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end of the stainer. It makes use of the time-tested "clip-on" system, in which the slides, attached to clips, move at a uniform rate along a conveyor through the staining station in under 5 min. Technicians can inspect, add, or remove slides at any point in the process. For situations that require hand staining, the technician can dip through the stations, eliminating the need to set up separate staining dishes.

## NORTHERN HYBRIDIZATION AND DETECTION KIT

The RNADetector Northern Hybridization and Detection Kit is a safe, nonradioactive detection system that offers sensitivity equivalent to that of  $^{32}\text{P}$  in less time. The kit requires only 1  $\mu\text{g}$  of RNA to run on the gel. The biotinylated probes are stable for months and can be reused many times. The kit is fast and easy to use.

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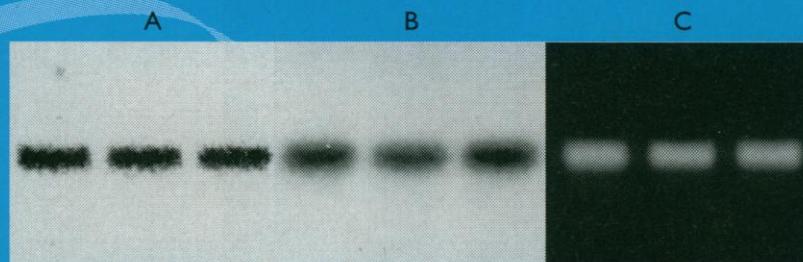
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CONTINUED ON PAGE 1378

## MRC Presents: SUPER Hyb™ Kit

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Hybridization of rat total RNA (5 $\mu\text{g}$ /lane). Detection of  $\alpha_{1s}$  subunit of skeletal muscle DHP receptor (A) and hypothalamic GHRH (B) using  $^{32}\text{P}$  probe. Non-radioactive detection of GAPDH (C).

## MRC

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The mRNAlocator-Hyb in situ hybridization (ISH) kit is designed to simplify the hybridization of biotin-labeled RNA or DNA probes to paraffin-embedded tissue or cell sections. Its streamlined 6-hour procedure cuts days off the traditional ISH method without compromising sensitivity. It can be used with the mRNAlocator-Biotin kit for the detection of biotinylated probes.

#### Ambion

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#### LITERATURE

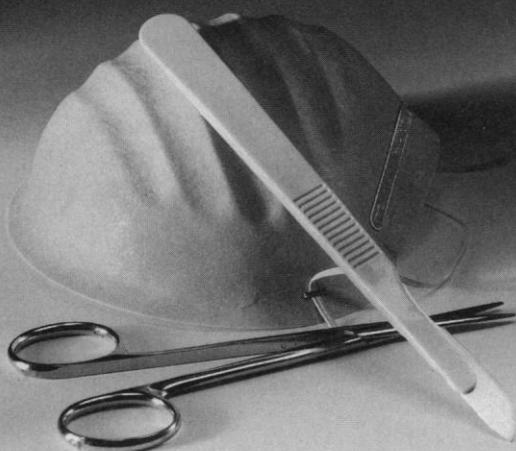
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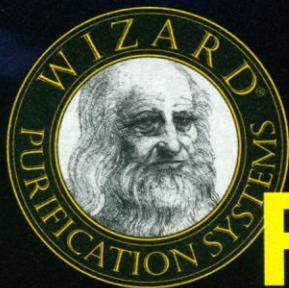
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**Call for entries:** You must be a recent Ph.D. graduate (awarded between 1 January and 31 December 1998) working in molecular biology. Full details and the required entry form can be requested from the Web sites below. Closing date for entries is 15 June 1999. Prizes will be presented at an award ceremony in December 1999.

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### POSITIONS OPEN

#### FACULTY POSITIONS CARDIOVASCULAR PHARMACOLOGY CANCER/IMMUNOLOGY

Texas Tech University Health Sciences Center (HSC) School of Pharmacy invites applications for two tenure-track faculty positions at the ASSISTANT or ASSOCIATE PROFESSOR level in the Department of Pharmaceutical Sciences. The Department is composed of 17 full-time faculty members with interests in biomedical and pharmaceutical research. Applicants must have a Doctoral degree and postdoctoral training experience. Successful candidates will be expected to develop a strong research program as well as teach and mentor undergraduate and graduate students. The School of Pharmacy is located in a 102,000-plus-square foot building on the Harrington Regional Medical Center in close proximity to the Amarillo campus of the Texas Tech School of Medicine. For more information, visit our home page at [website: http://pharmacy.ama.ttuhs.edu](http://pharmacy.ama.ttuhs.edu). Applicants should submit a curriculum vitae, a brief summary of research and teaching interests, and names and addresses of at least three references to: **Dr. Quentin Smith, Texas Tech University Health Sciences Center, School of Pharmacy, 1300 Coulter Drive, Amarillo, TX 79106. FAX: 806-356-4034; e-mail: [quentin@cortex.ama.ttuhs.edu](mailto:quentin@cortex.ama.ttuhs.edu).** *Texas Tech University Health Sciences Center is an Equal Opportunity/Affirmative Action Institution. Minorities and women are encouraged to apply.*

#### ANNOUNCEMENT FOR FACULTY POSITIONS

Department of Anatomy, Physiology,  
and Pharmacology  
Auburn University  
College of Veterinary Medicine

Applications are invited for two tenure-track ASSISTANT/ASSOCIATE PROFESSOR positions. The successful candidate(s) will actively participate in instruction in the professional and graduate curriculum. The professional teaching will be in either histology or pharmacology. The successful candidate(s) will be expected to develop an independent research program. The current strengths of the department are in the areas of cardiovascular, endocrine/reproduction, sensory, and cell biology. Applicants must have a Doctoral degree (D.V.M., Ph.D., or equivalent) and postdoctoral experience. Applicants should submit a curriculum vitae, statement of research goals, and names of at least three references. Applications will be reviewed beginning June 21, 1999, and will be accepted until the position(s) are filled. Applications should be sent to: **Dr. Philip Posner, 109 Greene Hall, Auburn University, AL 36849-5518.** *Auburn University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

#### DEVELOPMENTAL NEUROBIOLOGIST INSTRUCTOR—ASSISTANT PROFESSOR

The University of Nebraska Medical Center invites applications for a position in the Department of Cell Biology and Anatomy at the academic level of Instructor or Assistant Professor. Applicants should have a Ph.D. or equivalent, and should have completed two or more years of postdoctoral experience. Experience with molecular genetics also is highly desirable, but not essential. The individual selected for this position will have experience in avian or murine developmental biology, and will be expected to collaborate in a research program that investigates gene/nutrient and gene/drug interactions that result in developmental abnormalities of neural crest and neural tube derivatives. Résumés and inquiries should be directed to:

Thomas H. Rosenquist, Ph.D.  
von Housen Professor and Chairman  
Department of Cell Biology and Anatomy  
University of Nebraska Medical Center  
986395 Nebraska Medical Center  
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*The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer. Women, members of underrepresented minority groups, and persons with disability are encouraged to apply.*

### POSITIONS OPEN

#### THE UNIVERSITY OF CHICAGO DEPARTMENT OF NEUROBIOLOGY, PHARMACOLOGY, AND PHYSIOLOGY

The University is making a significant commitment to the development of outstanding programs in cellular and molecular neurobiology under the direction of **Sangram S. Sisodia**. The Neurobiology Search Committee is inviting applications for tenure-track positions in neurobiology at the ASSISTANT and ASSOCIATE PROFESSOR levels. The successful candidates will join a multidisciplinary department composed of 22 primary and nine secondary faculty members whose research interests cover the areas of neurobiology of disease, developmental neurobiology, neuropharmacology, membrane receptors, signal transduction and second messenger mechanisms, membrane transport, structure and function of ion channels, vestibular and systems physiology, cytoskeleton, secretory pathways, and cell growth regulation. Although applications in all areas of neurobiology are welcomed, we are particularly interested in candidates working in developmental neurobiology; neuronal vesicular trafficking; molecular determinants of neuronal plasticity; neuron-glia/neuron-muscle interactions; trophic/cytokine signaling mechanisms; and transgenic/knockout models of neurodegeneration and neurodegenerative diseases. The successful candidate will be required to teach in appropriate undergraduate, graduate, and medical school courses. Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography, and the names of three individuals who are willing to write letters of recommendation to:

**Dr. Sangram Sisodia**  
Neurobiology Search Committee  
The University of Chicago  
Department of Neurobiology, Pharmacology,  
and Physiology  
947 East 58th Street  
Chicago, IL 60637

*From the time of its original charter, the principle of the University of Chicago has been to appoint scholars without regard to race, color, religion, sex, or national origin.*

#### ASSISTANT PROFESSORSHIP IN BIOMEDICAL SCIENCES FULL-TIME, TENURE-TRACK POSITION Open September 1999

Creighton University School of Medicine, Omaha

Applications are invited for the above faculty position. Teaching will be in neuroscience and anatomy. Research interests in neuroembryology are preferred. The appointee will be encouraged to interact with an existing collaborative group that includes Molecular Biologists and staff of the Boys Town National Research Hospital.

