking candidates to fill **approximately 18 federal postdoctoral research positions** during the coming year. As one of the national laboratories within the Office of Research and Development (ORD), NHEERL is EPA's focal point for scientific research on the effects of contaminants and environmental stressors on human health and ecosystems. NHEERL utilizes a multi-disciplinary approach to solving research problems. Assimilation and integration of information across environmental disciplines and across multiple levels of biological organizations (from molecular to the whole organism, and from the organism to the ecosystem levels) strengthen analyses of environmental issues. Several of these positions will present developmental opportunities which may be cross-organizational or cross-disciplinary; i.e., within or across NHEERL ecology or health divisions; across lab and human or ecological field studies; and across other national laboratories/centers within ORD or regulatory program offices within EPA.

Because of NHEERL's broad research mission and multi-disciplinary approach, we are seeking candidates from a wide range of disciplinary backgrounds. The preferred candidate will have earned a Ph.D. in one of the following areas (or a closely related field): biology (e.g., cellular, molecular), physiology, biochemistry, toxicology, environmental sciences, biomedical or chemical engineering, ecology (e.g., aquatic, coastal systems, coral, ecosystem, estuarine, landscape, marine, microbial), ecotoxicology, endocrinology, epidemiology, biostatistics/modeling, geographic information science, geomorphology, geostatistics, genetics, development and reproduction, immunology, pulmonology, microbiology, neurosciences, pharmacology, pharmaceutical sciences, plant physiology, population/community modeling, physical chemistry, physiology, or toxicology.

NHEERL is organized into nine divisions which are located at various geographical locations and specialize in a different field of environmental health or ecology research. Post-doctoral positions to conduct research on environmental health are anticipated for divisions located in Research Triangle Park and Chapel Hill, NC. Post-doctoral positions to conduct ecology research are anticipated for divisions located in Duluth, MN; Gulf Breeze, FL; Corvallis and Newport, OR; and Narragansett, RI. To obtain specific information on the scientific research projects proposed for the NHEERL post-doctoral positions, please visit the NHEERL Internet site at <http://www.epa.gov/nheerl> beginning **May 14, 1999**.

These positions are excepted service appointments for two to three years, and offer a salary range of **\$33,026 – \$62,260**, commensurate with qualifications. Our goal is to have successful candidates on board before October 1, 1999. The selected candidates will be eligible for a full benefits package, including relocation expenses, health insurance, life insurance, retirement, and vacation and sick leave. **United States citizens are preferred and will be given first consideration for all positions.** In the absence of qualified U.S. citizens, applications from citizens of countries specified as exceptions to the appropriations act ban on paying non-U.S. citizens may be considered. Further information on Federal employment of non-citizens is available at <http://www.opm.gov/employ/html/citizen.htm>

The filing deadline for these post-doctoral positions is **July 9, 1999**. If you are interested, please send a curriculum vitae, a letter of recommendation from your senior research advisor, or other comparable official, and a letter indicating your research interests, preferred geographical location(s), and **country of citizenship** to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), Research Triangle, NC 27711, Attn: NHEERL Post-Doctoral Program. If you are claiming veterans' preference, please include your **DD-214** with your application package.

If you send your application via Federal Express, address it to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), 4201 Building, Suite 105, 79 Alexander Drive, Research Triangle Park, NC 27709, Attn: NHEERL Post-Doctoral Program. You may also submit your application via facsimile (fax) machine to (919) 541-2186; however, applications faxed from a U.S. government fax machine will not be accepted. Applications sent electronically via the Internet or mailed in U.S. government postage-paid envelopes will also **not** receive consideration. Your application materials must be received in the Human Resources Office by **July 9, 1999**.

Questions may be directed to Ms. Carr at (800) 433-9633. After all responses are reviewed, candidates will receive written notice of the status of their applications no later than **September 17, 1999**.

The U.S. EPA is an Equal Opportunity Employer.

Research Staff Positions

The Ludwig Institute for Cancer Research and Cornell University have formed a partnership to develop therapeutic agents for the treatment of cancer. The mission of the Ludwig Institute for Cancer Research is to originate and conduct research directed to the ultimate goal of eradicating cancer. Cornell University through its Biotechnology Institute has significant resources and core competencies in the area of gene expression and recombinant protein production. The partnership will explore prokaryotic and eukaryotic systems to produce tumor antigens and validate their utility as cancer therapeutics.

A laboratory and associated facilities are being established on the Cornell University-Ithaca campus dedicated to the development of recombinant DNA host systems for expressing tumor antigens and other potential cancer therapeutic agents. A team will be assembled to undertake this challenge and their efforts will range from vector construction, through scale up fermentation to downstream purification.

Appointments will be made either through the Ludwig Institute for Cancer Research (Research Associate) or Cornell University, Biotechnology Institute (Postdoctoral Associate, Research Technicians). Salary is commensurate with skills and experience. The Ludwig Institute for Cancer Research and Cornell University are committed to diversity and inclusivity in its staff hiring. All positions would be available as early as July 1, 1999. Evaluation of applicants will begin June 15, 1999.

Research Associate: The successful candidate will have a Ph.D. or equivalent degree in molecular biology, genetics, biochemistry or another appropriate field with at least 2-5 years of postdoctoral experience. Prior experience as a leader of a research group will be advantageous. Skills in the development of one or more recombinant DNA expression systems and/or fermentation and downstream fermentation are important. Experience in clinical product delivery would be an asset.

Postdoctoral Associate: The successful candidate will have a Ph.D. or equivalent in molecular biology, biochemistry, genetics or another appropriate field. The applicant will have skills in molecular biology and the development of expression systems in either bacterial, yeast or eukaryotic systems.

Research Technician: Two research technicians are sought to support the molecular biology and fermentation efforts. The successful candidates will have a B.S. or M.S. degree in molecular biology, genetics or another appropriate field. Experience in small scale fermentation or protein purification would be an asset.

To Apply: Please submit a current curriculum vitae and the names of at least three references to: Professor Carl A. Batt 312 Stocking Hall
Cornell University, Ithaca, NY 14853
FAX (607) 255-8741 / cab10@cornell.edu

CORNELL
UNIVERSITY

Cornell University is an equal opportunity, affirmative action employer.

 **NOVARTIS**

Novartis Agricultural Discovery Institute

Novartis Agricultural Discovery Institute Inc. (NADI) is one of the largest single fully funded research endeavors dedicated to agricultural genomics. We apply cutting-edge biotechnology to match genes with traits and provide advanced technologies that can be used widely in agribusiness research for the development of gene-based products. We are currently seeking qualified candidates for the following career opportunities:

Enabling Discovery. Accelerating Growth.

Protein Profiling/Metabolite Analysis Principal Investigators & Team Leaders (several positions available)

The successful candidates will establish NADI's efforts in protein profiling (proteomics) and metabolite analysis. Responsibilities will include supervising a team of scientists in the research and development of protein maps, protein interactions, metabolite analysis and the development of new technologies. This work will involve close collaboration with both internal Novartis and external partners.

Requirements include a Ph.D. in Biochemistry or Chemistry with several years' experience in protein analysis, mass spectrometry and bioinformatics. Strong communication and organizational skills are essential.

NADI offers excellent compensation and a great benefits package, including 401k. For immediate and confidential consideration, please send resume/salary history to: Novartis Agricultural Discovery Institute, Inc., HR Dept - PMD1, 3050 Science Park Road, Suite 102, San Diego, CA 92121-1102. Fax: (619) 784-8995. AA/EOE.

www.nadii.com

Launch your career to new heights with Job Alerts.



**FREE
one-time
registration;
weekly job
notification!**

Science's Job Alerts
service delivers weekly
notification via e-mail of
job openings matching
your job search criteria.

**Science
Professional
Network**

www.scienceonline.org
Click on *Science Careers*

NIH Vaccine Research Center

Employment Opportunities

The Vaccine Research Center (VRC) at the National Institutes of Health has been newly established to conduct research that facilitates the development of effective AIDS vaccines. The VRC will open in August 2000 in a new building on the NIH campus in Bethesda, Maryland. Activities in the Center will include 1) basic research to establish mechanisms of inducing long-lasting protective immunity against HIV and other pathogens that present special challenges to vaccine development, 2) the conception, design, and preparation of vaccine candidates for HIV and related viruses, and 3) laboratory analysis, animal testing, and clinical trials of such candidates. The VRC will conduct a comprehensive program of research on the NIH intramural campus and will work with scientists in academic, clinical, and industrial laboratories through a program of national and international collaborations. The VRC will actively seek industrial partners for the development, efficacy testing, and marketing of vaccines and focus the development of new methodologies and training opportunities that will benefit all HIV vaccine researchers. The potential scientific advances, methodologies, and resources will also provide the basis for research on vaccines for other diseases.

To achieve these goals, the VRC is now recruiting outstanding scientists for tenure and tenure track positions in the areas of virology, immunology, and translational research. Though the building will open in August 2000, its activities will start sooner, and support for the laboratories can also begin prior to this date. For each of the opportunities described below, particular consideration will be given to individuals with scientific excellence who are seeking to work in a collegial environment and in close collaboration with one another in an effort to develop and analyze AIDS vaccine candidates. The primary focus of study will be HIV, though applications to other infectious agents and malignancy will also be considered. Established investigators, as well as newly-independent scientists, are sought for these positions. Resources for support of each laboratory, including support personnel, post-doctoral fellows, supplies, and core facilities, will be provided. Applicants must have demonstrated outstanding accomplishments in one or more of the areas listed below.

Positions in Virology

A range of individuals are sought for these positions, whose backgrounds encompass basic aspects of viral infection related to vaccine development, immune responses to viruses, vector development, viral pathogenesis, viral gene regulation and HIV or SIV biology. Please direct inquiries to: Dr. Malcolm Martin, Chief, Laboratory of Molecular Microbiology, Division of Intramural Research, NIAID at (301) 496-4012 or by email: mmartin@niaid.nih.gov.

Positions in Immunology

Scientists are sought who have experience in one or more of the following areas: basic aspects of induction and maintenance of immunologic memory and expression of immune effector functions, the nature of protective immunity to HIV, SIV and/or other pathogens, the structure of key viral epitopes, the dynamics of human immune responses, and the nature and analysis of responses to vaccines. Individuals with experience in theoretical aspects of the interaction of HIV and the immune system and of responses to vaccines will also be considered. The primary focus of study in the VRC will be HIV, though analysis and induction of protective immunity to other infectious agents and malignancies will also be considered. Please direct inquiries to: Dr. William Paul, Chief, Laboratory of Immunology, Division of Intramural Research, NIAID at (301) 496-5046 or by email: wpaul@niaid.nih.gov.

Positions in Clinical and Translational Research

A range of individuals are desired, whose activities might involve quantitation of human immune responses, vector development and characterization, production relevant to vaccination, regulatory issues, and quality control and assurance. Individuals should have experience and interest in development of quantitative assays in immunology or virology, production of material under GMP/GLP conditions or assistance in Phase 1 clinical evaluation of immunogens. Please direct inquiries to: Dr. Larry Arthur, Director, AIDS Vaccine Development Program, NCI at (301) 846-1408 or by email: arthur@avpaxp1.ncifcrf.gov.

APPLICATION PROCESS: Applicants must be U.S. citizens, resident aliens, or nonresident aliens with a valid employment-authorized visa. Salary depends on degree and qualifications. Salary up to \$151,800 per annum. Other incentives may be available. A curriculum vitae, bibliography, three letters of reference, a detailed statement of research interests and selected publications should be submitted to: Ms. Lisa Poindexter-Steed, Office of Human Resources Management, NIAID, Building 31, Room 7A27; 31 Center Drive, MSC 2520, Bethesda, Maryland, 20892-2520. Applicants interested in applying for more than one discipline, must submit a complete package for each and cite the vacancy announcement number and scientific opportunity. The vacancy announcement numbers are: AI-99-079 for virology opportunities; AI-99-080 for immunology opportunities, and AI-99-081 for clinical and translational opportunities. All information provided by applicants will remain confidential and will only be viewed by authorized officials of the NIAID.

SENIOR SCIENCE ADVISOR FOR THE GRAND CANYON MONITORING AND RESEARCH CENTER, SL-XXX SENIOR LEVEL (SL)

The U.S. Geological Survey (USGS) is seeking candidates for the full-time position of Senior Science Advisor for the Grand Canyon Monitoring and Research Center in Flagstaff, Arizona. This position is multidisciplinary and may be classified as a SL-0401, Biologist; SL-1301, Physical Scientist; or SL-1315, Hydrologist.

The incumbent serves as the Senior Science Advisor for the Grand Canyon Monitoring and Research Center, and is responsible for the scientific leadership, program formulation, technical integration, and guidance of Center programs designed to accomplish departmental goals and objectives related to the management of the Colorado River and the resulting effects on the Grand Canyon ecosystem. The monitoring and research is conducted in the field of fluvial geomorphology and river ecosystem science (including aquatic ecology, archeology, terrestrial ecology, endangered species recovery, geochemistry, limnology, riparian ecology, river geomorphology, river hydraulics, river mechanics, river restoration, sedimentation, and social and cultural research) to satisfy the mandates of Section 1805 of the Grand Canyon Protection Act as they apply to physical, biological, and cultural resources of the Grand Canyon. Incumbent will provide the scientific expertise for needed integration of physical, biological, and socioeconomic science programs.

Individuals interested in this position should contact the Human Resources Office at (703) 648-6131 to receive a complete vacancy announcement which describes job requirements (including Knowledge, Skills, and Abilities (KSA's) required for the position), an application, and evaluation procedures. Applications (Optional Application for Federal Employment (OF-612), or resume) must be received at the following address by July 8, 1999 and should reference SL-99-01. A Reference and Qualifications Analysis form and a narrative qualifications statement addressing the KSA's should also be submitted by the above date and will be used in the evaluation of candidates.

Applications can be mailed, faxed, or delivered in person. Regardless of the method of delivery, it is your responsibility to ensure your application's successful conveyance. Faxed applications must not exceed 10 pages in length and must be received by 12:00 midnight on the closing date of the announcement. Mailed or hand delivered applications must be received by the close of business (4:30 pm) on the closing date specified in the announcement.

U.S. Geological Survey, Personnel Staffing Services Branch, 601 National Center, Reston, Virginia 20192, FAX (703) 648-4113

The U.S. Geological Survey is an Equal Opportunity Employer
U.S. citizenship is required
U.S. Geological Survey

Chugai Biopharmaceuticals, Inc (CBI), located in San Diego, CA, is a wholly owned subsidiary of Chugai Pharmaceuticals, Japan. CBI's research activities are devoted to the discovery and development of innovative therapeutic products with a particular focus on cardiovascular disease, cancer and inflammation. We are currently seeking an outstanding individual for the following challenging position:

PH.D. PHARMACOLOGIST/ CELL BIOLOGIST

The successful candidate will join multidisciplinary project teams involved in small molecule drug discovery in the cardiovascular and cancer fields. He/she will design and execute assays to prioritize potential lead compounds based on their functional pharmacological properties.

We are seeking a talented individual with a Ph.D. and at least 3-5 years of postdoctoral training in cellular pharmacology and a proven track record in the pharmaceutical industry. A strong background in cardiovascular research including experience with in vitro and in vivo models (angiogenesis, wound healing, tumor and matrigel assays) is required. Knowledge of cytokine and cancer biology as well as toxicology testing a plus, as is familiarity with biological and chemical data management tools. Excellent analytical and communication skills as well as ability to work in a multidisciplinary project team are essential.

CBI offers an exciting work environment, excellent benefits and competitive salary. Please send your resume to:
CBI, Attn: Human Resources Department
(C99/05/SCI), 6275 Nancy Ridge Drive, San Diego, CA 92121; Fax 619-535-5996. EOE.



CHUGAI BIOPHARMACEUTICALS, INC.

POSTDOCTORAL FELLOW GENETICS OF DIABETES

The Max McGee Diabetes Research Center at the Medical College of Wisconsin and Children's Hospital of Wisconsin seeks an enthusiastic and able postdoctoral fellow to take a lead role in a project exploring gene and protein expression differences in diabetics vs. non-diabetics. Position requires prior experience in beta cell biology and in the isolation of beta cells from rodents. The successful candidate will join an interdisciplinary team at the Center, who will use emerging technologies to integrate mapping, sequencing and expression data to produce a functional genomics framework to delineate diabetogenic pathways for further investigation.