A competitive salary with full benefits and start-up funds will be provided. The position should be filled by September 1, 1999, or otherwise by agreement. Applications with curriculum vitae and names of three references should be sent to: **Richard F. Murphy, Ph.D., Chairman, Department of Biomedical Sciences, Creighton University School of Medicine, 2500 California Plaza, Omaha, NE 68178-0405.**

#### DIRECTOR OF MOLECULAR CARDIOLOGY Case Western Reserve University and University Hospitals of Cleveland

The Department of Medicine seeks applications or nominations for the James T. Wearn Chair and Director of Molecular Cardiology. The successful candidate will have an outstanding established research program in basic cardiovascular investigation and should be eligible for appointment at the level of Professor of Medicine at Case Western Reserve University. Please send résumés to: **Richard A. Walsh, M.D., Chairman, Department of Medicine, Case Western Reserve University, University Hospitals, 11100 Euclid Avenue, Cleveland, OH 44106. E-mail: [raw19@po.cwru.edu](mailto:raw19@po.cwru.edu).** *Case Western Reserve University and University Hospitals Health System are Equal Opportunity/Affirmative Action Employers. Women and minorities are encouraged to apply.*

**POSITIONS OPEN****FACULTY POSITION IN MICROBIOLOGY**

The Department of Microbiology at The University of Texas Health Center at Tyler is seeking applicants for a faculty position at the level of **ASSOCIATE** or **ASSISTANT PROFESSOR** who have a primary interest and research experience in the molecular genetics of the nontuberculous mycobacteria. The successful applicant's research interests will integrate and complement current long-standing clinical and basic research efforts involving *Mycobacterium avium* complex and rapidly growing mycobacteria. The applicant's previous work should have been judged by peer review to have been scientifically rigorous and he/she should be able to compete successfully for peer-reviewed grants. Please send curriculum vitae, summary of research interests, and names of three references along with a letter of intent to: **Richard J. Wallace, Jr., M.D., Chairman, Department of Microbiology, The University of Texas Health Center at Tyler, 11937 U.S. Highway 271, Tyler, TX 75708.**

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**INSTRUCTORS IN MICROBIOLOGY**

Washington State University invites applications for temporary faculty positions. Instructors will teach introductory microbiology, epidemiology, and/or medical microbiology. Positions are potentially available for two to three years. Ph.D. degree required with some evidence of relevant university teaching experience preferred. Interested candidates should send a letter of application, including a curriculum vitae and names and contact information for three references to: **Dr. Michael Kahn, Department of Microbiology, Washington State University, Pullman, WA 99164-4233.** Review of applications will begin immediately. *Washington State University employs only U.S. citizens and lawfully authorized non-U.S. citizens. Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Members of ethnic minorities, women, Vietnam-era or disabled veterans, persons of disability, and/or persons age 40 or over are encouraged to apply.*

A faculty position in the tenure-track is open in the Department of Biochemistry and Molecular Pharmacology for any rank, **ASSISTANT** through **FULL PROFESSOR**. We seek someone with an active research program in molecular pharmacology who has a commitment to education. Approximately 25 percent to 30 percent effort will be for directing a team-taught course in pharmacology for medical students in the fall of their sophomore year. Applicants should send a curriculum vitae and direct three letters of recommendation to: **Dr. Gerald Litwack, Chairman, Department of Biochemistry and Molecular Pharmacology, Jefferson Medical College, Thomas Jefferson University, 350 BLSB, 233 South 10th Street, Philadelphia, PA 19107.** This search will continue until the position is filled. *Thomas Jefferson University is an Equal Opportunity Employer.*

**UNIVERSITY OF FLORIDA**

Seeks an **ASSISTANT/ASSOCIATE PROFESSOR/PROFESSOR** in the Department of Medicine, Division of Cardiology. M.D. degree, Board-certified/Board-eligible in cardiology. The responsibilities will include patient care in the Shands Hospital Cardiology Clinics; also provide care for patients located in our off-campus office. This position will provide teaching to the cardiology Residents and medical students. Salary and benefits commensurate with experience. Recruiting deadline May 20, 1999. Anticipated starting date July 1, 1999. Please reply with curriculum vitae to: **C. Richard Conti, M.D., Eminent Scholar, Division of Cardiology, Box 100277 JHMHC, Gainesville, FL 32610.**

**POSITIONS OPEN****NATIONAL EYE INSTITUTE  
NATIONAL INSTITUTES OF HEALTH**

The intramural program of the National Eye Institute invites applications for a position as a **RESEARCH SCIENTIST** within the Laboratory of Sensorimotor Research. This position may be either tenured, or tenure-track with conversion to tenure anytime within six years. Applicants will be expected to establish a research program related to understanding the neurobiology of the visual and/or oculomotor system in monkeys. The Laboratory of Sensorimotor Research is devoted to understanding the organization of the brain related to the control of eye movements and visual perception. It has excellent facilities for the study of these systems in awake behaving primates, including dedicated computer systems, a machine shop, an electronics shop, and a histology laboratory. The Laboratory also provides the opportunity to collaborate on studies of human patients with diseases related to the visual and oculomotor systems. Candidates should send a brief cover letter, curriculum vitae, bibliography, a one- or two-page statement of current research interests, copies of recent, relevant publications, and three letters of recommendation to: **Dr. Lance M. Optican, Search Committee Chair, c/o Ms. Jean Steinberg, Building 49, Room 2A50, NIH, Bethesda, MD 20892-4435.**

The deadline for applications is August 1, 1999.

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**ASSISTANT PROFESSOR OF  
FOOD SCIENCE AND TECHNOLOGY  
Department of Food Science and Technology  
The Ohio State University, Columbus, Ohio**

Ohio State University invites applications for a tenure-track faculty position in carbohydrate chemistry, cereal chemistry or technology, functional foods, physiologically active food components, or a similar area.

Salary and benefits are competitive with other positions. Requirements are a Ph.D. degree in food science, nutrition, or a related discipline.

Up-to-date credentials, college transcripts, publication abstracts, a one-page statement of academic philosophy, and letters from three or more references should be sent by September 1, 1999, for full consideration. We will consider all applications until the position fills. Send to: **Dr. Sheryl Barringer, Search Chair, 2121 Fyffe Road, Columbus, OH 43210-1097. FAX: 614-292-0218; Telephone: 614-688-3642; e-mail: barringer.11@osu.edu.**

*The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

University of Florida seeks a **CLINICAL ASSISTANT PROFESSOR** in the Department of Medicine, Division of Nephrology. M.D. degree, Board-certified/Board-eligible in nephrology. A full-time non-tenure-track position with the responsibilities of patients' care in the Outpatient Clinic. Advise and instruct Residents and medical students. Main focus will be on renal transplantation and clinical research. Salary and benefits commensurate with experience. Recruiting deadline June 17, 1999. Anticipated starting date July 19, 1999. Please reply with curriculum vitae and cover letter to: **Charles Wingo, M.D., Department of Medicine, Box 100224 JHMHC, Gainesville, FL 32610.** *Affirmative Action/Equal Opportunity Employer.*

**HEAD, DIVISION OF  
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Mississippi University for Women, admitting men since 1982, and ranked for academic excellence, invites applications for Head, Division of Science/Mathematics. Ph.D. in math, physical or biological science, administrative experience preferred; teaching required. Send letter of application, curriculum vitae, transcripts, and five references to: **Mississippi University for Women Personnel, Box W-1609, Columbus, MS 39701. Telephone: 662-329-7386; website: www.muw.edu.** *Affirmative Action/Equal Opportunity Employer.*

**POSITIONS OPEN****ASSISTANT PROFESSOR  
DEPARTMENT OF PHARMACOLOGY  
AND PHYSIOLOGY  
University of South Carolina**

Tenure-track position at the Assistant Professor level is available January 2000. The person selected will be expected to develop an independent research program with external funding and teach medical and graduate students. Areas of research are open to individuals using modern techniques to investigate physiological problems. Centers of Research Excellence (COREs) exist in cardiovascular research, neuroscience, cancer, and geriatrics. It is expected that the individual will have a Ph.D. or M.D. with a minimum of two years of postdoctoral experience. Potential for development and maintenance of an externally funded, independent research program will be evaluated.

The Department consists of 14 full-time faculty and numerous adjunct and joint appointees. The Department is housed in modern facilities along with the other basic science departments of the School of Medicine. Ample opportunities exist for collaboration with other Investigators. Interdisciplinary research is encouraged. Review of files will begin August 1, 1999.

Candidates should submit a letter describing professional goals, a curriculum vitae, and the names of three references to: **Dr. Donald O. Allen, Professor and Chair, Department of Pharmacology and Physiology, School of Medicine, University of South Carolina, Columbia, SC 29208. Website: <http://www.med.sc.edu:96/FACPOS.HTM>.**

*USC is an Affirmative Action/Equal Opportunity Employer.*

A research position in molecular genetics is available at the Victor Goodhill Ear Center (VGEC), Division of Head and Neck Surgery, UCLA School of Medicine. This appointment is at the **ASSISTANT PROFESSOR-IN-RESIDENCE** level with salary support from the Center's endowment funds and renewable every five years. Research will focus on the molecular biology of developmental and adult vestibular and auditory inner ear organs. The appointee is expected to direct the Laboratory of Molecular Biology and develop an independent research program.

A successful multidisciplinary research group within the VGEC that includes Investigators from the Departments of Otolaryngology, Neurology, Ophthalmology, and Neurobiology, is studying different aspects of the vestibular system's anatomy and function, spontaneous and hereditary dyssync processes, and the biology of hair cell and vestibular nerve regeneration. There is ample laboratory space, equipment, and start-up support, and the opportunity to interact and collaborate in clinical and basic research projects. Ongoing research activities will greatly facilitate incorporating the successful candidate into the VGEC academic program. Previous research experience in this field of inner ear biology is not necessary.