Interested candidates may send a curriculum vitae with names and addresses of 3 references to:

Attn: Jane Martell
Department of Pediatrics
Medical College of Wisconsin
8701 Watertown Plank Rd, MRC756
Milwaukee, WI 53226



EOE/AA/M/F/D/V

Read All About It



www.scienceonline.org

Click on "Science Careers."



EurekaAlert!

Now available for the first time on *Science* Professional Network, EurekaAlert!, a comprehensive website about the latest research advances in science, medicine, health, and technology. An average of 20 research news releases are posted each day on EurekaAlert!

Science
Real jobs. Right now.

BURROUGHS WELLCOME FUND

Career awards provide \$500,000 to support advanced postdoctoral training and initial faculty appointment.

Open to U.S. and Canadian biomedical scientists.

The application deadline for career awards that begin in the year 2000 is October 1, 1999.

The Burroughs Wellcome Fund is an independent private foundation whose mission is to advance the medical sciences by supporting research and other scientific and educational activities.

4709 Creekstone Drive, Suite 100
Durham, NC 27703-8472
(919) 991-5100 Fax (919) 941-5884
E-mail: info@bwfund.org
Website: <http://www.bwfund.org>

BIOMEDICAL
RESEARCH FUNDING

CAREER AWARDS IN THE BIOMEDICAL SCIENCES

These competitive awards are intended to foster the development and productivity of biomedical researchers who are early in their careers and to help them make the critical transition to becoming independent investigators. The awards provide approximately \$500,000 in support to bridge advanced postdoctoral training and the first three years of faculty service. Recipients may spend part of the award period at institutions in the United Kingdom or the Republic of Ireland. It is anticipated that at least 21 awards will be made, with some awards targeted specifically at researchers in reproductive science.

Congratulations to BWF's Newest Career Award Recipients!

BWF in 1999 made 24 Career Awards in the Biomedical Sciences. The new awardees are:

Ravi Allada, M.D. Brandeis University.

Discipline: Genetics

Oscar M. Aparicio, Ph.D. Massachusetts

Institute of Technology.

Discipline: Cell biology and regulation

Nenad Ban, Ph.D. Yale University.

Discipline: Structural biology

Azad Bonni, M.D., Ph.D. Harvard Medical

School. *Discipline: Neuroscience*

Thomas R. Clandinin, Ph.D. University
of California-Los Angeles School of Medicine.

Discipline: Neuroscience

Michael K. Cooper, M.D. Johns Hopkins
University School of Medicine.

Discipline: Developmental biology

Paul De Koninck, Ph.D. Stanford University

Medical Center. *Discipline: Neuroscience*

Elizabeth A. Finch, Ph.D. Duke University

Medical Center. *Discipline: Neuroscience*

Robert C. Flaumenhaft, M.D., Ph.D.

Harvard Medical School.

Discipline: Cell biology and regulation

Timothy P. Galitski, Ph.D. Massachusetts
Institute of Technology. *Discipline: Genetics*

Patrick A. Grant, Ph.D. Pennsylvania

State University. *Discipline: Biochemistry*

Michael Graziano, Ph.D. Princeton University.

Discipline: Neuroscience

Matthias Gromeier, M.D. State University
of New York-Stony Brook.

Discipline: Microbiology

Zhigang He, M.D., Ph.D. University
of California-San Francisco School of Medicine.

Discipline: Neuroscience

Laura J. Knoll, Ph.D. Stanford University

Medical Center. *Discipline: Parasitology*

Bruce T. Lahn, Ph.D. Massachusetts Institute

of Technology. *Discipline: Reproductive science*

Thomas Perkins, Ph.D. Princeton University.

Discipline: Biophysics

Jill Rafael, Ph.D. University of Oxford.

Discipline: Genetics

Matthew Redinbo, Ph.D. University

of Washington. *Discipline: Structural biology*

Maria A. Schumacher, Ph.D. Oregon

Health Sciences University.

Discipline: Structural biology

Krishna V. Shenoy, Ph.D. California Institute

of Technology. *Discipline: Neuroscience*

Theodore S. Steiner, M.D. University
of Virginia Health Sciences Center.

Discipline: Microbiology

Michael Yaffe, M.D., Ph.D. Harvard Medical

School. *Discipline: Biochemistry*

Deborah L. Yelon, Ph.D. University

of California-San Francisco School of Medicine.

Discipline: Genetics

ADDITIONAL CAREER-DEVELOPMENT FUNDING FOR BIOMEDICAL SCIENTISTS

- Hitchings-Elion Fellowships provide \$332,500 over five years to support postdoctoral scientists who want to pursue research training in the United Kingdom or Ireland and then begin a faculty appointment in the United States or Canada. *Application deadline: August 2, 1999.*
- Several fellowships, administered in partnership with other organizations, support researchers in the reproductive sciences and in the life sciences. *Application deadline: October 1, 1999.*
- BWF Research Travel Grants provide support for scientists and medical historians to work for brief periods (from two weeks to six months) in the United Kingdom or Ireland. *Application deadlines: March 1, July 1, and November 1 of each year.*

BWF also offers major awards to established independent physician-scientists in translational research whose work links the laboratory bench and clinical medicine; to new investigators in the pharmacological or toxicological sciences; and to both new and established investigators in molecular parasitology, malaria, and pathogenic molecular mycology.

Program information is available on the BWF's website at <http://www.bwfund.org>

GeneSoft, Inc.

GeneSoft, Inc. is a dynamic young biotechnology company dedicated to the development of novel drugs for the treatment of human diseases. GeneSoft's technology platform is based on a proprietary class of small molecules that specifically bind DNA and thereby selectively interfere with gene expression. If you are interested in joining our interdisciplinary team of highly motivated, future-oriented scientists dedicated to the application of our technology, consider GeneSoft Inc. as an equal opportunity employer.

Currently, we have two highly attractive openings for:

Ph.D. Molecular Biologist

To qualify, the ideal candidate must have a Ph.D. with 4 or more years of academic or industrial postdoctoral training in molecular biology, and must have a demonstrated level of accomplishment as evidenced by publications. This position requires an in-depth knowledge of the mechanisms governing gene transcription by RNA Pol II, and a strong background in functional genomics in the domains of oncology and immunology. Expertise in assay development for screening of transcriptional regulators will be highly preferred.

Ph.D. Microbiologist

The successful candidate will establish and develop our antimicrobial program aiming at the discovery of a new class of antibiotics. This position requires the candidate to have a Ph.D. with 4 or more years of academic or industrial postdoctoral training in microbiology of infectious diseases, with an in-depth knowledge of genes and pathways essential for the replication and virulence of Gram positive organisms, expertise in assay development for screening of novel antimicrobial compounds, and experience with animal models for infectious diseases.

The successful candidates are enthusiastic, technically excellent with dedication to quality and application orientation of science. Excellent communication skills and the ability to work in an interactive multidisciplinary environment are essential.

GeneSoft offers competitive salaries and benefits including an attractive equity participation in a growing company and 401K. Please forward your detailed resume and a cover letter to:

GeneSoft Inc.
Human Resources
Two Corporate Drive
South San Francisco, CA 94080



UNIVERSITY OF OTTAWA HEART INSTITUTE / INSTITUT DE CARDIOLOGIE DE L'UNIVERSITÉ D'OTTAWA

The University of Ottawa Heart Institute invites applications for a faculty position at **Assistant or Associate Professor** level. We offer excellent research facilities and support. This position presents a unique opportunity in which the successful candidate will work with the multi-disciplinary MRC Lipoprotein & Atherosclerosis Research Group encompassing varied scientific backgrounds. The applicant should have either a Ph.D. or M.D. degree or equivalent and a minimum of 3 years of postdoctoral experience, demonstrated research expertise in the area of molecular cell biology, and an outstanding record of research accomplishments. The applicant should also have a commitment to developing an independent and vigorous research program in any area of fundamental cell biology, including molecular and cellular biology aspects of lipids. Review of applications will begin immediately and continue until the position is filled. In accordance with Canadian Employment and Immigration guidelines, preference will be given to Canadian citizens and permanent residents of Canada. Applications should include a résumé, statement of research interests, and the names, addresses, and telephone numbers of three referees sent to: **Dr. Zemin Yao, Search Committee Chair, Lipoprotein & Atherosclerosis Group, University of Ottawa Heart Institute, 40 Ruskin Street, Room H442, Ottawa, Ontario, Canada, K1Y 4W7. Tel: 613-798-5555 ext. 8711; Fax: 613-761-5281; e-mail: zyao@ottawaheart.ca.**

We're **Baxter Healthcare Corporation**, a leading health care company and one of the world's foremost providers of critical therapies for life-threatening conditions. Our pioneering medical technology has resulted in innovative healthcare that has improved human life around the world. Our **Hyland Immuno Division**, a global leader in the pharmaceutical manufacturing industry, currently seeks talented individuals to join us at our **Duarte, CA** facility:

Research Scientist - Plasma R&D

Identify and evaluate state-of-the-art technology in the area of protein characterization; train and supervise colleagues in the use of such technology; and develop project plans, resource requirements, goals and time lines. A PhD with 3-5 years experience in the area of protein characterization, biochemistry, and product development, specifically in applying biochemical and biophysical technology to the study of proteins. Prior experience with plasma protein (immunoglobulin and coagulation factors) preferred.

Immunologist - Plasma R&D

Play an important role in developing novel *in vitro* and *in vivo* analytical systems which provide an understanding of the mechanisms of action on immunoglobulins which are suitable for intravenous or oral administration. Hands-on experience will include cell culture and FACs analysis. A thorough knowledge of infectious diseases, immunomodulation and animal models desired. A PhD in Immunology, Cell Biology or Microbiology preferred.

Research Scientist - Wound Management R&D

Culture human-derived cell lines, develop cell-based assays to test biomatrix protein products, and apply molecular biology to analysis of cell differentiation and protein expression. A PhD in Cell and/or Molecular Biology and up to 3 years postdoctoral experience are required. Ability to plan, conduct, and communicate state-of-the-art research in a team environment essential. Experience in fluorescence microscopy, digital image analysis, and protein characterization highly desired.

We provide our talented professionals with competitive salaries and comprehensive benefit packages. For consideration, please send/fax your resume, indicating position of interest, to **Attn: Marty Blinde: 626-305-5020 (fax); blindem@baxter.com (e-mail) • www.baxter.com • EOE M/F/D/V**

Baxter

New England Biolabs

POSITION AVAILABLE

New England Biolabs, a world leader in the production of restriction endonucleases and other related products for the recombinant DNA field, seeks applicants for:

Postdoctoral Fellowship:

Available for a recent Ph.D. to study protein splicing. Experience in protein engineering, biochemistry, bio-organic chemistry, genetics or molecular biology is required. Among the projects under study are the control of protein splicing *in vivo* and *in vitro*, splicing of intein fragments *in trans*, intein phylogeny and intein structure/function.

In addition to competitive salary, New England Biolabs has an open policy on publication and collaboration with academic researchers. Attendance at national meetings and interaction with academic institutions is encouraged.

Send a resume and three references to:
Dr. Francine Perler.

New England Biolabs, Inc.
32 Tozer Road
Beverly, MA 01915
An Equal Opportunity
Employer



NEW ENGLAND
BioLabs Inc.



**bild der
wissenschaft**

Science

www.scienceonline.org

*Both Science and bild der wissenschaft
invite you to:*

"Dinosaurs and Neanderthals" **What can we learn from them about Evolution?**

A lecture for the public

Featuring...

- ☐ Dino-Expert Prof. Paul Sereno, *University of Chicago*
- ☐ Palaeo-Geneticist Prof. Svante Pääbo,
Max-Planck-Institut for Evolutionary Palaeontology Leipzig, Germany
- ☐ Brain-Researcher Prof. Ernst Pöppel,
Center for Human Studies, Munich, Germany

Introduction Dr. Floyd Bloom, Editor-in-Chief *Science*

Moderator Reiner Korbmann, Editor-in-Chief *bild der wissenschaft*

Presentations will be in English

29th June 1999

at 18.00 hr

**Ludwig-Maximilians
University of Munich,
Germany**

**Auditorium E 07 of
Physikalisches Institut
Schellingstrasse
(Entrance: Schellingstrasse
4, Subway: University)**

Is Science your missing link?

Subscribe to Science

- ☐ Yes, I wish to join AAAS
and receive a one year
subscription to *Science*
for only \$200

Name Address

- ☐ Yes, I wish to join AAAS
and receive a one year
subscription to *Science*,
plus *Science ONLINE* for
\$212

Country Email

Subject Discipline

Payment: ☐ I enclose a cheque made payable to AAAS for US\$ ☐ Please charge my credit card US\$

Card type VISA / Mastercard / AMEX (circle one) Card number Expiry Date

Signature

Date

Fax your order to +44 (0)1223 326501

* Rates are applicable only to people ordering from outside the US, Canada and Mexico.

AAAS Membership includes 51 issues of *Science*. Prices are valid until 31/12/99. Eurocheques not accepted. \$62 plus postage allocated to *Science*. Please allow 4-6 weeks for receipt of first issue. For more information call +44 1223 326500. Data Protection: By ordering *Science* I will receive mail related to my account, however:

☐ Please do not make my name available for any offers from parties outside AAAS. ☐ Please do not make my name available for any offers from parties outside AAAS, or from other AAAS or *Science* products.

Return subscriptions to: *Science*, Science International, Bateman House, 82-88 Hills Road, Cambridge CB2 1LQ, UK

S9XC55

INTERNATIONAL ONLY*

RESEARCH ASSISTANT/ SR. RESEARCH ASSISTANT

The California Institute of Technology, globally recognized and respected for its research and technical instruction in Science and Engineering, is seeking one or more individuals to join their core facility for the production of genetically altered mice.

Successful candidates will be skilled in some or all of the following: pro-nuclear and blastocyst injection; maintenance of records; maintenance of core embryonic stem cell culture lab; planning, scheduling and coordination of work of participants; teaching of technical procedures; oversight of embryo production for microinjection; provision of input on the development of new and improved techniques; oversight of record keeping and other duties as assigned.

Applicants must possess a Bachelor's degree in Biology; a minimum of 2 years' related experience or equivalent; experience in a laboratory setting with pro-nuclear and/or blastocyst injection and/or in tissue culture of mammalian cells and/or specifically murine embryonic stem cells; and an understanding of ES cell technology and theory behind approaches for gene addition and gene deletion in the mammalian system.

Please send your resume & salary requirements, referencing **Job #BIO-934**, to: jobs@hr.caltech.edu (ASCII text only, no attachments). Fax: (626) 792-0547, or mail: **Caltech Employment Dept., 1200 E. California Blvd. (MC 101-6), Pasadena, CA 91125.**

Caltech is an AA/EOE. Women, minorities, veterans and disabled persons are encouraged to apply.



Professor and Director Vascular Biology Research Group

Albany Medical College announces the availability of a tenure-track, senior position as Professor (or Associate Professor) with responsibility to provide leadership to an Interdisciplinary Vascular Biology Research Program. Scientists with a Ph.D., M.D., or M.D./Ph.D. currently at the Associate Professor or Professor level are invited to apply. Applicants must have a record of research excellence, NIH funding, and experience in mentoring graduate students or postdoctoral fellows. Candidates should have a background in either cardiovascular physiology, pharmacology, or experimental pathology. Research interest in cardiopulmonary disease or vascular wall pathology using cellular and molecular approaches would be of special interest. Academic appointment can be in a basic science and/or clinical department. Successful candidate will have limited teaching and/or clinical responsibilities defined by their own personal interest.

Expansion of the College's research programs coincides with the Medical Center's new Strategic Research Plan to develop interdisciplinary research and training programs which emphasize Neurosciences, Infectious Disease & Immunology, Cell & Molecular Biology and Vascular Biology. Interdisciplinary Programs are coordinated by two interactive Directors. Alignment of the Vascular Biology research programs with the Clinical Centers in Heart and Vascular Diseases is projected.