Candidates should send their curriculum vitae, a brief description of their past and proposed research, and three letters of recommendation to: **Search Committee, Victor Goodhill Ear Center, c/o Dr. Vicente Honrubia, Division of Head and Neck Surgery, UCLA School of Medicine, 10833 Le Conte Avenue, Los Angeles, CA 90095-1624.**

The USDA Small Business Innovation Research (SBIR) program seeks a qualified **BIOLOGIST** to serve as **PROGRAM DIRECTOR** for grants administration. Candidates must have an advanced degree with major study in some area of biology. Candidates with expertise in biologically oriented agricultural engineering are encouraged to apply. *Candidates must be U.S. citizens and it is preferable that they have a Ph.D. degree or equivalent experience.*

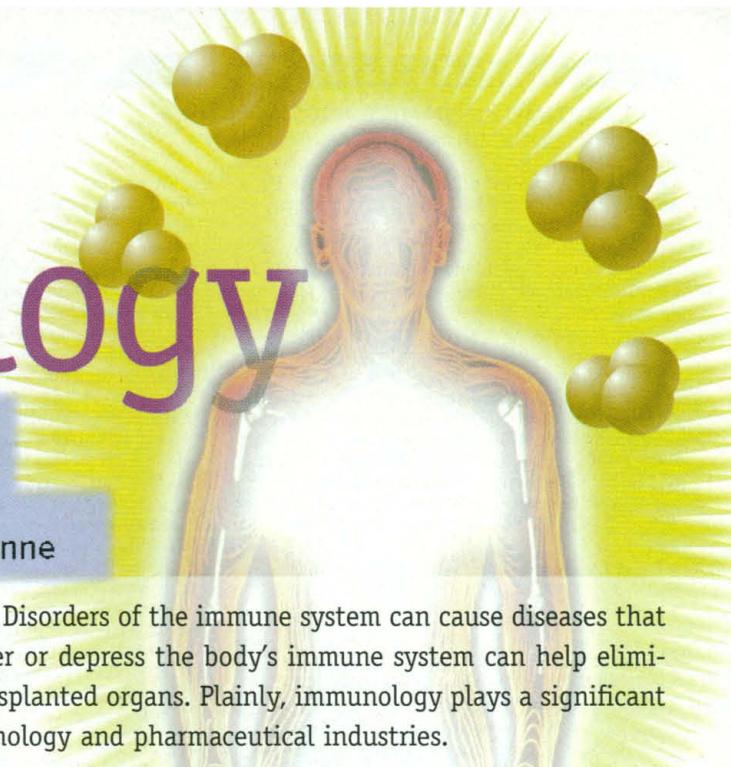
Closing date is July 6, 1999. Applicants will be evaluated against Quality Ranking Factors that are detailed in the vacancy announcement. For information on the position, contact: **Dr. Charles F. Cleland, Telephone: 202-401-6852; e-mail: [ccleland@reusda.gov](mailto:ccleland@reusda.gov).** For information on application procedures/forms, contact: **The Human Resources Division, Telephone: 202-720-6130; website: <http://www.reusda.gov/hrd/99-091.htm>.** *USDA is an Equal Opportunity Employer.*

focus on careers

# Immunology

## Immunology Grows in Influence

by Peter Gwynne



The immune system represents a major key to good health. Disorders of the immune system can cause diseases that range from AIDS to rheumatoid arthritis. Drugs that bolster or depress the body's immune system can help eliminate infections, fight cancers, and prevent rejection of transplanted organs. Plainly, immunology plays a significant role in the biomedical sciences, medicine, and the biotechnology and pharmaceutical industries.

For the pharmaceutical industry, the field has reached a significant stage, with the arrival of the first wave of drugs targeted specifically at the immune system. These have resulted from basic research on the molecular basis of the immune response. Medications for controlling the immune system, such as the cyclosporin used to dampen down the immune systems of transplant recipients, are both nonspecific in action and toxic to various parts of the body. The new drugs target specific components of the immune system.

The new drugs coming onto the market—such as Enbrel, a treatment for rheumatoid arthritis—work at the level of the cell surface. Pharmaceutical research now under way aims to act by blocking signal transduction inside cells in the immune system. Researchers in immunology anticipate that a third wave of drugs will work at the molecular level inside the cells, by influencing transcription factors.

Immunology in the United States is under the influence of some less positive factors. A panel of the National Academies of Science and Engineering and the Institute of Medicine recently reported that while the United States leads the world in the discipline's sub-fields, it no longer dominates some topics, such as inherited immunodeficiency and tumor immunology.

To counter that problem, and to continue development of new immunological drugs, the pharmaceutical industry requires a continuing supply of immunologists at all levels of training. Recruiters routinely expect candidates to show competence in the techniques of molecular biology. Candidates should also be comfortable working in large interdisciplinary teams.

**PRINCETON, New Jersey:** Immunology plays a large role in pharmaceutical company Bristol-Myers Squibb (BMS). The company is testing CTLA4-IG, a medication designed to block activation of the immune system.

Not surprisingly, BMS needs immunologists. "Right now we're in the middle of hiring," says Alejandro Aruffo, BMS's vice president for immunology, inflammation, and pulmonary drug discoveries. "We are trying to boost our pulmonary group, which is a relatively new area for us."

Aruffo seeks recruits at all levels. Scientists with M.S. and B.S. degrees are often hired as staff scientists. Ph.D's and M.D.-Ph.D's may take on the roles of senior group leaders. "On occasion," he adds, "we will also look at postdocs, although we do this more on a case-by-case basis."

What skills does Aruffo expect entering immunologists to possess? "We have come to understand that our disease targets — such as rheumatoid arthritis, asthma, and immunosuppression for transplant patients — share several factors," he says. "So we want to hire individuals with expertise in cell surface receptors, and molecules involved in signal transduction and transcription. We expect that most people entering the lab will be competent in molecular biology tools. We are looking for good experience in understanding how to handle cells of the immune system. Candidates should be able, for example, to isolate leukocytes and set up leukocyte interactions *in vitro*."

The ability to participate in multidisciplinary teams is essential. "The pace is so fast that people cannot master all the techniques they will need for a drug discovery project," Aruffo explains. "So you have interdisciplinary teams all working toward the same purpose. These teams have to be able to come together very readily, and disassemble very readily. This requires that individuals be able to work very well in teams."

One other key requirement is an awareness among teams of what their ultimate objective is. "Our mission is to develop drugs," says Aruffo. "Scientists must learn to focus on this objective."

Bristol-Myers Squibb ■ Peptide Therapeutics ■ Novartis

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

Continued >



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BS/MS in Biochemistry with 2+ years of related experience to perform small/mid/large-scale protein purification for protein structural studies. Proficiency in devising, optimizing, and executing protein purification schemes for recombinant proteins, as well as protein purification troubleshooting skills are required.

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Ph.D. with 2+ years experience in a computational discipline, including extensive knowledge of statistical data modeling, machine learning methodologies, and relational databases. Work on our human genome project in collaboration with the Whitehead Functional Genomics Consortium at MIT. (Very limited travel.) Facility in programming in C/C++ as well as scripting languages is expected.

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### Head of Pulmonary Drug Discovery

Ph.D., M.D., or M.D./Ph.D. with a proven track record in pulmonary drug discovery research (minimum 7 years). Will lead a group and work as part of an interdisciplinary team focusing on the development of drugs for the treatment of immunological, inflammatory and pulmonary diseases.

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### Electrophysiologist

BS/MS with 2+ years of academic or industrial laboratory experience in the areas of molecular physiology, pharmacology, or biophysics of ion channels to work in Cardiovascular Drug Discovery. Ideal candidate will have broad skills in the area of ion channel research and experience with techniques including patch-clamp, fluorescence microscopy, myocyte isolation and cell culture.

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### Cell/Molecular Biologist

Ph.D. and 3-5 years of experience to work in the Dept. of Age-Related Diseases. Demonstrated experience in the regulation of stress response and apoptosis required. Ability to develop and execute assays for these cellular functions a strong plus. Experience with mitochondrial involvement in stress response a plus.

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### In Vivo Physiologist/ Pharmacologist

BS/MS in Physiology or Pharmacology and experience with in vivo techniques, preferably with an emphasis on urogenital models. Individual will be responsible for the design, validation and implementation of various models of urogenital function and may also assist with hemodynamic studies as needed.

**Job Code: PRCC85NL**

### In Vivo/Behavioral Research Neuroscientist

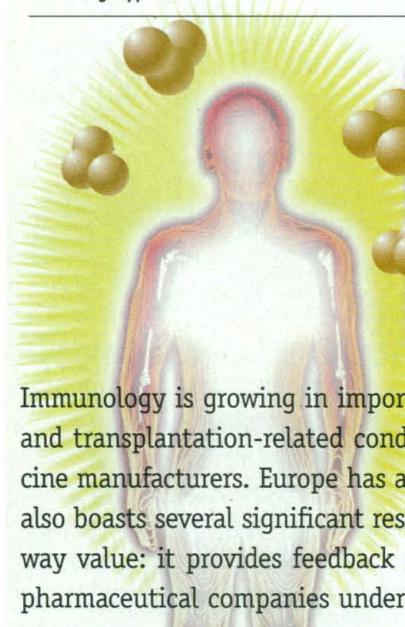
BA, MS, MA with extensive experience in the use of in vivo animal models of stroke. The candidate must be skillful in performing small animal surgeries and histology. Experience with data management and statistical analysis is essential. Proficiency in experimental design and data analysis is desired.

**Job Code: PRCC85AO**

Bristol-Myers Squibb uses resume-scanning technology. Please submit on plain white bond paper, using standard type and fonts (no italics, graphics or staples please) to the appropriate address.

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# Biotechnology and Pharmacology Boost European Immunology

Immunology is growing in importance in Europe, as large pharmas seek remedies for autoimmune diseases, allergies, and transplantation-related conditions. Several biotechnology companies work primarily on immunology. So do vaccine manufacturers. Europe has a particular strength in research on mucosal immunology and autoimmune disease. It also boasts several significant research centers that link clinical and laboratory research. That combination has a two-way value: it provides feedback to academic researchers who have laid the foundations for new drugs, and it helps pharmaceutical companies understand where their products will fit in.

Several European companies with interests in immunology have transatlantic subsidiaries or participate in collaborative research with North American corporations. Increasingly, collaborative projects also involve European universities. Indeed, some academic institutions now approach pharmaceutical companies in the effort to persuade them to undertake joint research.

Historically, Europe has had a relatively small — although sufficient — pool of immunologists. As the subject has grown in importance, however, so has the supply of trained immunologists from universities. European pharmas and biotechnology companies often fill their senior positions by recruiting European-born immunologists who have moved to the United States to gain experience in large laboratories. Ironically, the growth in European immunology is beginning to make that career path unnecessary. Immunologists can now obtain adequate experience on home territory.

**CAMBRIDGE, UK:** Incorporated in 1993, Peptide Therapeutics originally focused on immunotherapy. After it went public in 1995, the company began to work on vaccines as well. It recently acquired OraVax, a Cambridge, Massachusetts company that specializes in vaccines and antibody products.

Both Peptide's core pursuits demand expertise in immunology. "We're still hiring immunologists," says Alan Lamont, Peptide Therapeutics' director of biology. "We're interviewing for our vaccine section."

Peptide seeks a broad spectrum of scientists, from new B.Sc's to Ph.D's with industrial experience. Lamont expects candidates to demonstrate that they can interact effectively with fellow scientists. "In any company, the ability to work in teams is very important," he explains. "Individuals also have to under-



Alan Lamont

stand that one of the ways we can function more efficiently than large pharmas is to be flexible. I don't want people to concentrate entirely on one area and find change difficult."

Lamont looks for two other characteristics in applicants for immunology positions. "You should understand what you want to achieve from working in this company," he explains. "If there isn't a match between what you will get out of us and what we will get out of you, you won't be an effective employee." He also expects enthusiasm. "I like to see individuals who have that burning desire to do well at something they enjoy," he says. "In many ways, that can overcome a lack of experience."

**VIENNA, Austria:** "Since I joined this company two years ago, we have hired a dozen immunologists at different levels," says Jan de Vries, head of the therapeutic area dermatology at Novartis, the international pharmaceutical company headquartered in Switzerland. "We hired primarily postdocs, but a few came to more senior positions. We are continuing to hire this year, again primarily at the postdoc level."

Immunologists in de Vries's group study the regulatory mechanisms of major dermatological diseases. "Understanding the underlying immunological principles of psoriasis, for example, helps us to understand the principles of other immune conditions, such as transplant rejection," he explains. "That creates considerable synergies for other therapeutic areas within Novartis. We're working at a basic research level, but constantly thinking about how we can translate that work in a competitive fashion."

What does de Vries expect of immunologists who apply to work in Novartis? "They should be outstanding scientists and good team players. They should have some understanding of the diseases they're working on," he says. "When they apply to the industry, they should demonstrate willingness to translate their science in a creative way into practical applications that will benefit the industry that is paying their salaries." ■

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## **Research Investigator/Bench Scientist**

To qualify, we require research experience in transcriptional regulation of gene expression and experience in cardiovascular or metabolic disease. Competency with animal experimentation, including analysis of metabolic and cardiovascular parameters, and with molecular biological methods is necessary. Knowledge of nuclear receptor biology is required. Familiarity with transgenic technology and analysis of ectopic gene expression or knock out phenotype is preferred. You must possess a PhD and 4 years postdoctoral training. Research accomplishments documented by strong publication record is essential. (Ad Code: 990768A)

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## **Investigator/Senior Investigator-Safety Assessment**

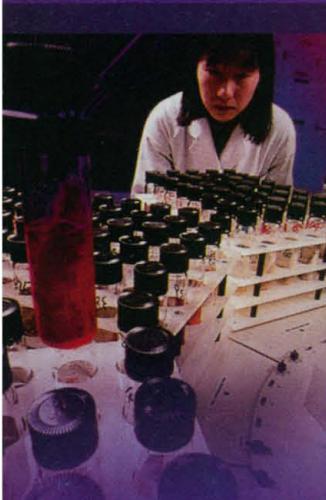
Safety Assessment provides scientists with the opportunity to belong to teams applying the most sophisticated and emerging scientific technologies to the drug development process to investigate cellular, sub-cellular and biochemical mechanisms of drug-induced toxicity. Investigative studies will work to understand the role of receptor-ligand interactions, intra- and extracellular signaling pathways and/or gene regulation pathways in the development of organ specific toxicity. In vitro and animal models (disease or transgenics) may be used to assess the role of specific molecules/proteins. Results will be presented for review internally, to regulatory agencies and also for publication in peer-reviewed scientific journals. You must possess a PhD in Cell Biology, Biochemistry, Cellular Toxicology or Immunology with 2-7 years post-doctoral experience and an excellent publication record. Research experience in receptor-ligand, signal transduction and/or cell regulatory pathways, and the working knowledge of rodent, human and/or nonhuman primate systems is also required. (Ad Code: 990780A)

## **Post-Doctoral Fellow**

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## **BIOLOGY RESEARCH SCIENTISTS, Ph.D.**

### **Neutrophil**

We are seeking a Ph.D. Scientist working in the field of Neutrophil Biology to join our active, multidisciplinary team of investigators in the discovery of novel agents for the treatment of respiratory and allergic diseases including COPD, chronic bronchitis, asthma and allergic rhinitis. A Ph.D. in Pharmacology, Immunology, Biochemistry or related field and a minimum of 3 years of post-doctoral research experience in an academic or industrial environment is required. Successful candidates will have a demonstrated record of independent and creative research in neutrophil pharmacology or signal transduction. Job Code: 9821220SCI

### **Inflammation**

Our Inflammation Discovery Team is seeking two Principal Investigators/Team Members who will focus with their research efforts on identifying and developing mechanism-based *in vitro* and *in vivo* models in the osteoarthritis/cartilage biology therapeutic area. Successful candidates will have a Ph.D. in Immunology, Pharmacology or related field and a minimum of 3 years of post-doctoral research experience in arthritis research. Strong oral and written communication skills essential. Job Code: 9710583SCI

### **Immunology**

We are seeking an *in vivo* Immunologist to join a multidisciplinary team of scientists dedicated to the discovery of novel immunosuppressive drugs for the treatment of autoimmune disease and transplant rejection. The principal responsibilities of this individual include establishing and validating models of autoimmune disease, evaluating *in vivo* pharmacodynamics and disease efficacy of candidate compounds. A Ph.D. in Immunology or related field and a minimum of 3 years of post-doctoral research experience required. Strong oral and written communication skills essential. Job Code: 9802027SCI

### **Immunology**

As a member of the Immunology Drug Discovery Team, you will lead a biology laboratory focused in hematopoietic differentiation, molecular signaling in hematopoietic progenitor cells, and T cell signaling and activation. You will be responsible for contributing to ongoing drug discovery programs and identifying new drug discovery targets. Strong background in hematopoiesis, T cell biology as well as molecular biology essential. Strong oral and written communication skills also essential. Ph.D. in Immunology, Biology or related field and a minimum of 3 years of post-doctoral research experience required. Job Code: 9821069SCI

### **Atherosclerosis**

The Atherosclerosis Biology Team seeks a research scientist to join them in the discovery of novel drugs for the treatment of atherosclerosis. Primary responsibilities include supervision of a laboratory focused on the validation of potential anti-atherosclerotic processes and evaluation of lead compounds using both *in vitro* and *in vivo* techniques. Ph.D. or equivalent degree in Biochemistry, Cell Biology, or related fields with 2+ years of post-doctoral experience in lipoprotein metabolism and/or the cellular and molecular mechanisms underlying atherosclerotic lesion development required. Experience in pharmaceutical research, along with some *in vivo* experience desired. Job Code: 9923160SCI

### **Infectious Diseases**

As a lab leader, you will coordinate experimental preclinical evaluation of antibacterial agents using established *in vivo* models of bacterial infection, conduct exploratory research to evaluate and establish new models of clinically relevant human bacterial infections, and refine existing models as needed. In doing so, you will direct a team of associate technical staff; provide training, guidance, and assign individual tasks to members of your group based on project team goals; interact productively with project team members to identify priorities and report results in a timely manner. A Ph.D. with relevant post-doctoral experience is required. Experience in evaluating the pharmacokinetic and pharmacodynamic properties of antibacterial agents is highly preferred. Must be a team-oriented individual with strong interpersonal and communication skills. Job Code: 9821076SCI

## **BIOLOGY ASSOCIATE SCIENTISTS, BS/MS**

### **Hematopoiesis**

Responsibilities for this position include proficient application of standard techniques of molecular and cell biology to the area of Hematopoiesis. You will be involved in the identification of novel targets in the area of erythropoiesis and myelopoiesis, and establishing an independent research project in the context of ongoing programs within the lab. Molecular approaches that are genomic and proteomic based will be used to identify and validate targets. Experience in the isolation and culturing of hematopoietic progenitors from blood or bone marrow and tissue culture experience required, while experience in the purification of hematopoietic cells from blood, cord blood or bone marrow is desirable. Job Code: 9925625SCI

### **Immunology**

Responsibilities for this position include proficient application of standard techniques of molecular and cell biology to the area of Immunology. You will be involved in the identification of novel targets in the area of immune suppression and hematopoiesis, and establishing an independent research project in the context of ongoing programs within the lab. Molecular techniques will be used to identify and validate targets in the immune suppression area. Experience establishing functional assay including measurement of intracellular calcium or enzymatic assays is desirable. Job Code: 9902201SCI

In addition to the above requirements, both the Hematopoiesis and Immunology positions require a BS/MS or equivalent with 3-5 years of experience, including experience in the isolation and culturing of hematopoietic progenitors from blood or bone marrow and tissue culture experience. Basic molecular biology skills such as DNA subcloning, RNA isolation, protein expression, PCR, Northern and Southern blotting, as well as protein biochemistry skills such as protein purification, SDS-PAGE, immunoprecipitation, Western blot and ELISA are essential. Extensive experience using gene transfer techniques and the generation of stable cell lines in mammalian cells is also required.