Research interests of current Vascular Biology faculty include vascular smooth muscle cell signaling, endothelial barrier integrity, hypertension, vascular reactivity, coronary disease, ischemia-reperfusion injury, nitric oxide, pulmonary edema, and inflammatory lung disease. Additional tenure-track Assistant Professor faculty positions are budgeted to build the Vascular Biology program.

Applicants should submit curriculum vitae to: **Dr. Thomas M. Saba, Senior Vice President for Research, Professor & Chair, Physiology & Cell Biology, Albany Medical College, Mail Code 134, 47 New Scotland Avenue, Albany, NY 12208.**

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



POSTDOCTORAL POSITION SIGNAL TRANSDUCTION BY MITOGENIC RECEPTORS

A postdoctoral position is available to study the role of mitogenic receptors, protein kinase C system, phosphatases or tumor suppressor genes in modulating the growth, survival, development and progression of astroglial brain tumors. The above research areas are being investigated using molecular, biochemical and pharmacological approaches and knockout mice models. Candidates should have a strong research experience and a recent Ph.D. in Molecular Biology, Biochemistry, Neuroscience or a related field. Interest in pursuing a career in cancer research is a plus.

St. Jude Children's Research Hospital (Danny Thomas, Founder) is an outstanding research center for biomedical research and provides an exceptional environment for scientific achievement and career development. Stipend and benefits are highly competitive.

Send a letter of interest, curriculum vitae and names of three references to: **Dr. M. Sharif, Department of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, Tennessee 38105.**

An Equal Opportunity/Affirmative Action Employer

Staff Scientist-Antimicrobials

Be at the forefront of drug development research with DuPont Pharmaceuticals Company. We are focused on meeting unmet medical needs through the discovery and development of innovative compounds leading to novel pharmaceuticals. We currently have a Staff Scientist position available at our facilities in Wilmington, DE.

The ideal candidate will assist in developing biochemical and microbiological assays to examine the mechanism of action of antifungal agents and identify/evaluate novel agents and targets. The candidate must have a working knowledge of microbial physiology and biochemistry, plus laboratory experience in molecular microbiology, biochemistry, and assay development, as well as good verbal and written communication skills. A BS/MS in Biochemistry, Molecular Biology, or Microbiology is required.

DuPont Pharmaceuticals Company can offer you an excellent compensation and benefits package. To be considered, please forward your resume to: DuPont Pharmaceuticals Company, Human Resources-SD-ND, E400/2413, P.O. Box 80400, Wilmington, DE 19880-0400. An equal opportunity employer, M/F/D/V.



DuPont Pharmaceuticals Company

SCIENTIFIC PROGRAM MANAGER

Major voluntary health agency, NYC, is seeking a Scientific Program Manager to assist in the planning of research training grants & programs. Will help determine program priorities, funding levels, prepare analyses of research requirements, and coordinate committee activities.

Recent Ph.D. in biomedical science & excellent written, verbal and interpersonal skills are essential. Postdoctoral research or administrative experience a plus. Please fax your resume with salary history & requirements to: **Dept S, (212) 476-0535**. EOE M/F/D/V

COURSES & TRAINING

Genetic Approaches To Complex Heart, Lung, and Blood Diseases

September 1 - 10, 1999

The Jackson Laboratory
Bar Harbor, Maine

Course Organizers:

Beverly Paigen
The Jackson Laboratory;
William Nierman
The Institute for Genomic Research

Contact Information:

Karen Kane
Phone: (207)288-6263;
Fax: (207)288-6080;
E-mail: kgk@jax.org;
www.jax.org/courses
Course Fee \$850.00

includes meals & lodging

Application Deadline Extended until the course is full

This intensive course examines polygenic diseases such as hypertension, coronary heart disease, asthma, etc. The course includes animal models, phenotype determination, genetic epidemiology, genome screening, linkage analysis, quantitative trait analysis, high resolution mapping, positional cloning, gene discovery, clinical applications, and social and ethical issues.



LOVELACE RESPIRATORY RESEARCH INSTITUTE

Postdoctoral Positions Available

Lovelace Respiratory Research Institute is committed to the cure of respiratory diseases through research aimed at understanding their causes and biological mechanisms, eliminating exposures to causal agents, and developing improved treatments. Based on its diverse research capabilities, its close working relationships with universities and national laboratories, and its endowed and sponsored research programs, LRRRI is one of the nation's largest independent, non-profit biomedical research organizations, and the nation's only such organization wholly dedicated to basic research on respiratory health problems.

LRRRI is expanding several of its programs, providing opportunities for postdoctoral participants with expertise and interests in these areas.

Lung Cancer

Work on transcriptional regulation of gene expression by mutant p53 tumor suppressor and construction of tumor-specific gene therapy vectors. **Job #E1799.**

Research to identify factors that target genes for inactivation by aberrant CpG island methylation, define pathways involved in etiology of adenocarcinoma of the lung, discover novel genes, and develop gene therapy approaches for lung cancer. **Job #E1899.**

Research studying signal transduction pathways in lung cancer cell signaling. **Job #E1999.**

Studies on application of advanced computational approaches to modeling stochastic cellular effects of genotoxic chemicals and ionizing radiation. Prior experience in applying Monte Carlo methods, knowledge in the field of molecular biology and an interest in conducting lung cancer-induction-related modeling research preferred. **Job #E2099.**

Asthma/Pulmonary Immunology

Investigations of chemokine-mediated signal transduction and its relationship to the regulation of immune cell function. **Job #E2199.**

Studies on the molecular mechanisms of host defense and inflammation during lung pathogenesis to viral and bacterial infection. **Job #E2299.**

Studies on the role of cytokines and other inflammatory factors in modulating expression of apoptotic regulators in mucous cells of chronic bronchitis and asthmatics. **Job #E2399.**

Aerosol Science

Studies on exposure assessment, radiation dosimetry, ambient PM measurements, workplace aerosol measurements, modeling of respiratory tract deposition, computational fluid dynamics, drug delivery systems, and aerosol instrument design and calibration. Prior experience in aerosol science/technology and health physics or industrial hygiene preferred. **Job #E2499.**

Toxicology

In vivo and in vitro studies in the toxicity of air pollution constituents including combustion-derived particulate matter. **Job #E2799.**

Postdoctoral participants receive a competitive stipend, health insurance, and a relocation allowance. Candidates should send a cover letter referring to the **job number and a CV** to Human Resources, P.O. Box 5890, Albuquerque, New Mexico 87185 or fax to 505/845-1035 or e-mail to HRMAIL@LRRRI.ORG. For more information about LRRRI, see the LRRRI webpage: WWW.LRRRI.ORG.

POSITIONS OPEN

NSERC UNIVERSITY FACULTY AWARD EVOLUTIONARY BIOLOGY University of Toronto at Scarborough Division of Life Sciences

The Division of Life Sciences of the University of Toronto at Scarborough invites applications for a University Faculty Award (UFA) from the National Sciences and Engineering Research Council (NSERC) of Canada. Candidates should have an active research program in evolutionary biology at the molecular, cellular, or organismal level. *NSERC guidelines stipulate that candidates for this Award must be women who are Canadian citizens or permanent residents of Canada.* A tenure-track position at the **ASSISTANT PROFESSOR** level will accompany the successful NSERC UFA and will start on July 1, 2000. Starting salary will be commensurate with qualifications.

Along with a curriculum vitae, applicants should send a letter that includes a brief description of their proposed research program and evidence of teaching ability. The application, letters from three referees, and copies of recent reprints should be sent to: **Professor John Youson, Chair, Search Committee, Division of Life Sciences, University of Toronto at Scarborough, 1265 Military Trail, Scarborough, Ontario M1C 1A4 Canada. FAX: 416-287-7642.**

The closing date for this competition is August 16, 1999. Further information on this NSERC UFA may be obtained from the NSERC website: http://www.nserc.ca/programs/sf/UFA_c.htm.

The University of Toronto encourages applications from members of visible minorities, aboriginal peoples, and persons with disability.

RESEARCH ASSISTANT PROFESSOR POSITION COMPUTATIONAL POPULATION GENETICS

Applications are invited for a position in the Department of Genetics, University of Washington. We are looking for a Population Biologist to design, implement, test, and distribute complex statistical algorithms, using the C programming language, in order to estimate patterns of migration, population size, and other parameters from molecular data. Duties of the position include participating in the Department's teaching program as well as publishing papers and making conference presentations. Research work will include development of new algorithms and statistical comparisons with existing algorithms (F statistics, pairwise methods, etc.), including testing the algorithms on real and simulated data. A Ph.D. in the biosciences is required. Application deadline is July 31, 1999. Applications should be submitted to: **Research Assistant Professor Search Committee, Department of Genetics, University of Washington, Box 357360, Seattle, WA 98195-7360.** The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT in neuroscience. The Department of Neuroscience at the University of Florida College of Medicine is seeking to fill a non-tenure-track position with an anticipated starting date of July 1, 1999. The annual salary is negotiable. The focus of this search is for an individual with research expertise and interest in molecular biology and gene regulation as it relates to the inflammatory response. Experience with *in vivo* footprinting using LMPCR, promoter analysis by transient transfection, and site-directed mutagenesis is needed. In addition, knowledge of the events involved in the acute inflammatory response such as cytokine-dependent gene regulation is extremely desirable. Applications are being sought from individuals with a Ph.D. and training in the field of molecular biology. Postdoctoral experience is preferred. Application deadline is June 17, 1999. Applications should be sent to: **Dr. Harry S. Nick, Ph.D., Department of Neuroscience, University of Florida, College of Medicine, P.O. Box 100244, Gainesville, FL 32610.** *Equal Employment Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

BIOLOGICAL SCIENTIST

The International Life Sciences Institute, a worldwide nonprofit, scientific foundation, seeks a **SENIOR SCIENTIST** for its Risk Science Institute. Applicants must have expertise in human health and/or environmental risk assessment; experience with water quality issues desirable. This non-laboratory position requires a Ph.D. in a biological science and three-plus years of professional experience. The successful applicant will work with scientists from diverse disciplines on a wide range of issues fundamental to improving the scientific basis of risk assessment. Responsibilities include conceptualizing and developing projects, organizing and staffing technical workgroups, evaluating and analyzing scientific data, drafting and editing manuscripts, and identifying and soliciting funding support for projects. Position level and salary commensurate with experience. To be considered, send detailed résumé, publication list, names and addresses of three references, and salary history to: **Human Resources, International Life Sciences Institute, 1126 16th Street N.W., Washington, DC 20036. FAX: 202-659-3859.** *Equal Opportunity Employer/Minorities/Females.*

STAFF SCIENTIST. One position available for **YEAST MOLECULAR GENETICIST** with postdoctoral experience in the molecular pharmacology program.

#AS-9271: Ph.D.-level scientist to work in NCI-sponsored project as member of Yeast Profiling Team studying mechanisms of sensitivity for novel and established chemotherapeutics. Will direct construction and use of yeast damage response mutant collection. Indicate job number on cover letter and send with curriculum vitae, three reference letters, and a description of current research endeavors and long-term interest to:

Julian Simon, Ph.D.
Molecular Pharmacology Program
Fred Hutchinson Cancer Research Center
1100 Fairview Avenue North
Mailstop D2-100
Seattle, WA 98109

UNIVERSITY OF FLORIDA

Seeks a **CLINICAL ASSISTANT PROFESSOR** in the Department of Medicine, Division of Pulmonary/Critical Care. M.D. degree. Board-certified in pulmonary and critical care is essential, as is at least five years of clinical experience. Experience in clinical research in critical care is desirable. The responsibilities will include clinical care and teaching in the MICU and Pulmonary Consultation Service. Salary and benefits commensurate with experience. Recruiting deadline July 1, 1999. Anticipated starting date October 1, 1999. Please reply with curriculum vitae to: **Eugene Ryerson, M.D., Professor, Division of Pulmonary/Critical Care, Box 100225 JHMC, Gainesville, FL 32610.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR MEDICAL GENETICS

Position available immediately in medical genetics research. Projects include linkage, mapping and identification of candidate genes for bone density, soft- and hard-tissue regeneration in animal and human studies. Candidates must have Ph.D. in molecular biology/genetics with experience in DNA isolation, cloning, PCR, and basic molecular biology techniques. Experience in molecular genetics research, grant-writing, and good publication record required. Salary and benefits competitive; possibility exists for long-term position. Please send cover letter, curriculum vitae, and names of three references to: **Dr. S. Mohan, Loma Linda University, P.O. Box 7210, Loma Linda, CA 92354.** *LLU is an Equal Opportunity Employer.*

POSITIONS OPEN

PLANT ECOLOGY UNIVERSITY OF TORONTO AT SCARBOROUGH

The Division of Life Sciences, University of Toronto at Scarborough, invites applications for a tenure-track position in plant ecology. Applicants must have a Ph.D. (or equivalent), and preferably one or more years of postdoctoral experience. The successful candidate will complement current research and teaching strengths in the division and will be expected to take an active role in both undergraduate and graduate teaching, and to develop a strong research program.

Interested applicants should submit a complete curriculum vitae, a statement of research and teaching interests, three letters of recommendation (including comments on teaching ability and publications), and copies of recent reprints to: **Dr. Ron Dengler, Associate Chair, Biology, Division of Life Sciences, University of Toronto at Scarborough, 1265 Military Trail, Scarborough, Ontario M1C 1A4 Canada.** Closing date for applications is September 30, 1999. The appointment will be at the **ASSISTANT PROFESSOR** level, and salary will be commensurate with qualifications. The position will be effective July 1, 2000, subject to budget approval. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples, and persons with disability.*

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PLANT SCIENCES MONTANA STATE UNIVERSITY-BOZEMAN

Montana State University-Bozeman seeks Assistant/Associate Professor of plant biochemistry, nine-month tenure-track position. Responsibilities include coordinating undergraduate biotechnology course, teaching course on plant metabolism. Requires a Doctorate in plant biochemistry or closely related field, significant publication record, and potential for excellence in undergraduate teaching. Must request complete application materials from: **Sarah Briggs, Plant Sciences Department, 333 Leon Johnson Hall, Bozeman, MT 59717-3140. Telephone: 406-994-4833; FAX: 406-994-1848; e-mail: sarah@montana.edu.** Screening begins July 1, 1999, start date January 1, 2000. *ADA/Equal Opportunity/Affirmative Action/Veterans Preference.*

ASSISTANT PROFESSOR. Albert Einstein College of Medicine, cryoelectron microscopy. The Albert Einstein College of Medicine is seeking to fill a tenure-track Assistant Professor position in the area of high-resolution cryoelectron microscopy. The successful candidate should have a strong background and record of publication in the use of cryoelectron microscopy to investigate the structure of macromolecular complexes at high resolution. The College of Medicine offers an exceptional environment for research in structural biology with expertise in NMR, X-ray crystallography, and light and electron imaging represented. Applicants should send a curriculum vitae, description of research interests, and three letters of reference to: **Cryoelectron Microscopy Search Committee, c/o Juanita Rey-DeCuffa, Belfer 312, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** *Equal Opportunity Employer.*

Tenure-track position in the rank of **ASSISTANT/ASSOCIATE PROFESSOR** is available in the Research Division of the Department of Gynecology and Obstetrics, Emory University School of Medicine. Topic of research interest is open and the Division specializes in multidisciplinary approach to basic medical research. Candidates with six or more years of postdoctoral experience with a strong research background and track record are encouraged to send application to: **Dr. Sampath Parthasarathy, Emory University, Department of Gynecology/Obstetrics, 1639 Pierce Drive, Atlanta, GA 30322.** E-mail: spartha@emory.edu.

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, evidence-based 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/>

GLOBAL OPPORTUNITIES

UNSW

THE UNIVERSITY OF NEW SOUTH WALES
SYDNEY AUSTRALIA



FACULTY OF MEDICINE SCHOOL OF ANATOMY

Lecturer/Senior Lecturer

The School teaches gross anatomy, histology, neuroanatomy and embryology to medical and science students, and has an active research program with particular strengths in neurobiology and cell biology. The successful applicant will be responsible for contributing to the teaching program of the School, carrying out research in an appropriate field, actively seeking external funding for that research and undertaking a share of administrative duties as required.

Essential criteria: medical qualifications or a relevant PhD; experience in the teaching of undergraduate students in one or more of the above subjects; demonstrated ability to undertake research; a capacity to attract external research funding and an ability to implement EEO/AA policies and programs.

The salary range for Lecturer is A\$48,678 - A\$57,806 per year, and for Senior Lecturer A\$59,629 - A\$68,757 per year. Level of appointment and commencement salary are dependent on qualifications and experience. A clinical loading of A\$16,009 per year may be paid by the University to an appointee who has medical qualifications registrable in New South Wales. Subject to the terms of the Faculty of Medicine's Private Practice scheme, an appointee may be able to undertake a limited amount of private practice.

The position is full-time (continuing) subject to satisfactory completion of a probationary period. Membership of a University approved superannuation scheme is a condition of employment.

Enquiries to Professor David Tracey on telephone (61 2) 9385 2471, facsimile (61 2) 9313 6252 or email: d.tracey@unsw.edu.au

Applications close 2 July 1999.

PLEASE QUOTE Ref 246SCI

Application Procedure

Applicants should submit written applications systematically addressing the selection criteria. QUOTING REFERENCE NUMBER. Include business and private telephone numbers; a complete resume, (copies of academic transcript and qualifications where appropriate); and the names, addresses (and preferably facsimile numbers) of at least two referees to: The Recruitment Officer, Human Resources, The University of New South Wales, Sydney NSW Australia 2052 by applications close date.

www.unsw.edu.au

78308

UNSW is an Equal Opportunity Employer with a smoke free workplace.

ANNOUNCEMENT

NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE

Special Announcement to Institutions

The National Space Biomedical Research Institute (NSBRI) announces a special opportunity for institutions to compete to become a member of the NSBRI Consortium.

NSBRI Announcement 99-01 (May 10, 1999)
An Opportunity to Become a Member of the
National Space Biomedical Research Institute
Consortium

Letter proposals will compete in a two-phase process. The second phase involves a more detailed application and a reverse site visit.

This announcement is available electronically via the Internet at
<http://www.nsbri.org>

Initial Letter of Application Due: July 2, 1999

Paper copies of this Announcement are available to those who do not have access to the Internet by calling 713-798-7412 or by writing to R. J. White, NSBRI, One Baylor Plaza, NA-425, Houston, TX 77030.

POSITIONS OPEN

STAFF ASSOCIATE COLUMBIA UNIVERSITY

The Gertrude H. Sergievsky Center has a full-time position for a Staff Associate on a study of Down syndrome and Alzheimer's disease. Responsibilities include cognitive assessment of adults with mental retardation, interviewing, medical record review, and phlebotomy. Previous experience with adults with mental retardation and interviewing required. Must be a licensed Phlebotomist. A car is required to travel to interview sites, with reimbursement for travel expenses and travel time; may require occasional evening work. B.A. required; M.A. in epidemiology, psychology, or biomedical studies preferred. Salary is \$31,000, with good benefits.

Qualified applicants should send résumés to: **Dr. Nicole Schupf, Gertrude H. Sergievsky Center, P&S Box 16, 630 West 168th Street, New York, NY 10032.**

Columbia University takes Affirmative Action toward Equal Employment Opportunity.

Immunology, virology, vaccines. **RESEARCH SCIENTIST (Ph.D.), RESEARCH ASSISTANT (M.S. or equivalent), and POSTDOCTORAL FELLOWS** to help develop vaccines for exotic BL4 viral agents (filoviruses) and improve existing vaccines (orthopoxvirus). Research Scientist: cellular immunology of viral vaccines, especially as applied to primates, is preferred; postdoctoral experience required. Assistant(s): versatility favored, as work includes immunology, virology, molecular biology, and viral pathogenesis. Appointments in circa five-year terms, renewable. *U.S. citizenship required.* NRC Associateships, both regular (recent Ph.D.'s or M.D.'s) and senior (for established Investigators), are also available to support basic research in related areas, in three- to five-year terms. Inquiries to: **Dr. Alan Schmaljohn or Dr. Mary Kate Hart, Virology Division, U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, Frederick, MD 21702. FAX: 301-619-2290.**

NEUROANATOMIST ASSISTANT PROFESSOR

The Department of Anatomy and Cell Biology seeks applications for a tenure-track faculty position. Requires a Ph.D. or equivalent and sufficient teaching and research experience to coordinate a neuroanatomy course for medical and graduate students. Candidates are expected to develop a strong, independent research program with external funding; start-up funds available. *Must be eligible for employment under I.R.C.A.* Send curriculum vitae, teaching experience, statement of current and future research plans, and three letters of reference to: **Dr. Bill Meek, Department of Anatomy and Cell Biology, Oklahoma State University College of Osteopathic Medicine, 1111 West 17th Street, Tulsa, OK 74107. Website: <http://osu.com.okstate.edu>.** Position will remain open until filled. *Affirmative Action/Equal Opportunity Employer.*

BIOTECHNOLOGIST

A nationally recognized research and development firm is seeking a highly creative Biotechnologist to lead a biosensor development program. At least seven years of experience in research and development beyond Ph.D., including at least three years in private-sector-applied programs with proven research and development management skills. Full-time position with excellent benefits package. *U.S. citizenship and drug test required.* Submit résumé, in confidence, with salary requirements to: **Arete Associates, Attention: Office Manager, P.O. Box 16269, Arlington, VA 22215. E-mail: personnel@arete-dc.com.** *Equal Opportunity Employer.*

RESEARCH POSITIONS available in the areas of molecular biology and genetics. Ph.D. required. Applicants should send curriculum vitae, references, and a brief description of research interests to: **Lynn Egloff, Department of Molecular Biology, Princeton University, Lewis Thomas Laboratory, Princeton, NJ 08544.** *Princeton University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN



The USDA, Agricultural Research Service (ARS), Food Safety and Health Research Unit, Western Regional Research Center, Albany, California is accepting applications for the position of **RESEARCH MICROBIOLOGIST (GS-13/14, depending on experience; \$60,818 to \$93,431, plus benefits).** The incumbent will be a **PERMANENT SCIENTIST** in a laboratory performing research within a broad project addressing the biology of bacterial human pathogens in food, especially fruits and vegetables. The overall project involves the study of the mechanisms involved in the introduction, survival, detection, identification, and virulence of human pathogens in manure, compost, treated wastewater, and irrigation water. The incumbent will lead a project to develop surrogate strains and methods for monitoring the transfer of microbes under simulated field conditions and for testing innovative new strategies for limiting the presence and virulence of pathogens in food and manure. The incumbent defines approaches, and plans experimental procedures, on aspects of the project involving (1) development of new methods for collecting and culturing microorganisms collected from air; (2) development of very sensitive methods for identification of microbes present in manure, treated wastewater, compost, and air samples; (3) development of methods for testing the biology of pathogenic and nonpathogenic reporter strains, and other microbes in environmental samples; (4) identification of nonpathogenic plant or other microbes that enhance the kill or decreased virulence of human pathogens in manure or compost. Ph.D. or equivalent Doctoral degree required, and one year of specialized experience in the study of microbes in manure/compost. *Candidates must be a U.S. citizen.* A complete copy of the vacancy announcement and where to apply can be found at <http://www.ars.usda.gov/asm/hrd/vacancy/vac2.html>; select announcement ARS-X9W-9329; or contact: **Personnel, Telephone: 510-559-6014.** Closing date for applications is July 12, 1999. For information, contact: **Stacey R. Pascoe, USDA, ARS, Western Regional Research Center, Albany, CA 94710. Telephone: 510-559-5610; e-mail: spascoe@pw.usda.gov.** *USDA/ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

PROSTATE CANCER RESEARCH FELLOWSHIPS

Named Fellowships are available for a rigorous training program in prostate cancer research at Columbia University Health Sciences. The program emphasizes the development of skills necessary for a basic research career in prostate cancer and will include extensive exposure to clinical aspects of the disease. Applicants should be recent Ph.D. recipients with experience in molecular biology (nucleic acid and protein manipulation and analysis). Proficiency in English (both written and oral communication skills) is required. Applicants should provide a curriculum vitae and three letters of recommendation to: **Dr. Ralph Buttyan, Department of Urology, Columbia University, Atchley Pavilion 11th Floor, 161 Fort Washington Avenue, New York, NY 10032.** *We take Affirmative Action toward Equal Employment Opportunity.*

Neuroanatomy/neuropathology (PH.D.) POSITION with leadership potential in an exciting multidisciplinary setting focusing on human neurodegenerative diseases and neural systems relevant to cognitive function. Send curriculum vitae to: **Marsel Mesulam, M.D., Cognitive Neurology and Alzheimer's Disease Center, Northwestern University Medical School, 320 East Superior Street, Searle 11-450, Chicago, IL 60611.** *Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States. Women and minorities are encouraged to apply.*

POSITIONS OPEN

The Searle Center for Teaching Excellence at Northwestern University seeks a full-time **RESEARCHER/ADMINISTRATOR** to work with faculty of different academic departments to design and implement evaluation of various teaching methods and perform outcome assessments. Primary responsibilities include working closely with Departments of Biology and Chemistry, which have implemented Honors Workshops modeled after programs designed by **Uri Treisman** at University of California-Berkeley and University of Texas-Austin. These collaborations should culminate in writing/publishing results in scientific and education journals. Position funded for two years with possible third year.

Competitive salary commensurate with experience, benefits, and access to Northwestern University research facilities. Beginning in summer/fall 1999. Applications accepted until position filled. For qualifications and application procedures, see [website: http://president.scfte.nwu.edu/psy.htm](http://president.scfte.nwu.edu/psy.htm).

PHYSIOLOGICAL FOREST GENETICIST FOREST PATHOLOGIST/GENETICIST

**Institute of Forest Genetics
USDA Forest Service, Davis, California**

The Institute of Forest Genetics (IFG) seeks to fill two permanent Research Geneticist positions at its laboratory at the University of California, Davis. Successful candidates are expected to develop research programs in physiological genetics and host/pathogen interactions, respectively, by interfacing with existing strengths in genomics and population/evolutionary genetics at the IFG. Positions will be GS-12/13. To apply, log onto [website: http://dendrome.ucdavis.edu/jobs/ifg.html](http://dendrome.ucdavis.edu/jobs/ifg.html) or contact: **Dr. David B. Neale, Telephone: 530-754-8431; e-mail: dneale@dendrome.ucdavis.edu.** Closing date is July 9, 1999.

The U.S. Department of Agriculture prohibits discrimination on all program activities.

NATIONAL EYE INSTITUTE

The Section on Molecular Structure and Function of the National Eye Institute has an opening for a **STAFF SCIENTIST** to work on bioinformatics analysis of genes expressed in human ocular tissues. Candidates should have a strong background in molecular biology or genetics and experience with databases, website maintenance, and bioinformatics. This is a renewable five-year position. Salary ranges from \$58,027, depending on experience, and is accompanied by full benefits. *The applicant must be a U.S. citizen or permanent resident and have a Ph.D. degree.* Applicants should send their curriculum vitae, bibliography, and three letters of recommendation to: **Dr. Graeme Wistow, Building 6, Room 331, National Institutes of Health, Bethesda, MD 20892-2740. E-mail: graeme@helix.nih.gov.**

NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION in Cell Biology Laboratory to study structural/functional relationships of the Golgi Complex. Candidates with experience in molecular, cell biology, and the techniques of mass spectroscopy and/or lipid biochemistry are encouraged to apply. In addition, candidates should have excellent communication skills. Please send curriculum vitae and names of three references to: **Dr. Kathryn Howell, Department of Cellular and Structural Biology, University of Colorado Health Sciences Center, Box B-111, 4200 East 9th Avenue, Denver, CO 80262.** *The UCHSC is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study the unique natural killer cells that develop in the uterus during pregnancy, using rodent models. Emphasis is on regulation of the uterus-specific differentiation process. Ph.D. required. Molecular biology experience desirable. Send curriculum vitae and names of references to: **Dr. Judith Head, Department of Obstetrics and Gynecology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9051. FAX: 214-648-8683; e-mail: head@grnctr.swmed.edu.** *Equal Opportunity Employer.*

**Postdoctoral Fellow Position
Genetics and Clinical Services Branch**

Postdoctoral Fellow is sought by the National Eye Institute (NEI), National Institutes of Health (NIH). The position is located in Bethesda, Maryland. Positions available for M.D. or Ph.D. with training in biochemistry, molecular genetics or clinical genetics to investigate inherited visual diseases. All applications should include the following: a statement of research interest; a career synopsis; a current curriculum vitae and bibliography; and the name and addresses of references. Salary based on education and experience beginning at \$30,000. A list of the requirements or additional information about the position may be obtained by contacting Ms. Wild at the address listed below. Applications should be sent to:

**NIH, National Eye Institute
Attention: Cheryl Wild
Building 31, Room 6A18
31 Center Drive - MSC 2510
Bethesda, Maryland 20892-2510**

Applicants with access to E-mail may transmit their materials to the following E-mail address: **CWild@nei.nih.gov** Application materials may be Faxed to (301) 496-3958 (Please limit Faxed materials to no more than 10 pages). Candidates must be either U.S. Citizens or Permanent Residents.

SELECTION FOR THIS POSITION WILL BE BASED SOLELY ON MERIT, WITH NO DISCRIMINATION FOR NON-MERIT REASONS SUCH AS RACE, COLOR, RELIGION, GENDER, NATIONAL ORIGIN, POLITICAL AFFILIATION, MARITAL STATUS, DISABILITY, AGE, SEXUAL ORIENTATION, OR MEMBERSHIP OR NON-MEMBERSHIP IN AN EMPLOYEE ORGANIZATION.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

**HEALTH SCIENTIST ADMINISTRATOR
NATIONAL INSTITUTE ON AGING
NATIONAL INSTITUTES OF HEALTH**

The Neuroscience and Neuropsychology of Aging Program is seeking a Health Scientist Administrator, GS-601-12/13/14 (\$48,796 to \$89,142) as the Program Director to develop and administer an extramural research program on neuroepidemiology, which includes studies of prevalence, incidence, and risk factors for Alzheimer's disease and other dementias of aging. The incumbent will develop the program, define its long-range goals, and contact and encourage scientists with appropriate expertise and interest to develop and submit research proposals. **Research experience in epidemiology is required. Research in aging-related neurodegenerative diseases such as Alzheimer's disease is preferred.** U.S. citizenship is required.

For application requirements by FAX, call 1-800-728-5627, ID# 1207; by e-mail, use www.careerhere.nih.gov; or contact the NIA Personnel Office (301-496-5460). Refer to announcement # NIA-99-880. Applications must be postmarked by **October 1, 1999.**

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

**HEALTH SCIENTIST ADMINISTRATOR
NATIONAL INSTITUTE ON AGING
NATIONAL INSTITUTES OF HEALTH**

The Neuroscience and Neuropsychology of Aging Program is seeking a Health Scientist Administrator, GS-601-13/14 (\$58,027 to \$89,142) as the Program Director to develop and administer an extramural research program on molecular and cellular neurobiology, neurochemistry, and molecular genetics of the dementias of aging with a specific focus on Alzheimer's disease. The incumbent will develop the program, define its long-range goals, and contact and encourage scientists with appropriate expertise and interest to develop and submit research proposals. **Research experience in cellular neurobiology is required. Research in aging-related neurodegenerative diseases such as Alzheimer's disease is preferred.** U.S. citizenship is required.