### **Inflammation**

Several positions are available for suitably qualified BS/MS scientists with training in a biological science (Pharmacology, Immunology, Cell Biology, Molecular Biology, Biochemistry), preferably with research experience in the immunology and/or inflammation area. Job Code: 9821070SCI

### **Drug Metabolism Technology**

As a member of a core technology group, you will participate in developing, applying and automating high-throughput *in vitro* techniques for the study of drug metabolism. In addition, you will play a major role in establishing methodologies for the biochemical production of metabolites of drug candidates. BS/MS or equivalent in Chemistry, Biochemistry, Bioengineering, or related science required; 3-5 years of relevant experience in drug metabolism or related field desired. Experience in enzyme kinetics, enzymology and/or molecular biology of drug metabolizing enzymes, *in vitro* drug metabolism studies with human and/or *in vivo* enzymes, and the preparation/characterization of microsomes is highly desirable. Job Code: 9922832SCI

### **Immunology**

You will join our drug discovery team in the area of immune enhancement/cancer immunotherapy and immune suppression/organ transplantation. Responsibilities include development of assays for validation of molecular targets and identification of novel immune regulators. BS or MS with 3 years of relevant experience and strong computer skills required. Experience with cellular and molecular immunology assays, protein biochemistry and enzymology, receptor binding and signal transduction, flow cytometry, and tissue culture desirable. Job Code: 9900087SCI

## **CHEMISTRY SENIOR ANALYTICAL CHEMIST, Ph.D.**

A new opportunity exists for a highly motivated Scientist in our Chemical Technologies Group within Exploratory Medicinal Sciences. As a lab leader, you will develop forefront technologies and methodologies in analytical and preparative chromatography for the quality assurance of chemical libraries produced through combinatorial and parallel synthetic methods. Ph.D. with post-doctoral and/or 2-5 years of experience required. In addition to theoretical and experimental background in separation science and quantitative analysis, you must be familiar with LC-MS and other LC detector technologies. An understanding of automation strategies, data integration, data management and the ability to build and maintain external/internal collaborations with a technology transfer component are essential. Knowledge of Visual Basic, C++, and Oracle is helpful. Must be a team-oriented problem solver with the ability to creatively apply theory and practical experimentation. Proven supervisory ability with strong interpersonal and communication skills also required. Job Code: 9902261SCI

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## NRC seeks visionary, scientific leaders to launch its **New Initiative In Genome Sciences And Health Research Program**

Biotechnology is considered to be of strategic importance to key sectors of the Canadian economy. The extraordinary range of applications includes the development of new human vaccines and therapeutics, the production of value-added crops, the design of pest-resistant plants, bioremediation and greater productivity in aquaculture. The National Research Council has been the lead research agency of the Canadian government since 1983 when the NRC Biotechnology Program was established under the guiding principles of the National Biotechnology Strategy. The Biotechnology Group at NRC is comprised of five institutes that engage in research and related activity within the realm of biotechnology – Biotechnology Research Institute (Montreal); the Institute for Biodiagnostics (Winnipeg); the Institute for Biological Sciences (Ottawa); the Institute for Marine Biosciences (Halifax); and the Plant Biotechnology Institute (Saskatoon).

The National Research Council's **Genomic and Health Initiative** will bring the benefits of revolutionary advances in genome science and health research to a variety of Canadian industrial sectors and regions. The initiative, in collaboration with other federal agencies, industries and universities, will make key contributions to national efforts to exploit advances in genome and health related research. This will be achieved by building upon NRC's expertise in its biotechnology research institutes, as well regional innovation systems in communities across the country. The NRC strategy will contribute directly to growth in agriculture, aquaculture, health and information technology industries.

### NRC is looking to recruit:

**Director, Genomic and Health Initiative** who will lead several research teams and the development of essential technology platforms and important research applications of genome science. Candidates must possess a Ph.D. with a specialization in molecular biology or biotechnology coupled with a proven scientific track record in either of these fields. Preference may be given to candidates who possess experience in genome sciences. Candidates must possess program management and research project leadership experience. This is a bilingual position, and knowledge of English and French is essential. This position requires travelling across Canada.

Several **Research Officers and Research Associates** are required to enhance and complement existing resources assigned to this initiative. Candidates must possess a Ph.D. with a specialization in molecular biology or biotechnology and recent experience in Genome Sciences in Agriculture, Pathogenesis, Age related human disease or Health Diagnosis Development. Various linguistic profiles for these positions will be established. If you've got the creativity and drive to be part of the leading edge, join us!

Salary will be commensurate with qualifications. A bilingualism bonus of \$800 a year may apply.

To explore this opportunity, send your application by June 30, 1999, indicating reference **BIOTECH-99**, to **Caroline Dunn, Senior Human Resources Consultant, National Research Council Canada, Sussex Drive, Room 1152, Ottawa, Ontario, K1A 0R6**.

We thank all those who apply and advise that only those selected for further consideration will be contacted.

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## Biochemistry and Pathobiology Branch Environmental Carcinogenesis Division National Health and Environmental Effects Research Laboratory Research Triangle Park, North Carolina

The U.S. Environmental Protection Agency (EPA) is seeking candidates for the position of Chief, Biochemistry and Pathobiology Branch, Environmental Carcinogenesis Division (ECD), National Health and Environmental Effects Research Laboratory (NHEERL). This position is located in the Research Triangle Park, North Carolina. This is a permanent, full-time position with a salary range of \$67,298 to \$102,907, per annum, commensurate with qualifications. The selected candidate will be eligible for a full benefits package, including relocation expenses, health insurance, life insurance, retirement, and vacation and sick leave benefits. United States citizenship is required.

Presently, the ECD, which consists of two Branches, is a multidisciplinary carcinogenesis program with an EPA staff of 56 employees. The Division focuses its research on issues, assumptions, and uncertainties in cancer risk assessment. The research efforts have created a Division that is a focal point for planning, conduction, coordinating, supporting, and evaluating research to improve cancer risk assessment.

The incumbent will direct and manage the research program of the Biochemistry and Pathobiology Branch. This program includes an intramural research program and postdoctoral/predoctoral programs. Working with other Division Managers, the incumbent provides scientific and managerial leadership of the program, develops the program to meet the evolving needs of the EPA, presents the program to both EPA and non-EPA audiences, develops and manages budgets, supervises the staff, and ensures the highest possible scientific quality and productivity.

The preferred candidate for this position would possess the following qualifications: (1) advanced degree in a toxicological, biological, biochemical, chemical, physical, or medical discipline with at least six years of professional research experience within these areas, (2) experience as a supervisor of a scientific and professional staff, (3) recognized scientific extensive expertise related to environmental carcinogenesis with national and international recognition and (4) proven ability to provide leadership in directing the development and progress of a creative and effective multidisciplinary carcinogenesis research program.

If you are interested in this position, please send a curriculum vitae, and a letter describing your research interests, career goals, and names of three references to: **Environmental Carcinogenesis Division, National Health and Environmental Effects Research Laboratory (MD-68), Attention: BCV, U.S. EPA, Research Triangle Park, NC 27711**. Please respond to this advertisement no later than **June 30, 1999**. After all responses are reviewed, candidates will receive written notice of the next stage of the application process.

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OPENING DATE: MAY 10, 1999 CLOSING DATE: JULY 9, 1999  
ANNOUNCEMENT NUMBER CA-99-0306

The National Cancer Institute (NCI), National Institutes of Health (NIH), is seeking an outstanding world class senior-level scientist to fill the position of Director, Division of Basic Sciences (DBS). The Director, DBS will provide national and international leadership to ensure scientific excellence of the biomedical research in DBS. The Director should enhance the position of the organization as a vanguard in the cancer research field into the 21st Century. The DBS is the largest of the three NCI Divisions which comprise the NCI Intramural Research Program and is the leader of a comprehensive effort to understand cancer through basic investigator-initiated research. The Director is responsible for creating and maintaining an innovative research environment that fosters collaboration between NCI's intramural research investigators and extramural scientists and continually stimulates novel research directed ultimately toward the treatment and prevention of cancer, AIDS and other related diseases. The Director, DBS is also responsible for establishing effective partnerships with academia and industry to assure that innovative technology is developed and is successfully transferred, enhanced, and commercialized. The Director determines immediate and long-range research objectives and directs the implementation of these objectives through the effective utilization of fiscal and other resources. Long-term planning includes expanded research efforts into the areas of developmental biology, cell biology, and molecular cytogenetics as well as the maintenance of innovative, ongoing basic research. The Director ensures that DBS research reflects the highest standards of scientific excellence validated through rigorous peer review.