For application requirements by FAX, call 1-800-728-5627, ID# 1207; by e-mail, use www.careerhere.nih.gov; or contact the NIA Personnel Office (301-496-5460). Refer to announcement # NIA-99-881. Applications must be postmarked by **October 1, 1999.**

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

**Chief, Mood and Anxiety Disorders Branch
*National Institute of Mental Health***

The National Institute of Mental Health Intramural Research Program invites applications for a **tenured senior investigator** to be the Chief, Mood and Anxiety Disorders Branch. The candidate is expected to develop an independent research program which will plan and conduct clinical and basic research studies on the pathophysiology, etiology, and treatment of mood disorders and their comorbid conditions such as anxiety disorders; and will be provided with personnel and budget to conduct this research. The candidate must have an M.D. and/or Ph.D. in psychiatry or related discipline with broad research experience, including a record of high scientific achievement as an independent investigator; experience in direct administration of a research program; and national and international recognition. Applicants should send their curriculum vitae, statement of research interests, and have three letters of recommendation sent by **June 30, 1999** to:

**Dr. Robert Desimone
Chair, Search Committee
National Institute of Mental Health
Bldg. 10, Rm. 4N-222
9000 Rockville Pike
Bethesda, Maryland 20892**

NIH is an Equal Opportunity Employer

Bioinformatics

Professional positions are available in the expanding Bioinformatics Program associated with the National Resource for Zebrafish on the University of Oregon campus working with ZFIN, the zebrafish database, as part of the Zebrafish Genome Initiative.

DIRECTOR

Successful candidate will direct design and implementation of the ZFIN database. This will require developing a solid understanding of the needs of biologist end-users, as well as database design principles. Good communication and management skills are required as well as an M.S. or Ph.D. in Life Sciences or Computer Science.

SCIENTIFIC CURATOR

Successful candidate will be primarily responsible for data acquisition and database maintenance, including literature searching, evaluating, analyzing, and annotating data to be incorporated into the database, integrating information from disparate sources, and interacting with research laboratories to facilitate electronic data contributions. In addition, this person will participate in database and interface design by providing input into database content and display concepts. Applicants should have experience with genetics, molecular biology and be versed in genomic, cellular or developmental biology. Other desirable attributes include writing/communication skills and experience using computers. M.S. or Ph.D. in Life Sciences required.

SOFTWARE ENGINEER

Successful candidate will assist with the design and implementation of the ZFIN database. Primary responsibility includes design, implementation and maintenance of database components and WWW-based interfaces to the database. This will require experience in interface design and strong programming skills in HTML, Javascript, and scripting languages. Applicants must be highly independent and motivated to learn the scientific concepts underlying the data. Other desirable attributes include writing/communication skills, SQL, Java, C++ experience and an understanding of genetics and bioinformatics. Degree in Computer Science or related field required.

For more information, contact Pat Edwards, Institute of Neuroscience, 1254 University of Oregon, Eugene, OR 97403, USA, fax: 541-346-4548 or see http://zfinfo.uoregon.edu/zf_info/infmtx.html. The University of Oregon is an EO/AA/ADA employer committed to cultural diversity.



Molecular Geneticist Faculty Position Assistant, Associate or Full Professor Brown University Division of Biology and Medicine

The Department of Molecular Biology, Cell Biology and Biochemistry at Brown University announces the opening of a tenure track/tenured faculty position in Molecular Genetics to be appointed July 1, 2000. The appointment may be made at the level of Assistant, Associate or Full Professor depending on the qualifications of the candidate selected.

Qualifications include a Ph.D. or M.D. degree and a demonstrated track record of excellence in research. The applicant will be expected to pursue an independent, vigorous, externally-funded research program that emphasizes molecular genetic approaches to study contemporary biological problems, and to be an active member of the NIH-funded predoctoral training program in Molecular Biology, Cell Biology and Biochemistry. The applicant will be expected to participate in graduate and undergraduate teaching.

The Search Committee will give full consideration to applications received by October 1, 1999 that include a curriculum vitae, description of research interests, and at least three letters of reference (five for a senior level appointment). Application materials should be sent to: Professor John M. Sedivy, Molecular Geneticist Search Committee Chair, c/o Ms. Elaine Butler, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, RI 02912. Letters of reference should be sent under separate cover to the same address.

Brown University is an Affirmative Action/Equal Opportunity Employer. Qualified women, minorities, and protected persons are strongly encouraged to apply.

POSITIONS OPEN

MEDICAL/SCIENTIFIC RESEARCH ANALYST

Major midwest law firm is seeking applicants for the position of Research Analyst. Duties include the review and analysis of medical literature on a variety of topics in the context of pharmaceutical product liability litigation. Position also requires review and analysis of medical records and the preparation and communication to non-scientists of analyses of medical issues. Position may require some travel. This is a high-intensity position that emphasizes practical application of scientific knowledge and requires a result-oriented and self-motivated individual while offering a competitive salary and excellent benefits. The position provides a unique opportunity for scientists to apply their skills outside the area of basic research.

This position requires an outstanding academic record and a graduate degree in biological, life, or biomedical sciences. A working knowledge of pharmacology and/or epidemiology is preferred but not required. Excellent communication skills, both verbal and written, are essential. No legal education or experience required, but outstanding interpersonal skills are a must.

Please send a letter of application, complete college transcripts, a personal résumé and references to: Employment Supervisor, Shook, Hardy & Bacon L.L.P., One Kansas City Place, 1200 Main Street, Kansas City, MO 64105-2118.

POSTDOCTORAL POSITION is available immediately for research using the exciting and powerful technology of combinatorial peptide synthesis for the design and engineering of membrane proteins. Synthesis skills are not necessary. Send curriculum vitae and names of three references to: William C. Wimley, Ph.D., Biochemistry SL43, Tulane University Medical Center, New Orleans, LA 70112-2669. E-mail: wwimley@mailhost.tcs.tulane.edu. Position will be open until a qualified applicant is identified. Equal Opportunity Institution.

POSITIONS OPEN

POSTDOCTORAL POSITION available to study antigen presentation by dendritic cells in a mouse model. Three years of grant support assured. Candidate should have experience in immunology and, if possible, molecular biology. Send curriculum vitae and references to: Fred Finkelman, M.D., The University of Cincinnati College of Medicine, e-mail: ffinkelman@mem.po.com; FAX: 513-558-3799.

POSTDOCTORAL POSITION available to study immunopathogenesis of occupational asthma and related disorders and pathogenesis of pulmonary vasculitis in patients with asthma, using transgenic mouse models. Candidate should have experience in immunology, pulmonary physiology, and/or molecular biology. Future advancement to a faculty position is possible. Send curriculum vitae and references to: Fred Finkelman, M.D., The University of Cincinnati College of Medicine, e-mail: ffinkelman@mem.po.com; FAX: 513-558-3799.

University of Cincinnati is an Equal Opportunity Employer.

POSTDOCTORAL POSITION PRINCETON UNIVERSITY

Position available to carry out biophysical and X-ray crystallographic studies of protein complexes involved in protein trafficking and neurotransmitter release. Applicants should have strong Doctoral training in molecular biology, biochemistry, and/or biophysics; prior experience in X-ray crystallography is desirable but not essential. The laboratory is equipped with state-of-the-art facilities for structural biology. In addition, the Molecular Biology Department at Princeton offers a vibrant research environment located in a lively community close to both New York and Philadelphia. Send curriculum vitae and three letters of reference to: Fred Hughson, Department of Molecular Biology, Princeton University, Princeton, NJ 08544. FAX: 609-258-6730; e-mail: hughson@princeton.edu. Princeton University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Postdoctoral positions available immediately at the Beth Israel Deaconess Medical Center/Harvard Institutes of Medicine to study the molecular mechanisms of oncogenes and tumor suppressor genes in breast cancer. We also study signaling mechanisms of p53- or BRCA1-mediated senescence or apoptosis. Interested candidates who have previous experience in molecular biology, cell biology, transgenic and/or signal transduction should send their curriculum vitae and the names of three references to: Dr. Sam Lee, Harvard Institutes of Medicine, Room 921, 77 Avenue Louis Pasteur, Boston, MA 02115. FAX: 617-667-0980; e-mail: slee2@caregroup.harvard.edu.

POSTDOCTORAL/RESEARCH ASSOCIATE position available immediately to study the molecular aspects of peptide hormone action and structure-function of membrane receptors. Strong background in one or more of the following areas: molecular cloning, gene expression, site-directed mutagenesis, and/or gene transfer technology is highly desirable. Individuals having strong background in signal transduction will also be considered. Qualified candidates (Ph.D. or M.D.) should send curriculum vitae and at least two references to: Dr. K. N. Pandey, Department of Physiology SL-39, Tulane University School of Medicine, 1430 Tulane Avenue, LA 70112. FAX: 504-584-2675; e-mail: kpandey@mailhost.tcs.tulane.edu. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to study chemokine expression in the human amnion as well as other aspects of amnion function. Ph.D., M.D., or equivalent required. Send curriculum vitae and names of references to: Dr. Judith Head, Department of Obstetrics and Gynecology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9051. FAX: 214-648-8683; e-mail: head@grnctr.swmed.edu. Equal Opportunity Employer.

EXECUTIVE EDITOR

New York Academy of Sciences

The Annals of the N.Y. Academy of Sciences, published and widely cited since 1823, seeks an Executive Editor to develop publication topics and bring the multi-disciplinary and research-oriented series to new media and markets. Directing all phases of acquisition, editing, and production, the Editor will also work with senior staff in marketing on the thirty book per year schedule.

The ideal candidate will have an advanced degree in a scientific discipline, familiarity with frontiers in science and technology, and knowledge of STM publishing. Successful record in editorial or publishing required, with experience in business management and staff development preferred.

Excellent compensation package. Please send resume, giving salary requirements, to: **Director, Human Resources**



**New York Academy
of Sciences**

2 East 63rd St, NY, NY 10021
Fax: (212) 838-5810
www.nyas.org

EOE M/F/H



DEAN COLLEGE OF NATURAL RESOURCES University of California, Berkeley

The University of California, Berkeley invites applications or nominations for the position of Dean of the College of Natural Resources. The position is available on January 1, 2000.

The College of Natural Resources aspires to create a diverse community of social, biological and physical scientists who focus their attention on interactions between humans and their environment. From microsystems to ecosystems, from local communities to global economies, students, faculty and researchers are brought together under one roof to promote specialized and interdisciplinary work. Addressing problems of agricultural production, ecology, nutrition, microbial plant biology and the management of natural resources, our faculty and students undertake basic and applied research, teaching and outreach to educate the community and the world about the environment. The College is composed of eight divisions: Agricultural and Resources Economics and Policy, Ecosystem Sciences, Forest Science, Insect Biology, Microbial Biology, Nutritional Sciences and Toxicology, Plant Biology, and Resource Institutions, Policy and Management.

We are searching for an individual with an outstanding record of scholarly achievements in teaching and research, commensurate with appointment to full professor at the university, and a proven track record of successful management, consensus building, and external relations experience. This advertisement can be viewed in its entirety by visiting the Vice Provost's Office web site at: <http://cois.chance.berkeley.edu/vprovost/deansearches.html>

Applications should include a CV and the names and addresses of three references. Nominations are also being sought; these should include the name, title and address of the nominee, plus a brief paragraph describing the nominee's qualifications.

Applications or nominations should be sent no later than **Wednesday, September 15, 1999** to: **Chair, Search Committee for Dean of the College of Natural Resources, Office of the Vice Provost, 200 California Hall, University of California, Berkeley, CA 94720-1500, Phone: 510-642-6474, Fax: 510-642-3359.**

The University of California is an affirmative action, equal opportunity employer.

POSTDOCTORAL FELLOWSHIP

The Laboratory of Skin Biology at NIH, is seeking a postdoctoral fellow to work in the developmental and molecular aspects of epidermal differentiation. Transgenic and knock-out mice are being utilized to assess the function of structural epidermal genes and of transcription factors regulating skin differentiation. Applicants should have extensive experience in molecular and cellular biology. Interested candidates with a Ph.D., M.D., or equivalent degree and that have had less than 5 years of post-doctoral experience should send a current C.V., list of publications, and three references to:

Dr. Peter Steinert
Dr. Maria Morasso
NIH, NIAMS, Lab of Skin Biology
Building 6 Room 134
6 Center Drive MSC 2790
Bethesda, MD 20892
Telephone: (301) 402-2888
FAX: (301) 402-2886
e-mail: pemast@helix.nih.gov
morasso@nih.gov



NIH is an Equal Opportunity Employer

At Rhone-Poulenc Rorer, a global pharmaceutical leader, we sow the seeds of success. Our commitment to research and development has created new opportunities in our Collegeville, PA research center. If you share our entrepreneurial spirit, sense of urgency, teamwork philosophy, and commitment to improving the quality of life for millions of customers, we invite you to explore the following opportunities:

RESEARCH SCIENTIST - BIOANALYTICAL CHEMISTRY: JOB CODE 2144

We are seeking a Scientist to work in the area of bioanalytical chemistry within the Department of Drug Metabolism and Pharmacokinetics. The qualified candidate will develop and validate bioanalytical methods using HPLC and LC/MS systems and write method validation reports. The candidate will also conduct bioanalytical studies using validated methods, organize laboratory, study, and project activities, write technical reports, and provide technical help to junior scientists.

Requires: • Ph.D. in Chemistry and 1-2 years of postdoctoral training; • experience with HPLC, LC/MS, and bioanalytical sample processing techniques; • knowledge of chromatography data acquisition system; • computer proficient; excellent communication skills; • ability to work in a team environment.

RESEARCH SCIENTIST - PHARMACEUTICAL QUALITY ANALYSIS: JOB CODE 2203

Your role will be to plan and perform analytical bench work and analysis of results, including method development; method validation; method transfer, and routine testing (i.e. IND/NDA, stability programs, formulation development). You also will direct trouble shooting and problem solving activities; train and transfer acquired technical skills in compliance with cGMP and department SOP's; prepare and submit accurate test methods, analytical protocols, stability reports, and other technical documents; work as a project team member; as well as contribute to new drug development opportunities.

Requires: • Ph.D. with 3+ years' experience, M.S. with 5+ years' experience, or B.S. with 7+ years' experience in Chemistry, Physical-Analytical Chemistry or related life science; • advanced knowledge in chromatography, compendia testing and other common analytical methodologies and validation for drug products and drug substance testing; • knowledge of pharmaceutical R&D environment and regulations, • statistical knowledge, LIMS, dissolution techniques, and aerosol testing; • organizational, • problem solving, and planning capabilities; • demonstrated ability to communicate ideas or messages in a clear, concise and effective manner both written and oral.

In addition to an exciting and dynamic environment, we offer a competitive salary, an ideal location, and opportunity for advancement. If you are an interested, qualified candidate, please forward your resume, indicating job code, to: **Rhone-Poulenc Rorer, Human Resources, 500 Arcola Road, P.O. Box 5096, S. Wilcots EXP19, Collegeville, PA 19426-0996. Fax: (610) 454-5884. Or e-mail: susan.wilcots@rp-rorer.com** Visit our web site: www.rp-rorer.com

Equal Opportunity Employer M/F/D/V.



RHÔNE-POULENC RORER

POSITIONS OPEN

A **POSTDOCTORAL POSITION** in molecular neurobiology is available at the University of Alabama at Birmingham (UAB), a dynamic, highly interactive biomedical research center ranking in the top 15 institutions in NIH-supported research. The position is for study of astrocyte-specific transcription, with findings being applied to production of transgenic mice to investigate central nervous system development and function and for gene therapy. Experience in cell culture, histochemistry, or molecular biology is desirable. For additional information inquire by e-mail or go to our website: <http://www.neurobiology.uab.edu> and select Faculty and Michael Brenner. To apply send curriculum vitae and the names of three references to: **Dr. Michael Brenner, Department of Neurobiology, 1719 6th Avenue South CIRC 590, University of Alabama at Birmingham, Birmingham, AL 35294-0021. FAX: 205-934-6571; e-mail: aaron@nrc.uab.edu.** UAB is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in systems neuroscience is available immediately to study the neuronal mechanisms underlying motor learning in an *in vitro* brainstem-cerebellum preparation from the turtle. The project will include electrophysiological techniques, immunocytochemistry, and intracellular dye filling in fixed slices. Applicants with a strong interest in motor control and mechanisms of learning are encouraged to apply. Vermillion is located in a rural environment where crime rates and cost of living are low. Interested candidates should send a curriculum vitae and names of three references to: **Joyce Keifer, Ph.D., Neuroscience Group, Division of Basic Biomedical Sciences, University of South Dakota School of Medicine, 414 East Clark Street, Vermillion, SD 57069-2390.** The University of South Dakota is an Affirmative Action/Equal Opportunity Employer.

A **POSTDOCTORAL POSITION** is available in Myocardial Biology Unit at Boston University involving integrative work in molecular biology and physiology to study the role of extracellular matrix proteins in pathogenesis of heart failure. The work will focus on osteopontin, which is increased in the heart with the development of heart failure. Highly motivated individuals with experience in biochemistry, molecular biology, physiology, or cell biology will be considered. Send curriculum vitae to:

**Dr. Krishna Singh, R-406
Boston University School of Medicine
80 East Concord Street
Boston, MA 02118
E-mail: krishna.singh@bmc.org**

POSTDOCTORAL POSITIONS in enzymology and mitochondrial biology. Newly funded NIH grants will investigate the role of decreased α -ketoglutarate dehydrogenase activity in Alzheimer's disease; the other project has a primary emphasis on ion-induced mitochondrial dysfunction relevant to stroke. Initial studies will concentrate on purified enzymes and isolated mitochondria. Experience in enzymology, quantitative biochemistry, or mitochondrial assays desirable. Project descriptions available. Contact: **A. M. Brown or B. S. Kristal, Department of Biochemistry, Cornell University Medical College, 785 Mamaroneck Avenue, White Plains, NY 10605. FAX: 914-597-2757; e-mail: bkristal@burke.org or ambrown@mail.med.cornell.edu.**

POSTDOCTORAL POSITIONS are available immediately in **Dr. Honghua Li's** laboratory to study (1) the haplotype organization of the human gene regions involved in immune system development and its possible association with autoimmune diseases, and (2) the genetic basis of breast cancer. Experience in molecular biology is essential. Background in human genetics is preferred. Send curriculum vitae and three letters of recommendation to: **C. Tule, Coriell Institute for Medical Research, 401 Haddon Avenue, Camden, NJ 08103.** Affirmative Action/Equal Opportunity Employer/Minorities/Females.

POSITIONS OPEN

POSTDOCTORAL FELLOW HUMAN GENE THERAPY RESEARCH INSTITUTE

The Human Gene Therapy Research Institute (HGTRI) has available a Postdoctoral Fellow position for research in gene transfer systems and their application to the treatment and prevention of cancer.

Laboratory focus is on translational research with a long-term goal of improving gene transfer into humans. Backgrounds in virology, cancer biology, molecular biology, immunology, and microbiology will be considered. Position is available immediately.

HGTRI is a not-for-profit, academic research group primarily funded by the Central Iowa Health System of Des Moines. Laboratories provide state-of-the-art equipment, animal facility, and administrative and technical support. You can learn more about HGTRI by visiting the homepage at website: www.hgtri.org. Applicants should submit a curriculum vitae, an outline of current and future research interests, and three references to: **Charles J. Link, Jr., M.D., Director, Human Gene Therapy Research Institute, Iowa Health System, 1313 High Street, Suite 111, Des Moines, IA 50309. E-mail: barvinna@ihs.org.** Equal Opportunity Employer/Affirmative Action/Minorities/Females/Disabled/Veterans.

Southern Illinois University School of Medicine is seeking a **POSTDOCTORAL/RESEARCH INSTRUCTOR** to work under the direction of **Mark Francis, M.D., Chief, Division of Rheumatology.** This position will perform research investigations as well as assisting Technicians, Doctoral candidates, house officers, and collaborators. Minimum qualifications include a Ph.D. in one of the biological sciences. Experience with molecular biology highly desirable but not absolutely necessary. A good opportunity to develop independence in the laboratory. Send résumé and three names and addresses of references to: **Ms. Jan Baxter, Medical Services Administrator, Southern Illinois University School of Medicine, P.O. Box 19636, Springfield, IL 62794-9636.** Closing date June 30, 1999.

SIU-SM is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION in diabetes and obesity research. Research involves NIH-sponsored study investigating mechanisms of insulin resistance in humans with gestational diabetes. Work involves study of signaling defect(s) in the insulin receptor, IRS-1, and insulin action in cells and in the intact human. Demonstrated skill in metabolism, endocrine physiology, and/or molecular biology is required. Send or e-mail curriculum vitae, along with names of three references, to: **Dr. Jacob E. Friedman, Department of Nutrition, Case Western Reserve University School of Medicine, 10900 Euclid Avenue, Cleveland, OH 44106. Telephone: 216-368-1616.** Competitive salary.

POSTDOCTORAL POSITION available in laboratory with four active NIH grants on the neurophysiology and neuropharmacology of pain. Ph.D. degree and previous experience with electrophysiology (especially afferent recording) or immunocytochemistry using confocal instruments desirable. Send curriculum vitae and names of two references to: **Dr. J. C. Eisenach, Department of Anesthesiology, Wake Forest University School of Medicine, Winston-Salem, NC 27157. E-mail: eisenach@wfubmc.edu; FAX: 336-716-8190.** Affirmative Action/Equal Employment Opportunity Employer.

The Division of Plastic and Reconstructive Surgery, University of California, Los Angeles, is seeking a full-time **POSTDOCTORAL RESEARCH FELLOW** to work in the Regenerative Bioengineering and Repair Laboratory. Focus will be on tissue engineering scarless wound healing. Strong interest in molecular mechanisms of development and repair necessary. Send curriculum vitae to: **Marc H. Hedrick, M.D., and H. Peter Lorenz, M.D., 64-139 CHS, Box 951665, Los Angeles, CA 90095-1665.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

Postdoctoral positions are available immediately on NIH-funded projects. Three positions are open in the areas of (1) corneal transplantation, (2) apoptosis and immune tolerance, and (3) angiogenesis. Candidates must have a Ph.D., M.D., or equivalent and a strong background in one or more of the following areas: molecular biology, animal surgery, protein chemistry, immunology, apoptosis, or receptor biology/biochemistry. Applicants should be fluent in English and eligible for U.S. employment. Send curriculum vitae and names of three references to: **Thomas A. Ferguson, Ph.D., Washington University School of Medicine, 660 South Euclid, Box 8096, St. Louis, MO 63110. E-mail: ferguson@am.seer.wustl.edu.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to investigate molecular, biochemical, and physiological aspects of smooth muscle contraction. Approaches to be used include antisense inhibition of thin filament-based proteins, isolated contractile proteins, detergent and alpha-toxin permeabilized fibers, and intact tissues to examine Ca^{2+} -dependent regulation of contraction and G-protein-dependent signal transduction pathways with an emphasis on kinase-phosphatase regulation. These studies will be performed on vascular, gastrointestinal, and urinary bladder smooth muscle. Experience in muscle research is desirable. Please send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Robert S. Moreland, Department of Physiology, MCP Hahnemann University, 2900 Queen Lane, Philadelphia, PA 19129. E-mail: moreland@mcph.edu.**

POSTDOCTORAL RESEARCH ASSOCIATE

Seeking a qualified Postdoctorate to study integral membrane targeting through membrane-mediated pathways to intranuclear membranes during viral infection. Candidate should have training and expertise in protein structure, function, and/or identification of interacting proteins. Position could start immediately or within the next six to nine months. Salary negotiable commensurate with experience, starting at \$30,000 annually. Please send résumé and names of three references to: **Dr. Max D. Summers, Center for Advanced Invertebrate Molecular Sciences, Minnie Belle Heep Building, Room 324, Texas A&M University, College Station, TX 77843-2475.** Texas A&M University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS are available to study regulation of ion channels and to isolate novel ion channels and transporters by expression cloning. Recent publications from the laboratory include *Nature* 391:803-806, 1998; *PNAS* 96:5820-5825, 1999. Candidates must have Ph.D. and/or M.D., should be highly motivated. Background in molecular biology and/or electrophysiology is required. Send curriculum vitae and names of references to: **Dr. Chou-Long Huang, M.D., Ph.D., Department of Medicine, The University of Texas Southwestern Medical Center, Dallas, TX 75235-8856. E-mail: chuan1@mednet.swmed.edu; FAX: 214-648-2071; Telephone: 214-648-8627.** UT Southwestern is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to study signal transduction in hematopoietic/erythroid cells. Experience in molecular and cell biology including site-directed mutagenesis and construction/screening recombinant cDNA libraries preferred. Send curriculum vitae and names of references to: **A. Wickrema, Ph.D., Hematology/Oncology Section, The University of Illinois at Chicago, 900 South Ashland Avenue, H/C 734, Chicago, IL 60607. E-mail: awickrem@uic.edu.** The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS AVAILABLE

Two (2) Postdoctoral positions for qualified individuals are available immediately to study molecular mechanisms of brain injury and invasion as applicable to the central nervous system regeneration, trauma, and brain tumors areas. Candidates must possess previous experience in cell and molecular biology, a strong motivation, and interest in biological research. Candidates should possess a Ph.D. in molecular biology. Salary is highly competitive in state-of-the-art facilities and positions are intended to be for at least two years, with possibility of an extension depending on productivity record. If interested, please contact and/or send résumé to: **Dario Marchetti, Ph.D., The University of Texas-Houston, Health Science Center, Medical School, Department of Neurosurgery, MSB 7.136, Houston, TX 77030. Telephone: 713-500-6137; FAX: 713-500-7787; e-mail: dmarchet@heart.med.uth.tmc.edu.**

MOLECULAR TUMOR BIOLOGY AND DEVELOPMENTAL THERAPEUTICS

A POSTDOCTORAL POSITION is available to study genes and proteins involved in cancer cell signal transduction pathways and/or to develop preclinical/clinical liposomal formulations of anticancer drugs. Recent Ph.D. with experience in molecular biology/biochemistry and/or toxicology/pharmacology is desirable. Please send curriculum vitae and three references to: **Usha Kasid, Ph.D., Associate Professor, Room E208, The Research Building, Georgetown University Medical Center, 3970 Reservoir Road N.W., Washington, DC 20007. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study the regulation of neuropeptide gene expression in striatal neurons by glutamate/dopamine receptors. Studies employ striatal cultures, *in situ* hybridization, immunocytochemistry, and Ca^{2+} image to elucidate molecular mechanisms for drugs of abuse. The program is supported by the NIH. Send curriculum vitae and names/addresses of three references to: **Dr. John Wang, Division of Pharmacology, School of Pharmacy, University of Missouri-Kansas City, 2411 Holmes Street, Kansas City, MO 64108. FAX: 816-235-1776; e-mail: wangjq@umkc.edu.**

POSTDOCTORAL FELLOWSHIP in cardiac electrophysiology to study mouse models of inherited arrhythmia. These studies involve gene targeting of embryonic stem (ES) cells, *in vitro* differentiation of ES cells, and patch clamp. Previous electrophysiological or molecular biological experiences are preferred. Applicants should send a curriculum vitae and reference list to: **Sam Dudley, M.D., Ph.D., Departments of Medicine and Physiology, Emory University, 1670 Clairmont Road (111B), Decatur, GA 30033. FAX: 404-329-2211; e-mail: sdudley@emory.edu.**

POSTDOCTORAL POSITION. Immediate position available for a Molecular Immunologist Postdoctoral Fellow or Research Instructor, depending on credentials, to study regulation of apoptosis in T lymphocytes. Must have a Ph.D. with solid foundation in molecular biology. Send curriculum vitae, a summary of previous research, and three letters of recommendation to: **Hannah Rabinowich, Ph.D., Department of Pathology, W952 BST, University of Pittsburgh Cancer Institute, Pittsburgh, PA 15213.**

Two **POSTDOCTORAL POSITIONS** to study angiogenesis. Recent Ph.D. required with experience in molecular biology, cell culture, and animal work. High motivation, fluency in English, and research experience in cancer models are very desirable. Please send a letter of intent, a curriculum vitae, and names of three references (or letters of recommendation) to: **Dr. Mai Nguyen, UCLA Medical Center, Box 951782, Los Angeles, CA 90095. FAX: 310-825-7575.**

POSITIONS OPEN



DUKE UNIVERSITY MEDICAL CENTER CENTER FOR HUMAN GENETICS

The Duke University Center for Human Genetics is seeking outstanding **POSTDOCTORAL SCIENTISTS** to work on the molecular biology of human disorders. Candidates will be expected to carry forward and develop research programs in human disease. Positions are presently available for research in Charcot-Marie-Tooth (CMT), autism, Alzheimer's disease, cardiovascular disease, asthma, Parkinson's disease, and other human disorders. Interested Ph.D.'s or M.D.'s with experience in genetics, molecular genetics, molecular or cell biology who wish to become part of a dynamic, growing center should send a cover letter, curriculum vitae, and names of three references to: **Jeffrey M. Vance, Ph.D., M.D., Associate Professor of Medicine and Genetics, Duke University Medical Center, Box 3445, Durham, NC 27710.**

Salaries are commensurate with experience.
Duke is an Equal Opportunity Employer.

POSTDOCTORAL POSITION DROSOPHILA DEVELOPMENT University of California, Berkeley

Seeking person interested in using *Drosophila* sex determination to explore (1) developmental programming in the germ line and/or brain; (2) structure-function relationships for RNA binding proteins; or (3) evolution of developmental gene hierarchies. Should be knowledgeable in standard molecular techniques and eager to learn and apply sophisticated genetics. Funding available for three and a half years. Salary \$30,000 per year minimum. Send (preferably by e-mail) curriculum vitae, summary of research experience, statement of research interests relevant to the position, and contact information for three references to: **Thomas Cline, 401 Barker Hall, University of California, Berkeley, CA 94720. E-mail: sxcline@uclink.berkeley.edu. The University of California is an Equal Opportunity/Affirmative Action Employer.**

Two **POSTDOCTORAL POSITIONS** in diabetes and obesity research. Case Western Reserve University. Opportunity to investigate high-profile collection of genes of energy balance and diabetes by ENU mutagenesis. Studies involve regulation of metabolism and gene expression in animal models, including interaction of transcription factors, generation of transgenic mice, and gene mapping. Individuals should have demonstrated skill in metabolism, endocrine physiology, and/or molecular biology. Send curriculum vitae and names of three references to: **Dr. Jacob E. Friedman, Department of Nutrition, Case Western Reserve University School of Medicine, 10900 Euclid Avenue, Cleveland, OH 44106. Telephone: 216-368-1616. Competitive salary.**

POSTDOCTORAL POSITION available to study somatic hypermutation in immunoglobulin variable genes. Research will focus on identifying the genes involved in the mutation mechanism, using knockout mice and DNA microarray systems. Please send curriculum vitae and names of three references to: **Dr. Patricia Gearhart, Laboratory of Molecular Genetics, National Institute on Aging, National Institutes of Health, 5600 Nathan Shock Drive Box 1, Baltimore, MD 21224. E-mail: gearharp@grc.nia.nih.gov. NIH is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION immediately available to study structure-function relationships of the extracellular calcium-sensing receptor, a G protein-coupled receptor, using molecular biological, cell biological, and biochemical techniques. Send résumé to: **Dr. Mei Bai, Endocrine-Hypertension, Brigham and Women's Hospital, Harvard Medical School, 221 Longwood Avenue, Boston, MA 02115. E-mail: mbai@bustoff.bwh.harvard.edu.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS currently available in three of the eight-member laboratories of the Christopher Reeve Paralysis Foundation's (formerly American Paralysis Association) Research Consortium on Spinal Cord Injury. Unique opportunities include interactions with the eight senior scientists, collaborative experiments between laboratories, twice-yearly meetings of Principal Investigators and Fellows. Positions available to study (1) mechanisms of cell death after injury, including excitotoxicity and apoptosis, **Choi** laboratory, Washington University, St. Louis; (2) combinations of cells and factors to achieve effective regeneration in spinal cord injury models, **Bunge** laboratory, Miami Project, Miami; and (3) electrophysiology of the intact and damaged spinal cord; emphasis on neurotrophin expression, **Mendell** laboratory, SUNY Stony Brook. Send curriculum vitae, statement of research interest, names of three references to the appropriate laboratory, addresses in SfN Directory, or contact: **Susan Howley, Christopher Reeve Paralysis Foundation, Telephone: 973-379-2690. All of the above-named institutions are Equal Employment Opportunity/Affirmative Action Employers and Educators.**