The DBS is organized into 36 Laboratories, Branches and Programs staffed with approximately 850 personnel positions, 750 Fellowship positions and 130 contract positions supported with an annual budget of approximately \$150 million. The Division's program is located both in Bethesda and Frederick, Maryland. The Division's WEB sites can be accessed at <http://www.nci.nih.gov/intra/intra.htm>. Candidates should be internationally recognized for their scientific accomplishments,

leadership and collaborative capabilities in the area of molecular biology, cell biology, genetics, immunology, biochemistry, and/or other areas of basic studies of cancer, AIDS and related diseases and the application of modern biotechnology to these studies. Candidates must also possess a medical and/or other doctoral-level degree in a biomedical or related field. In addition, candidates must be either a U.S. citizen, a citizen of a treaty-allied country, or a nonresident alien with a valid work visa. Total annual compensation will be commensurate with education and experience and ranges up to \$151,800. Other appointment mechanisms and incentives may apply in individual circumstances based on experience and expertise to increase the salary range up to \$200,000.

Applicants should send a letter expressing their interest in the position; a statement of research interests; a career synopsis and brief biography; curriculum vitae and bibliography; and the names and addresses of five individuals who can be contacted as references. Letters of reference should not be submitted by the applicant. This material should be sent to:

Ms. Brenda Pennix (CA-99-0306)  
National Cancer Institute  
Human Resources Management and Consulting Branch  
6120 Executive Boulevard  
Room 550, EPS  
Rockville, MD 20852

Applications may also be faxed to (301) 402-9333.

If you need additional information, please call Ms. Pennix, NCI Human Resources Management and Consulting Branch at (301) 402-2812.

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

THE NATIONAL CANCER INSTITUTE IS AN EQUAL OPPORTUNITY EMPLOYER.

**Bacterial Pathogenesis Faculty Position**  
**Department of Microbiology and Immunology**  
**The University of Texas Medical Branch**

The Department of Microbiology and Immunology, UTMB, invites applications for a tenure-track position at the Asst./Assoc. Professor level. Applicants should have a M.D. and/or Ph.D. degree and will be expected to develop, or have previously established, an independent research program relating to bacterial diseases of the gastrointestinal tract with emphasis on molecular pathogenesis. Candidates with clinical expertise are encouraged to apply and a joint appointment in the Division of Infectious Disease is possible. Current interdisciplinary strengths include molecular pathogenesis of enteric bacterial infections, host defenses, vaccine development, and investigation of intracellular pathogens. Additional strengths include nationally recognized molecular research on RNA viruses, T-cell activation, and host defenses to microbial pathogens. We offer a competitive start-up package, modern laboratory space, and an interactive environment with excellent opportunities for collaborations with the basic science and clinical departments, the Sealy Centers for Molecular Science and Structural Biology, and the WHO Collaborating Center for Tropical Diseases. Please send a *curriculum vitae*, a summary of past accomplishments, future research plans, and the names, addresses, and telephone numbers of three references to:

**Bacterial Pathogenesis Search Committee**  
**Department of Microbiology and Immunology**  
**The University of Texas Medical Branch**  
**301 University Boulevard**  
**Galveston, TX 77555-1070**

*UTMB hires only persons authorized to work in the United States.*  
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**CORVAS**, a fast-paced biopharmaceutical company, is engaged in the design and development of next-generation therapeutic agents for the prevention and treatment of cardiovascular, cancer and other major diseases. Located in the scientifically stimulating "biotech beach" area of La Jolla, CA, we are currently seeking highly motivated, experienced candidates for the following positions:

**PROTEIN EXPRESSION/FERMENTATION SCIENTIST**

As a member of our Molecular Biology group, you will direct the production of recombinant proteins in microbial systems. Significant experience with fermentation of *Pichia pastoris* is required, and familiarity with the New Brunswick BIOFLO III, IV, and/or 3000 systems is desired. Experience with protein production using other expression systems, such as *E. coli* and/or mammalian systems (e.g., CHO cells), is preferred. Ability to work both independently and as part of a team is a must. Supervisory experience is also preferred.

**PHARMACOLOGIST**

You will conduct *in vivo* experiments related to the evaluation of drug candidates for efficacy, pharmacokinetics, bioavailability and metabolism. Requires a BS/MS in Biology, Pharmacology or related field, 2+ years experience using chronic and acute *in vivo* models, and demonstrated proficiency in general surgical skills including vascular catheterization, blood sampling, BP monitoring, anesthesia, and injection protocols. Knowledge of cell culture, microscopy, *in vitro* assays and computer literacy a plus.

*We also have positions available for:*

**QUALITY ASSURANCE SPECIALIST**  
**MEDICINAL CHEMIST**

For consideration, please send/fax *CV* and letter to: Corvas International, Inc., 3030 Science Park Road, San Diego, CA 92121, Attn: HR; Fax (619) 455-0457. [www.corvas.com](http://www.corvas.com). EOE.

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**CENTER DIRECTOR**

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

The successful candidate will have the D.V.M. or equivalent degree, demonstrated skill in organizing and leading multidisciplinary teams of scientists, and a strong record of personal research accomplishments. A Ph.D. or equivalent degree is highly desirable. This is a Senior Executive Service position with a salary range from \$108K to \$125K, depending on qualifications. *U.S. citizenship required.* For further information about the position please call **Ms. Wilda Martinez at 215-233-6593**. For application procedures, call **Stacy Aldrich at 301-504-1448** or e-mail [saldrich@ars.usda.gov](mailto:saldrich@ars.usda.gov). Applications must be postmarked by July 15, 1999. Previous applicants must reapply in order to be considered.

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OPPORTUNITY EMPLOYER.**



**Plant Physiologist.** Position requires Ph.D. in plant physiology, biochemistry or related field with in-depth knowledge of plant physiology, biochemistry, and enzyme assay development. Major responsibilities will include analyses of plants altered in metabolic or developmental pathways. Should be acquainted with the major methodologies necessary for determining common parameters measured by plant physiologists. Department Code: PTGE-0030.

**Molecular Biologist.** Position requires B.S. degree with significant experience or M.S. degree with proven skills in molecular biology. Standard skills in nucleic acid manipulation, experience characterizing gene transcripts and construction and use of libraries required. Should also have working knowledge of common DNA-related computer programs. Plant experience preferred. Department Code: PTGE-0029.

Both positions require highly motivated individuals with excellent communication and interpersonal skills.

Dow AgroSciences offers an excellent salary/benefits package, individualized scheduling, and a beautiful headquarters location which includes learning facilities, health and fitness programs and equipment, and a nature preserve with walking trails. Indianapolis, Indiana provides all the cultural advantages of a major metro area plus the comfortable hospitality of the Midwest. Interested candidates should send a letter of interest, resume, transcripts and references to:

**Dow AgroSciences LLC**  
**Human Resources Recruiting**  
**(Department Code)**  
**9330 Zionsville Rd.**  
**Indianapolis, IN 46268-1054**

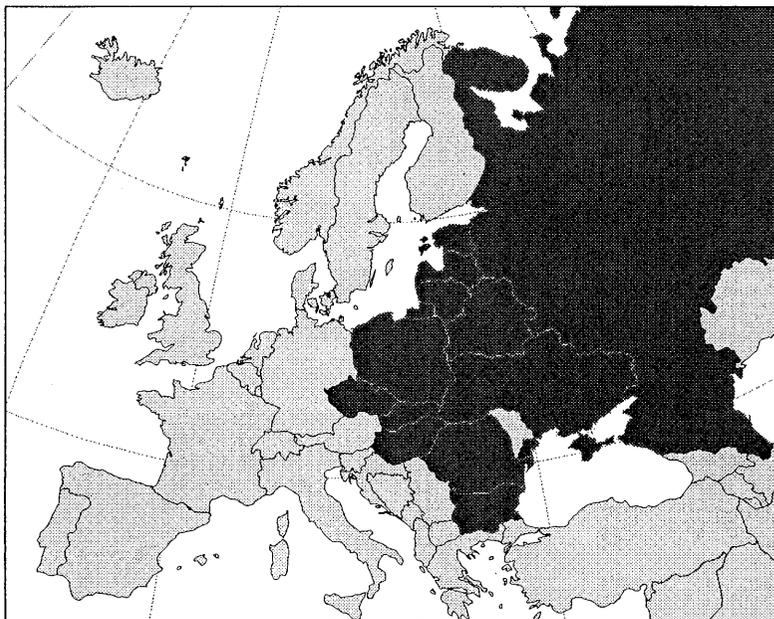
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## Baltics, Central and Eastern Europe, and Former Soviet Union

*The Howard Hughes Medical Institute is accepting applications for biomedical research grants under its International Research Scholars Program. It is expected that approximately 40 grants—each for a term of five years and providing from \$40,000 to \$90,000 annually—will be made. The grant term is anticipated to be from 2001 to 2005.*



**Eligible Countries** The Howard Hughes Medical Institute is accepting applications for international research grants in 12 selected countries: Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, and Ukraine.

**Eligible Scientists** Applicants must:

- ▶ hold full-time appointments at non-profit, scientific research organizations in any one of the eligible countries;
- ▶ have made significant contributions to basic, disease-oriented, or patient-oriented biomedical research;
- ▶ devote most of their professional time to research and teaching;
- ▶ have research careers that are still developing, rather than be in the later phases of a distinguished career;
- ▶ show promise of future contributions to research;
- ▶ provide evidence of their research achievements by listing references for a minimum of three scientific articles published since 1994 in peer-reviewed, English-language biomedical journals;
- ▶ and have no major administrative duties.