POSTDOCTORAL ASSOCIATE. Institute of Ecosystem Studies. Spatial and temporal heterogeneity in insect population dynamics. Available immediately to conduct research on gypsy moth dynamics using metapopulation, spatial and temporal autocorrelation, and life table analyses of long-term, multi-scale data sets. Ph.D. and appropriate analytical and modeling experience required. Initial one-year appointment renewable for second year subject to performance. Send letter of application, curriculum vitae, and names of three references to: **Dr. Clive G. Jones, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545-0129. Telephone: 914-677-7542; FAX: 914-677-5976; e-mail: jonesc@ecosystudies.org. Project-related information, website: <http://www.ecostudies.org/research/reports/jonesrep2.html>. IES information: website: <http://www.ecostudies.org>. Equal Opportunity Employer/Affirmative Action.**

POSTDOCTORAL POSITION AT STANFORD UNIVERSITY

W. W. Hansen Experimental Physics Laboratory and the Department of Ophthalmology in the School of Medicine at Stanford University seek a talented and energetic Postdoctoral Fellow to join a team working on medical applications of pulsed lasers and electric discharges. Position is open immediately. Please send a curriculum vitae and list of publications to: **Dr. D. Palanker, Hansen Experimental Physics Laboratory, Stanford University, Stanford, CA 94305-4085. E-mail: palanker@leland.stanford.edu. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION. NIH-funded for two to three years to work on the mechanism of directional cell migration in response to applied DC electric fields. Integrin and receptor-based signaling, actin polymerization, localized calcium entry are among the areas of investigation. A strong background in signal transduction and cell motility and proficiency in basic cell biological techniques, image analysis, and fluorescence microscopy are a plus. Contact: **Dr. Rivkah Isseroff and Dr. Rich Nuccitelli, University of California, Davis TB 192, One Shields Avenue, Davis, CA 95616. FAX: 530-752-9766; e-mail: rrisseroff@ucdavis.edu.**

POSTDOCTORAL POSITIONS available at Fox Chase Cancer Center, one of only four independent Comprehensive Cancer Centers designated by the National Cancer Institute to study two distinct areas: (1) membrane-based mechanisms of cellular resistance to cytotoxic drugs, and (2) signal transduction during development. Previous experience in signal transduction or molecular biology preferred. Please send curriculum vitae to: **Gary D. Kruh, M.D., Ph.D., c/o Human Resources, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**



THE UNIVERSITY of LIVERPOOL

Faculty of Medicine

North West Cancer Research Fund (NWCRCF)

Chair of Cellular or Molecular Oncology

The University invites applications for the NWCRCF Chair of Molecular or Cellular Oncology, which is a new non-clinical research post carrying minimal teaching duties. It has been created as part of a long-term strategy to strengthen and extend the scope of laboratory-based cancer research within the Faculty of Medicine at the University of Liverpool. The appointee will be expected to have, or show strong evidence of being able to develop, an international reputation in a relevant field and build a research group of high standing by securing external funding in addition to support from NWCRCF.

The department and laboratory space in which the postholder will conduct their research will be decided in consultation with the Faculty of Medicine and determined largely by the perceived level of interaction between the appointee's research group and the host department.

The salary will be negotiable.

Informal enquiries may be addressed to Professor John Sloane, Chairman, NWCRCF Scientific Committee, on 0151 706 4511 or the Dean of the Faculty of Medicine, Professor Peter Johnson on 0151 706 4260.

Quote Ref: A/530/S

Closing Date: 4 July 1999

Further particulars and details of the application procedure may be requested from the Director of Personnel, The University of Liverpool, Liverpool L69 3BX on 0151 794 2210 (24 hr answerphone) or via email: jobs@liv.ac.uk Web site at <http://www.liv.ac.uk>

COMMITTED TO EQUAL OPPORTUNITIES



Universität Heidelberg

The CENTER FOR MOLECULAR BIOLOGY of the University of Heidelberg (ZMBH) invites applications for a

FULL PROFESSORSHIP IN MOLECULAR BIOLOGY (C4).

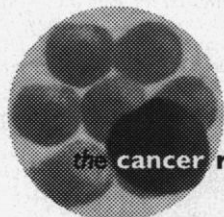
The successful candidate will contribute to the research activities at the ZMBH which focus on – molecular cellbiology (neurobiology) – molecular cell differentiation and development – molecular biology of infectious diseases –.

Collaboration with the research groups of the ZMBH as well as participation in the research programmes sponsored by the Deutsche Forschungsgemeinschaft (SFB) will be expected. The position also requires participation in the teaching program of the faculty for biology, in particular microbiology in undergraduate and graduate programmes.

The ZMBH presently houses 15 independent research groups and offers an excellent research environment including central facilities for biomolecular chemistry, biocomputing, animal house with transgenic services, as well as centralized administration and technical services.

Research and teaching programmes are summarized at the ZMBH's web-site (<http://www.zmbh.uni-heidelberg.de>).

Applications should be received by the Director of the ZMBH, Prof. Dr. Dr. h.c. Konrad Beyreuther, Im Neuenheimer Feld 282, D-69120 Heidelberg, Germany, not later than **July 30, 1999**.



the cancer research campaign

Senior Research Fellowships

The Beatson Institute for Cancer Research Glasgow

Applications for these independent positions are invited from molecular/cell biologists with proven track records in independent research relevant to the broad aims of the Institute. The positions are for five years initially with a salary at MRC band 3 level (range £18,000 - £36,400), according to experience. Each fellowship will also fund one support position (junior postdoctoral or equivalent) with associated running costs. In addition, research fellows will be entitled to compete for further Institute or outside funding.

The Beatson Institute is Scotland's principal Institute for experimental cancer research and a major component of the comprehensive and well-resourced experimental and clinical research activities of the Cancer Research Campaign Beatson Laboratories complex situated in the green-field Garscube campus of the University of Glasgow. The major interest of current research concerns the fundamental mechanisms of cell regulation and how these become aberrant in cancer (details can be found at our web site (<http://www.beatson.gla.ac.uk/beatson>)).

Applications with CV, outline of research proposals and the names of three referees should be sent to Professor P.R. Harrison, Assistant Director (Research), the Beatson Institute for Cancer Research, Garscube Estate, Switchback Road, Bearsden, Glasgow G61 1BD, Scotland (email: p.r.harrison@beatson.gla.ac.uk)

Max-Planck Institute for Biochemistry Martinsried/Munich, Germany

The Max Planck Institute for Biochemistry ranks as one of the world's preeminent basic research centers for cellular, biochemical and biomedical research. The Institute is comprised of ten departments, seven independent junior research groups, several service groups and provides a superb research environment. Current research activities include structural biology, membrane and protein biochemistry, cellular regulation and organization and signal transduction.

The Institute seeks candidates for several positions in cell biology and biomedicine:

Head of Department

The successful candidates will be appointed as autonomous heads of department at the full professor level (C4) and must have an outstanding record of accomplishments in a research area that complements well the current research activities of the Institute. Appropriate laboratory space and funds for laboratory set-up, operation and personnel will be provided.

Leader of Junior Research Group

The successful candidates will have several years of postdoctoral experience in the field of cell biology or molecular oncology and a strong record of accomplishments. Candidates should not be older than 35 years of age and will be appointed at the associate professor level (C2/C3) for a five year period. Adequate laboratory space and funds for laboratory set-up and operation will be provided, along with salary support for one scientist, two technicians and fellowships for postdoctoral fellow or graduate students.

The Max-Planck-Society is an equal opportunity employer and especially encourages applications from women. Applicants should submit their curriculum vitae, bibliography, the names of three references (with email addresses) and a brief description of their future research plans to

Max Planck Institute for Biochemistry

Managing Director

Am Klopferspitz 18a

D-82152 Martinsried / Munich, Germany

Website: <http://www.biochem.mpg.de/>

Deadline for application is July 31, 1999.

POSITIONS OPEN

POSTDOCTORAL FELLOW MASSACHUSETTS INSTITUTE OF TECHNOLOGY

A Postdoctoral position is available to study the molecular, biochemical, and cellular aspects of heparin-like glycosaminoglycans and their role in growth factor signaling and angiogenesis. A greater understanding of these complex molecules will lead to the development of novel therapeutics. Highly motivated individuals who have recently received a Ph.D. in the field of cell biology, molecular biology, or biochemistry are invited to apply. Please send a cover letter, curriculum vitae, and the names and addresses of three references to:

Professor Ram Sasisekharan
Massachusetts Institute of Technology
Division of Bioengineering and
Environmental Health
16-561, 77 Massachusetts Avenue
Cambridge, MA 02139
E-mail: ramnat@mit.edu
Website: <http://web.mit.edu/tox/sasisekharan>

TWO POSTDOCTORAL POSITIONS AT HARVARD MEDICAL SCHOOL

Project for Position (1): To identify the genetic modifiers of a common inherited kidney disease using mouse genetics.

Project for Position (2): To study the structure, function, and signaling of type IV collagen.

Positions are available immediately. Experience in cellular and/or molecular biology is required. Background in genetics and particularly experience of working with mice are desirable. Please send curriculum vitae and three references to: Dr. J. Zhou, Harvard Institutes of Medicine, Room 520, 4 Blackfan Circle, Boston, MA 02115. Telephone: 617-525-5860; FAX: 617-525-5830; e-mail: zhou@rics.bwh.harvard.edu. Women and minorities are encouraged to apply. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITION is available to study the molecular and clinical pharmacogenetics of sulfotransferases and glucuronosyltransferases. Experience in biochemical analysis of enzymes, the establishment of stably transfected cell lines, and/or general molecular techniques would be appreciated; however, general scientific aptitude is equally important. Fox Chase Cancer Center has an excellent benefits package including four weeks of paid vacation. Please send a complete curriculum vitae and the names of three references to: Rebecca B. Raftogianis, Ph.D., Department of Microbiology, c/o Human Resources, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Or e-mail those documents in Microsoft Word format to e-mail: rb_raftogianis@fccc.edu. Equal Opportunity Employer.

POSTDOCTORAL POSITION

NIH-sponsored Postdoctoral position for candidate with expertise in molecular biology in the Khavari laboratory (website: <http://cmgm.stanford.edu/khavari>). Projects include gene therapy and epithelial biology. Send curriculum vitae and names of three references to: Paul A. Khavari, M.D., Ph.D., c/o Nancy Griffiths, Stanford University School of Medicine, MSLS Building P206, Stanford, CA 94305. FAX: 650-723-8762. Stanford University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL/ASSOCIATE RESEARCH SCIENTIST position available to study the regulation of gastrointestinal mucosal cell proliferation during aging and the chemopreventive role of folic acid in colon cancer. M.S. or Ph.D. with experience in cell and molecular biology. Send curriculum vitae and three references to: Darlene Daniels (151), VA Medical Center, Wayne State University, 4646 John Road, Detroit, MI 48201. FAX: 313-576-1112.

POSITIONS OPEN

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 POSITIONS UNIVERSITY OF CALIFORNIA, SAN DIEGO

Two Postdoctoral positions are available in an NIH-supported project to study ion channels and calcium regulation in human vascular smooth muscle cells. Experience in imaging fluorescence microscopy or molecular biology (cloning, transfection, Northern and Western blot, and RT-PCR) is required. Salary commensurate with experience. Send curriculum vitae and three references to: Jason Yuan, M.D., Ph.D., Associate Professor, Department of Medicine, University of California, San Diego Medical Center, 200 West Arbor Drive, San Diego, CA 92103-8382. E-mail: xiyuan@ucsd.edu; FAX: 619-543-2929.

POSTDOCTORAL FELLOW

The Laboratory of Neuropsychology at the National Institute of Mental Health is seeking a Postdoctoral Fellow to conduct research on the neural mechanisms of auditory learning and memory in monkeys. Candidates should have experience in either functional neuroanatomy, behavioral electrophysiology, or psychoneuropharmacology. Applicants need not be U.S. citizens but must have Ph.D. or M.D. degrees and have less than five years of postdoctoral experience. Applicants should send their curriculum vitae and names of three references to: Mortimer Mishkin, Building 49, Room 1B80, 49 Convent Drive, NIH, Bethesda, MD 20892-4415. E-mail: mm@n.nimh.nih.gov. NIH is an Equal Opportunity Employer.

Two POSTDOCTORAL POSITIONS available immediately at the University of Georgia to study (1) steroid hormone signaling during *Drosophila* development or (2) intracellular action of ribozymes against cellular RNA targets. Training in biochemistry, genetics, and/or molecular biology preferred. Send curriculum vitae and names of three references to: (1) Michael Bender, Department of Genetics or (2) Michael Terns, Department of Biochemistry and Molecular Biology, Life Sciences Building, University of Georgia, Athens, GA 30602. FAX: 706-542-3910; e-mail: bender@arches.uga.edu or mterns@bchiris.bmb.uga.edu.

POSTDOCTORAL RESEARCH POSITION in cellular and molecular neuroendocrinology available immediately for studying the cellular and molecular mechanisms of actions of alcohol and estrogen on neuroendocrine cell growth and differentiation. Experience with cell cultures and molecular biology techniques is required. Send curriculum vitae and three letters of reference to: Dipak K. Sarkar, Chairman, Department of Animal Sciences, Rutgers University, New Brunswick, NJ 08854. FAX: 732-932-6996; e-mail: sarkar@aesop.rutgers.edu.

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE

The Division of Cognitive Neuroscience at The University of Iowa, Department of Neurology, College of Medicine is seeking candidates to fill a Postdoctoral Associate position with an immediate starting date. Candidates must have a Ph.D. in psychology, neuroscience, or a related field. Expertise in cognitive psychology, "lesion method" neuropsychology, and functional neuroimaging is desirable. Successful candidate will join a cognitive neuroscience research team comprising Antonio Damasio, Hanna Damasio, Daniel Tranel, Gary Van Hoesen, Kathy Rockland, Ralph Adolphs, Antoine Bechara, and Thomas Grabowski.

Please send a curriculum vitae and cover letter to: Antonio Damasio, Department of Neurology, 2153 RCP, University of Iowa Hospitals and Clinics, 200 Hawkins Drive, Iowa City, IA 52242.

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

POSTDOCTORAL FELLOWSHIP available to investigate molecular pathways (e.g., DNA repair and signal transduction) responsible for the cellular response to genotoxic agents in a translational research setting. Candidate should have strong background in DNA damage/repair, signal transduction, and molecular biology techniques especially *in vitro* DNA repair assays. Position limited to M.D.'s and Ph.D.'s with less than five years of postdoctoral experience. Forward curriculum vitae and three letters of recommendation to:

Michele K. Evans, M.D.
Gerontology Research Center
National Institute on Aging
5600 Nathan Shock Drive, Box 9
Baltimore, MD 21224-6825
E-mail: me42v@nih.gov

NIH is an Equal Opportunity Employer.

A **POSTDOCTORAL POSITION** is available for a highly motivated individual to study *Sarcocystis neurona* and *Neospora caninum* in the equine and bovine hosts. Minimum qualifications are a Ph.D. and expertise in cell or molecular biology. Interested candidates should send a curriculum vitae, a letter of interest stating career goals, and names of at least three references to: W. J. A. Saville, D.V.M., Ph.D., Department of Veterinary Preventive Medicine, The Ohio State University College of Veterinary Medicine, 1900 Coffey Road, Columbus, OH 43210-1092. E-mail: saville.4@osu.edu; FAX: 614-292-4142. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, Vietnam-era veterans, disabled veterans, and individuals with disability are encouraged to apply.

HARVARD MEDICAL SCHOOL

A Postdoctoral position is available in the Center for Neurologic Diseases (CND) at Harvard Medical School and Brigham and Women's Hospital to study the relationship between sex hormones and Alzheimer's disease. Highly motivated individuals with a recent Ph.D. and experience in tissue culture, steroid hormone biology, and mouse models of hormone function are encouraged to apply. Send curriculum vitae, two recent reprints, and the names of three references to: Dr. Matthew Frosch, Brigham and Women's Hospital, Center for Neurologic Diseases, HIM 758, 77 Avenue Louis Pasteur, Boston, MA 02115.

POSTDOCTORAL POSITION available immediately to study the enzymatic mechanisms of DNA and RNA helicases. Experience in enzymology, protein biochemistry, or bioorganic chemistry is desirable. Send curriculum vitae and names of references to: Dr. Kevin Raney, Department of Biochemistry, Slot 516, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, AR 72205. E-mail: raneykevind@exchange.uams.edu.

POSITIONS OPEN

POSTDOCTORAL POSITION available to study transcriptional potential of the vitamin D receptor. Requires Ph.D. in biochemistry, molecular biology, or related discipline. Send curriculum vitae and names of three references to: **Dr. Nick Koszewski**, University of Kentucky Medical Center, Department of Internal Medicine, Room MN562, 800 Rose Street, Lexington, KY 40536-0084.

EUROPEAN OPPORTUNITIES

FACULTY OF BIOLOGY UNIVERSITY OF TüBINGEN, GERMANY

The Faculty of Biology invites applications for an **ASSOCIATE PROFESSOR (C3)** in plant molecular biology starting April 1, 2000.

Candidates are expected to participate in teaching in plant physiology/plant molecular biology. The candidate will be a group leader in the newly established Center for Plant Molecular Biology (ZMBF). Research should be focused on genomics and proteomics. Participation in the local collaborative research project SFB 446 "Mechanismen des Zellverhaltens in Eukaryoten" is expected.

Habilitation or equivalent qualification is required. Statements of research interests and teaching experience, a curriculum vitae, and a list of publications should be sent to: **Dekan der Fakultät für Biologie, Universität Tübingen, Hölderlinstrasse 19, D-72074 Tübingen.**

Deadline for applications is June 25, 1999.

The University of Tübingen is an Equal Opportunity Employer. Women are encouraged to file an application.

POSTDOCTORAL POSITION available immediately in a collaborative group (**Dr. L. E. French**, Prof. J. Tschopp; see: *Science* 274:1363, 1996; *Science* 282:490, 1998) to study death-receptor signaling in melanoma, with special focus on animal tumor models and potential strategies for therapeutic modulation (gene delivery and recombinant protein approaches). Experience in immunology, molecular biology, and mouse tumor models is required. Send curriculum vitae, with three references to: **Dr. Lars E. French**, Department of Dermatology, Geneva University Medical Center, 1 Rue Michel-Servet, 1211 Geneva 4, Switzerland. FAX: 41-22-3729470; e-mail: french@cmu.unige.ch.

GLOBAL OPPORTUNITIES

RESEARCH FELLOW IN DEVELOPMENTAL HEMATOPOIESIS NEW ZEALAND

A three-year Research Fellowship is available immediately to work on the function of some BMPs in zebrafish blood and vascular development (see: *Genome Research* 9:121). The applicant must have zebrafish experience with a strong background in developmental biology and genetics. The group has several related projects focused on understanding the function of BMPs and other secreted regulators in development. This enthusiastic group has a well-organized fully staffed zebrafish facility.

Send curriculum vitae with the names and addresses of three referees to: **Dr. Phil Crosier**, Department of Molecular Medicine, School of Medicine, University of Auckland, Private Bag 92019, Auckland, New Zealand. Telephone: 64-9-373-7599, ext. 6279; FAX: 64-9-373-7010; e-mail: ps.crosier@auckland.ac.nz.

CONFERENCE

NEW GORDON RESEARCH CONFERENCE

Non-antibiotic properties of tetracyclines and other antibiotics. Andover, New Hampshire, July 11-16, 1999. Effects of TCs/Abx on MMPs, inflammation, metastases, gene expression, cytokines, proteases. Contact: **R. Greenwald**, e-mail: rgreen@lij.edu or Gordon Research Conference website: grc.uri.edu.

COMPUTER MARKETPLACE

EnzFitter for Windows

Powerful generic curve-fitter with custom features for enzyme kinetics. Many models given, or create your own. Excellent data handling and graphics. Batch facilities give high throughput. More... \$399

www.biosoft.com

BIOISOFT email: info@biosoft.com Tel: 314 524 8029

Circle No. 20 on Readers' Service Card

MARKETPLACE

Science's Literature Library

www.scienceonline.org

Click on E-Marketplace.

HUMAN CNS CELLS

Normal neuronal precursor cells

Down's syndrome neuronal precursor cells

Microglial cells

Clonexpress, Inc. Ph: 301-869-0840

www.clonexpress.com; info@clonexpress.com

Circle No. 69 on Readers' Service Card



TriLink BioTechnologies
Superior Quality with Unparalleled Service

Modified NTPs

See the TriLink difference
Experience Matters
800-863-6801

www.trilinkbiotech.com

Circle No. 42 on Readers' Service Card

Coated Microwell Plates Coated Microscope Slides

XENOPORE Corp.

www.xenopore.com

1-800-356-6296 1-973-423-2400

Circle No. 41 on Readers' Service Card

2D Electrophoresis Services

Custom 1D/2D Protein PAGE
Proteomics & MALDI-MS
Confidentiality Guaranteed
Kendrick Labs, Inc.
1 800 462 - 3417
http://www.kendricklabs.com

Circle No. 40 on Readers' Service Card

GENE SYNTHESIS

FROM \$7 PER BASE
1-800-562-5544
www.syntheticgenetics.com

Circle No. 68 on Readers' Service Card

MARKETPLACE

Macromolecular Resources

Oligonucleotides \$1/base-\$5 setup fee (FREE SHIPPING*) (Just for Oligo's)	• DNA Sequencing • Protein Sequencing • Mass Spec • Peptides	\$30/analysis \$30/residue \$40/analysis \$25/residue (\$100 setup)
--	---	---

No bulk orders required on any purchases!

TEL: 1-800-491-0424 FAX: 1-800-436-2329
http://mmi.bmb.colostate.edu **macromolres@mmi.bmb.colostate.edu**
Macromolecular Resources supports the education, research and public service missions of Colorado State University

Circle No. 39 on Readers' Service Card

T.E.A.M.* Lampire

*The Expert Antibody Maker

**Expressline Service: 3 rabbits,
50 days, less than \$395.**



Lampire Biological Laboratories, Inc.

Ph: 215-795-2838 Fax: 215-795-0237

e-mail: lampire@lampire.com

Circle No. 57 on Readers' Service Card



A Better Way to Purify Basophils

StemSep™ Immunomagnetic Negative Cell Selection

Tel: (604) 877-0713 Toll-free Tel: 1-800-667-0322
Fax: (604) 877-0704 Toll-free Fax: 1-800-567-2899
info@stemcell.com **www.stemcell.com**



Circle No. 5 on Readers' Service Card

Spin Filter Kit

**Purify PCR* products
in 3 minutes**

spin filter format, easy and fast!

MO BIO Labs, Inc.

800-606-6246/760-944-7190/fax 760-944-7134
email: orders@mobio.com / **http://www.mobio.com**

Circle No. 7 on Readers' Service Card

Keystone Labs Custom Oligos

90¢/base
No Set-up Fee!

Order: **www.keydna.com**

Tel: 800-788-4362 • Fax: 800-786-4362

A BioSource International, Inc. Company

Circle No. 14 on Readers' Service Card

Custom Antibodies & Peptides

No Hidden Charges!

Custom Antibodies from \$1295 including:

- Free consultation and tech support
- HPLC purification, MS & HPLC analysis, N/C-terminal modifications, 4-6mg peptide, 100+ml serum, ELISA & more

Custom peptides from mg to >10g
HPLC purification available up to 98+%!

800-435-2080
Fax: 508-435-2199
Order on-line:
www.qcb.com



QCB is a division of BioSource International, Inc.

Circle No. 70 on Readers' Service Card

MARKETPLACE



**MORE PRODUCTS
ON PREVIOUS PAGE**

CUSTOM HYBRIDOMA DEVELOPMENT

1-800-481-9737



(760) 788-9691 • fax: (760) 788-9694
e-mail: antibodies@htibio.com
http://www.htibio.com

Circle No. 17 on Readers' Service Card

**Polyclonal Peptide
Antisera**

From peptide synthesis through to fully titred sera at competitive prices. Please call for details:

Web: www.chirontechnologies.com

CHIRON TECHNOLOGIES

US: West Coast Tel: 800 644 1866 Fax: 800 655 1866
US: East Coast Tel: 800 633 8161 Fax: 800 424 3970
International Tel: +61 3 9565 1111 Fax: +61 3 9565 1199
Europe Tel: +33 141 38 9400 Fax: +33 141 38 9409

Circle No. 27 on Readers' Service Card

Widely
Recognized
Original &
Guaranteed

KlenTaq1

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

US Pat # 5,436,149

Call: **Ab Peptides** 1-800-383-3362
Fax: 314-968-8988 abpeps@icon-stl.net

Circle No. 18 on Readers' Service Card

routine & unique

ANTIBODIES

Specific markers for a wide range of applications:

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

BMA BIOMEDICALS AG

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

Circle No. 19 on Readers' Service Card

Mutagenesis

as low as **\$500**

DNA...It's in our blood

1-800-654-4671
<http://www.ana-gen.com>

ANA-GEN
Ana-Gen Technologies, Inc.

Circle No. 21 on Readers' Service Card

XX IDT
INTEGRATED DNA TECHNOLOGIES, INC.

Trust IDT
Innovation and Precision
In Nucleic Acid Synthesis

1-800-328-2661 - www.idtdna.com

Circle No. 1 on Readers' Service Card

MARKETPLACE

DNA Primers from \$0.85/base

Ready to Use
No Setup Charge
No Hidden Costs



Institutional
Discounts
Available

The Great American Gene Company
<http://www.geneco.com>
email: geneco@ix.netcom.com fax: (800) 816-5517

Circle No. 15 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. 11 on Readers' Service Card

CUSTOM DNA SYNTHESIS

PURE & SIMPLE

- Superb Technical Support
- Impeccable Quality
- World's Fastest Service
- Cap Gel & TOF Mass Spec

\$1.19* per base
\$10 setup
50 nmole scale

* Some restrictions apply. Please call for details.

MIDLAND
STILL THE UNDISPUTED #1 CUSTOM DNA SYNTHESIS SERVICE

THE MIDLAND CERTIFIED REAGENT COMPANY
Phone 1-800-247-8766 FAX 915-694-2387
email mrcr@oligos.com

Circle No. 3 on Readers' Service Card

Smart Move!

Customized Project Support
with GLP. You Win!

DNA TECHNOLOGIES

- Molecular Biology Services:
 - Large Scale Plasmid Preps (1-500mg, Endotoxin-free)
 - Cloning Projects
 - Overexpression Projects
 - Site-Directed Mutagenesis Projects
 - Batch Fermentation Service
 - Library Screening
 - cDNA & gDNA

**Commonwealth
Biotechnologies, Inc.**

Call Toll Free Fax On Demand 1-877-329-4224
Toll Free 1-800-735-9224
Or visit us at www.cbi-biotech.com

Circle No. 12 on Readers' Service Card

DNA SEQUENCING

**All Templates,
1 FREE RUN**

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

1-800-4-PLASMID - www.bio101.com

Circle No. 38 on Readers' Service Card

MARKETPLACE

BIO•SYNTHESIS, INC.

**DNA
Sequencing**

AS LOW AS **\$25/run*** * Volume discount available

Accelerate your discoveries

Other services: Cloning, Expression,
Mutagenesis, Gene Synthesis,
Contract R&D, & more...
1-800-DNA-EXAM Fax: (973) 428-8442

Circle No. 16 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-1g
- 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** Europe **(+44) (0) 1223 839000**
email: info@genosys.com email: genosys@genosys.co.uk

Circle No. 72 on Readers' Service Card

Custom Polyclonal Antibodies

BEST PRICES • BEST ANIMALS

ANIMAL PHARM SERVICES
(800)808-0550

Circle No. 2 on Readers' Service Card

DNA PEPTIDES

Call for prices **\$15.00/residue**

**Gene Synthesis,
Site Mutagenesis, Protein
Expression** as low as \$500

Sequencing: \$25 per run

Custom Anti-peptide Antibody
(including peptide synthesis)
\$850

GENEMED SYNTHESIS
800.344.5337 Fax: 650.952.9540 <http://www.genemedsyn.com>

Circle No. 13 on Readers' Service Card

Custom Sequencing

SEQEXPRESS - \$40/run
<http://www.resgen.com>

Research Genetics, Inc.
1-800-533-4363

Circle No. 4 on Readers' Service Card

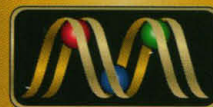
synthetic DNA from MIDLAND

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 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. 50 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® technology—a registered trademark of Pan Vera Corporation, Madison, WI.

CALL US FOR
MORE INFO ON
MIDLAND
MOLECULAR
BEACONS!

Quantikine[®] mRNA

Colorimetric mRNA Quantitation Kits

Quantikine mRNA is a colorimetric microplate assay that can quantitate low levels of cytokine-specific mRNA. Total or Poly (A)⁺ RNA may be used. Quantikine mRNA is easy to perform, can be completed in less than 5 hours and uses a conventional microplate reader.

Advantages

- ✓ Non-radioactive
- ✓ Non PCR-based method
- ✓ Amenable to high sample throughput
- ✓ Requires less sample than a Northern Blot or RPA

Kits Available

Human:

- IL-1 β
- IL-2
- IL-6

Please Inquire

Human:

- GAPDH
- IFN- γ
- IL-10
- TNF- α

Mouse:

- IFN- γ
- IL-1 β
- IL-2
- TNF- α

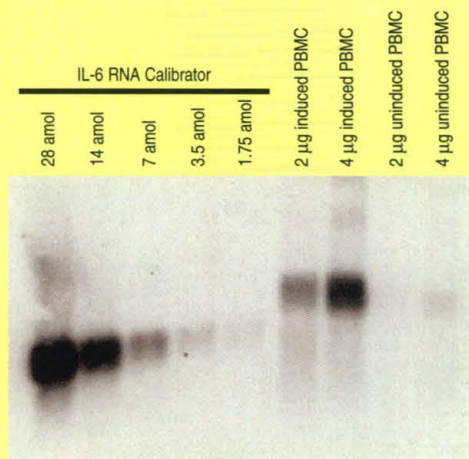
Quantikine mRNA is comprised of two parts, a Base Kit and a Cytokine-specific Kit. At least one Base Kit and one Cytokine-specific Kit are required to perform the assay.

Cytokine-specific Kit Contents:

- Calibrator
- Cytokine-specific probes

Base Kit Contents:

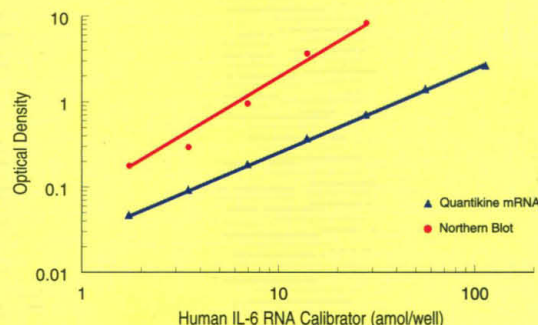
- Diluents
- Conjugate
- Substrate
- Capture Plate
- Hybridization Plate



Quantitation of human IL-6 RNA by Quantikine mRNA and Northern Blot is comparable.

The human IL-6 RNA Calibrator and total RNA samples from PHA-induced human PBMCs (10 μ g/mL for 6 hours) and uninduced PBMCs were evaluated by Northern Blot following analysis by the Quantikine mRNA assay. It was determined by the Quantikine mRNA assay that induced (2, 4 μ g/lane) and uninduced PBMCs (2, 4 μ g/lane) contained 9.4, 18.8, 0* and 2.2 amol of IL-6 RNA, respectively. Similar values were obtained by Northern Blot analysis. The blot was hybridized with a random-primer labeled DNA probe and exposed for 3 days at -80° C with an intensifying screen.

*Undetectable by either method



Human IL-6 Calibrator curves from the Quantikine mRNA assay and Northern Blot are comparable.

The autoradiograph was read on a scanning densitometer at 450 nm. The Quantikine mRNA assay was quantitated on a microplate reader at 490 nm.

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 551100
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
info@rndsystems.co.uk

**R&D
SYSTEMS**

1-800-343-7475
www.rndsystems.com

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES.
Circle No. 53 on Readers' Service Card