Applicants must not be citizens or permanent residents of the United States.

**Eligible Research Areas** Research must be in one of the following broad fields: cell biology and regulation, genetics, immunology, neuroscience, or structural biology. Clinical trials and research on health education, health care delivery, or health care services are not eligible.

**Other Requirements** Applicants must have Web access to apply to the competition and to fulfill reporting requirements if a grant is awarded. Applications will be accepted only through HHMI's Web-based competition system.

Program announcements and the application/competition systems are available on the Web at [www.hhmi.org/international](http://www.hhmi.org/international). All applications must be submitted via HHMI's Web-based competition system by **November 15, 1999**. Awards will be announced in late 2000.

[www.hhmi.org/international/](http://www.hhmi.org/international/) HHMI International Program home page  
[www.hhmi.org/grants/](http://www.hhmi.org/grants/) HHMI Grants home page  
[www.hhmi.org](http://www.hhmi.org) HHMI home page

## MDS PANLABS,

a leading contract research organization located on Seattle's east side, provides R&D services to the pharmaceutical, fine chemicals and biotechnology industries. The Biotechnology Services Division has immediate openings for the following two positions:

### Senior Scientist Molecular Biology (Position 99-2)

The Molecular Biology Unit is seeking an experienced and ambitious individual to join a growing team solving challenging problems in heterologous gene expression and metabolic pathway engineering. The candidate must have a Ph.D. and 4-6 years postdoctoral experience (or equivalent), and a strong record of scientific achievement working with industrial organisms. Relevant industrial experience would be a definite plus. The ideal candidate will have proven capabilities in molecular analysis of gene expression, strain engineering, and the biochemistry of secondary metabolism. An ability to work independently and as part of a group is critical, as are strong interpersonal skills.

### Senior Scientist Biotransformations/Biocatalysis (Position 99-18)

The Biotransformations/Biocatalysis Unit is seeking an experienced and enthusiastic individual to join an interdisciplinary team solving problems in the growing field of biocatalysis discovery and bioprocess development. The candidate must have a Ph.D. and 4-6 years of industrial experience and a strong record of scientific achievement in biocatalysis/biotransformations. The ideal candidate will be trained in synthetic chemistry and experienced in 1) identifying and developing opportunities for using enzymes in organic syntheses and in 2) analytical chemistry (HPLC, NMR and MS). Experience with microorganisms and with management of large databases, such as MS-Access and LIMS, is also desirable. The candidate must be comfortable in a flexible working environment, which includes numerous projects and both independent and team working situations.

Both positions primarily require work at the lab bench, but will also include client contact, so strong communication skills are essential. Submit resume to:

**MDS Panlabs**  
Attn: Human Resources (Position # \_\_\_\_\_)  
11804 North Creek Parkway South  
Bothell, WA 98011-8805  
Fax: 425-487-3787  
Email: [employment@panlabs.com](mailto:employment@panlabs.com)  
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## Pharmacologist

Tularik Inc. is a rapidly growing, privately-held biopharmaceutical company dedicated to the discovery and development of novel therapeutic agents. Our growth has seen the recent completion of a second, state-of-the-art research building on our campus in South San Francisco, further increasing our capacity to provide full, leading-edge research and creative drug discovery. Tularik currently has ongoing projects in the areas of viral diseases, inflammation, hypercholesterolemia, immune disorders, obesity, bacterial diseases, cancer, and orphan nuclear receptors. We currently have an exciting career opportunity for an experienced Pharmacologist with expertise in in vivo models of inflammation and/or immune-modulation.

Working closely with medicinal chemists, molecular biologists and other members of our Pharmacology and Preclinical Development Department, the successful candidate will help identify and characterize drug leads for preclinical and clinical development. Qualified candidates will have a MD and/or Ph.D. in pharmacology, toxicology, physiology or related discipline, along with a minimum of 5 years' experience developing and validating animal models for inflammatory disease and/or immune disorders, and evaluating drug candidates for efficacy, mechanism of action and therapeutic windows, preferably in a pharmaceutical R&D environment.

Tularik offers productive and experienced leadership, employee stock options, a competitive salary and benefits package, and a collaborative, stimulating research environment that recognizes achievement. For consideration, please submit your CV to:

Tularik Inc.,  
Human Resources Dept.  
Position Code PT-SC  
Two Corporate Drive  
South San Francisco, CA 94080  
Fax: (650) 829-4303  
Email: [resume@tularik.com](mailto:resume@tularik.com)



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The Plum Island Animal Disease Center is seeking a permanent full-time Microbiologist or Veterinary Medical Officer to work in the Foot-and-Mouth Disease Research Unit. The candidate will be expected to develop a broad program focusing on the immune response of cattle and swine to foot-and-mouth disease virus infection with the purpose of elucidating humoral and cellular immune mechanisms applicable to vaccination and/or control of foot-and-mouth disease, methods to manipulate the immune response, and investigations of the immunopathogenesis of viral infection. Candidates should have research training and experience focusing on immunology. Experience in bovine or porcine immunology is advantageous but not required.

A Ph.D. is desirable and US citizenship is required. The salary range is \$59,468-\$79,644 per annum plus benefits. PIADC is located approximately 1.5 miles from the east end of Long Island, NY and is accessible by Government ferry from either Orient Point, Long Island or Old Saybrook, CT. For research program information contact **Dr. Peter Mason** at 516-323-2500, ext. 663, or [petermas@asrr.arsusda.gov](mailto:petermas@asrr.arsusda.gov). For complete application instructions, call Dial-a-Vacancy at 301-504-1484 to request vacancy announcement number ARS-D9E-9289, or print it from the internet at <http://www.ars.usda.gov/afm/hrd/resjobs>. All application materials must be postmarked by June 18, 1999.

*USDA/ARS is an equal opportunity employer.*

RPI, a leader in the development of ribozyme-based pharmaceutical products and functional genomics, is currently seeking the following to join our research and development team in Boulder, Colorado:

#### Scientist/Pharmacology

Seeking a Ph.D.-level scientist with at least 2 years of experience to conduct preclinical pharmacokinetic studies of ribozymes. In addition to in vivo techniques, applicant must have expertise with standard biochemical assays used for drug quantitation such as HPLC, CGE or MS. Experience with oligonucleotides and involvement in support of toxicology and pharmacodynamic studies desirable. Must be an independent thinker with the ability to direct projects and interact with scientists from diverse disciplines. Excellent communication skills required. Please refer to Job #017.

RPI offers a competitive salary and an excellent benefits package, including stock options. For consideration, send a curriculum vitae and the names of three references to: Ribozyme Pharmaceuticals, Inc., 2950 Wilderness Place, Job #017, Boulder, CO 80301. Fax: (303) 449-6995. E-mail: [jobs@rpi.com](mailto:jobs@rpi.com)

Visit our Web site at: <http://www.rpi.com>

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## DO SOME GOOD (science)

We seek experienced and motivated scientists with well-documented expertise in both molecular biology and microbiology to develop products that improve healthcare. With an emphasis on teamwork, creativity, and intellectual achievement (publishing encouraged), we are dedicated to providing a challenging and stimulating work environment, and a generous salary/benefits package.

You should be an energetic self-starter who enjoys the challenge of developing and applying new molecular biological technology. Well-documented productivity and integrity; strong organizational, interpersonal, and communication skills required.

#### DIRECTOR OF R&D (job code: DS599)

You should be an experienced, inventive, and versatile scientist with a solid history of success in biotech management. You will direct the scientific effort and manage projects from concept to product. Proven abilities developing molecular genetic methods/products/instrumentation for infectious disease diagnostics are important. Requires Ph.D., 10+ years industry experience.

#### SR. SCI. / SCIENTISTS (job code: SS599)

You should have strong skills in molecular biology and microbiology and proven abilities in conceptualizing, developing and troubleshooting new molecular biological assays. Sr. Scientists must have solid team leadership & project management abilities, and must have demonstrated excellence in product development for nucleic acid-based infectious disease diagnostics. Ph.D. + postdoc required; industry experience helpful.

#### SR. RESEARCH ASSOC. (job code: RS599)

You should have expert molecular biology skills including the ability to independently and efficiently carry out and troubleshoot both standard and novel methods. Excellent microbiological and computer skills are also important. This job also entails lab management responsibilities. M.S. degree or equivalent and 6+ years professional experience in microbiology and molecular biology required, with 2+ years in biotech industry.

**Genomic Profiling Systems** is an exciting, well-financed, Cambridge-based startup company with breakthrough genetic technology for producing a new generation of tools that promise to revolutionize infectious disease diagnostics.

Please submit a resume, one page cover letter, and contact information for 4 references (specifying relationship) to:

Job Code \_\_\_\_\_  
Genomic Profiling Systems, Inc.  
840 Memorial Drive, 4th Fl  
Cambridge, MA, 02139

Or FAX to: 617 547-6060

Or email (text or attached MS Word file) to: [jobs@genprosys.com](mailto:jobs@genprosys.com)

(include last name & job code in BOTH the subj. line of email AND attached filename)



### Postdoctoral Fellowship at NIH HIV Research

A postdoctoral position is available for molecular studies on replication of HIV and related retroviruses. Research projects include the role of host and viral proteins, such as the nucleocapsid protein, in reverse transcription; functional analysis of reverse transcriptase; and investigation of virus assembly. Studies are performed with model systems and HIV-infected cells. Applicants should have a strong background in molecular biology and either protein biochemistry or virology and less than five years of postdoctoral experience. Please send a curriculum vitae, bibliography, and the names and addresses of three references to:

**Dr. Judith G. Levin, Chief**  
Section on Viral Gene Regulation  
Laboratory of Molecular Genetics  
NICHD, Building 6B, Room 216, NIH  
Bethesda, MD 20892  
Fax: (301) 496-0243  
Email: [judith\\_levin@nih.gov](mailto:judith_levin@nih.gov)  
Website: <http://dir.nichd.nih.gov/lmg/svgr/index.htm>

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### ANNOUNCEMENT

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*"I have long been interested in science, and in helping people. During my training, I had a number of clinical experiences which convinced me that I wanted to specialize in immunology at the bench, but still have patient contact."*

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

<http://www.training.nih.gov> and  
<http://lrp.info.nih.gov>



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### Senior Scientist - High Through-Put Screening

This individual will design, plan, conduct and validate receptor binding and functional assays to evaluate proprietary compounds, combinatorial libraries and natural products to support various drug discovery programs. Specific experience in conducting radioligand binding and second messenger assays, and sophisticated computer analysis of data is essential. Direct research experience with High Through-Put Screening and laboratory automation in an industrial setting is required. Experience with molecular biological techniques such as RT-PCR and generation of cell-line expression systems as screening tools is highly desirable.

The successful candidate will have a Ph.D. in Molecular Pharmacology/Biochemistry with postdoctoral experience and three to five years of experience in the pharmaceutical industry.

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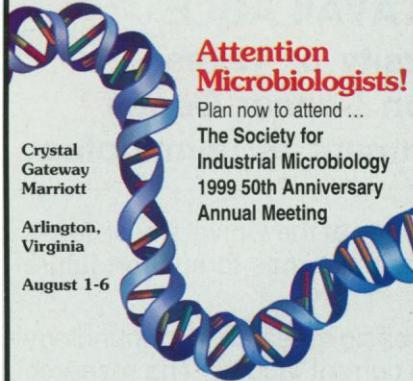
Applications are invited for the newly established David and Janice Katz Postdoctoral Fellowship in Human Genetics at the University of Chicago. This fellowship is designed to provide training to outstanding scientists planning to pursue an independent research career in any area of human genetics. Applicants should have a Ph.D. and/or M.D. in human genetics or a related discipline. The fellowship award provides a competitive stipend and small research fund for the recipient for a period of up to three years. Potential faculty mentors include Drs. Nancy Cox, Soma Das, Anna DiRienzo, William Dobyns, Augustine Kong, David Ledbetter and Carole Ober.

Interested applicants please submit a CV and the names and addresses of three references to: [recruit@genetics.bsd.uchicago.edu](mailto:recruit@genetics.bsd.uchicago.edu) (electronic submissions only by email with Word or WordPerfect attachments). Specifically indicate in the subject line that the application is for postdoctoral fellowship.

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

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...to a breakthrough that will change someone's life.



and I think, while some people work for a living. I spend my days working to make life better.

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Axys Pharmaceuticals, HR Department, (Attn: Job# N99-014-SCI),  
180 Kimball Way, South San Francisco, CA 94080;  
email: [human\\_resources@axyspharm.com](mailto:human_resources@axyspharm.com).



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## POSTDOCTORAL POSITION IN CANCER RESEARCH

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



## AgrEvo

AgrEvo Canada Inc. is a leader in crop production and plant protection in North America. Building on a strong base of market-leading plant protection products, AgrEvo is committed to becoming a total supplier of Crop Production Technology, including hybrid canola and advanced traits delivered through biotechnology. We have a long-term commitment to growth, profit and continual improvement. Our focus is fulfilment of customer needs through innovative research, development, manufacturing, quality products and technologies.

We are currently recruiting for a qualified individual to act as:

## SCIENTIST – CELL BIOLOGIST

(Contract Position for 3 years)

Responsibilities include the establishment of a cereal cell biology group at the AgrEvo Canada Inc. Biotechnology Research Facility in Saskatoon, Saskatchewan. The primary emphasis will be on wheat transformation/regeneration.

Preference will be given to candidates with three to five years experience at the post-doctoral or research scientist level. Experience in project management is desirable. The position requires close interaction with other cell and molecular biologists in the laboratories of Saskatoon and AgrEvo research teams in Europe and a good understanding of cereal genetics and breeding. Good communication skills and the ability to work as part of a team are essential.

Submit résumé and names of three references to: **AgrEvo Canada Inc., Dr. Malcolm Devine, #203 – 407 Downey Road, Saskatoon, Saskatchewan, Canada S7N 4L8. Fax: 306-934-8337 email: [malcolm.devine@agrevo.com](mailto:malcolm.devine@agrevo.com)**

*Only candidates under consideration will be acknowledged.*

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*Making Cancer History™*

**POSITION AVAILABLE**  
**The University of Texas**  
**M. D. Anderson Cancer Center**  
**Chair of the Department of Immunology**

Applications are invited for the position of Chair, Department of Immunology at the University of Texas M. D. Anderson Cancer Center. The new Chair will receive substantial resources to support future growth and development.

Applicants should have an established record of scientific excellence in basic research in immunology and an international reputation that will complement the research of the current faculty. The research program of the department Chair should contribute to the research directions of the departmental faculty in the broad areas of cellular mechanisms involved in immune activation and regulation, the role of host defense mechanisms in carcinogenesis and tumor progression, the molecular mechanisms involved in immune recognition, signal transduction, apoptosis, lymphocyte differentiation and lymphocyte adhesion.

The successful candidate will be expected to assume a leadership role integrating immunology as a discipline throughout the institution.

Interested individuals should submit their C.V. and brief summary of research interests to:

**Dr. William Klein**  
**Chairman, Department of Immunology Search Committee**  
**University of Texas M. D. Anderson Cancer Center**  
**1515 Holcombe Boulevard, Box 113**  
**Houston, Texas 77030**

*An affirmative action/equal opportunity employer. Women and minority candidates are encouraged to apply.*

## Faculty Positions in Biomedical Engineering

The Department of Chemical Engineering at the joint college of engineering between Florida State University and Florida A&M University (FAMU-FSU College of Engineering) invites applications for several tenure-track faculty positions in its newly formed graduate degree programs in Biomedical Engineering. PhD or MD/PhD in Biomedical Engineering or Medical Sciences and related disciplines is required. Rank is open, however, senior appointments should carry a previous record of national distinction in biomedical engineering or related disciplines. Candidates must demonstrate a strong commitment to building both the educational and research components of a new program. Of particular interest are those candidates with strong backgrounds in tissue engineering, metabolic engineering, and intercellular transport processes. The Department recently received a *Special Opportunity Award* from the Whitaker Foundation to help initiate this program. In addition, the Department also supports a new NSF funded NMR/MRI system for molecular transport and microimaging studies, as well as new laboratory space as part of the College's recent space expansion. Strong opportunities exist for interactions with the FSU's Program in Medical Sciences, FAMU Pharmaceutical Sciences, and FSU's Molecular Biology programs. Qualified applicants should send a letter of application, current vita, and names and contact information of three references by August 1, 1999 to Dr. Michael H. Peters, Director Biomedical Engineering, Department of Chemical Engineering, FAMU-FSU College of Engineering, 2525 Pottsdamer St., Tallahassee, FL 32310. *FAMU-FSU is an Affirmative Action/Equal Employment Opportunity employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply.*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY  
AIR POLLUTION PREVENTION AND CONTROL DIVISION  
RESEARCH TRIANGLE PARK, NORTH CAROLINA

**Technology Assessment Expert**  
**Salary Range \$56,951 to \$87,489**

The U.S. Environmental Protection Agency is seeking highly qualified senior scientific/engineering candidates who are recognized experts in assessing technologies which impact global climate change for a position in the Air Pollution Prevention and Control Division of the National Risk Management Research Laboratory. The position requires extensive experience in performing environmental, energy, economic, and performance assessments of technologies which cause, control, and/or prevent emissions of greenhouse gases. The preferred candidates shall have one or more post graduate degrees in disciplines which support aspects of technology assessments.

The successful candidate will conduct independent work and provide expert leadership in a team which develops and utilizes computer models for assessing impacts of current and potential technologies, and which performs scenario evaluations of various technology mixes. In-depth studies of technologies shall investigate: environmental burdens to air, water, and land; efficiency impacts; comparisons and tradeoffs of technology choices; cost implications; market and societal impacts; and other issues which might affect the implementation and success of a technology to reduce greenhouse gas emissions. A broad range of technologies shall be considered (such as end-of-pipe controls, pollution prevention, adaptation, etc.) and multiple economic sectors will be involved. Emphasis will be placed on those technologies which contribute to co-control of other multimedia pollutants. The results will be presented in: refereed journals; national and international high level meetings such as USGCRP, IPCC, workshops, and program reviews. The successful candidate will be responsible for communicating results from the scenario evaluations and will interact with other EPA researchers, EPA management, and other national and international experts.

Applicants must meet U.S. Office of Personnel Management (OPM) qualification requirements, and salary will be based upon qualifications of the candidate. Applicants must be a U.S. citizen. To obtain application materials and for more details contact the **Career America Automated Job Information Line at (912) 757-3000, TDD (912) 744-2299 (hearing impaired), OPM automated jobline (919) 790-2822 or access OPM via the Internet at <http://www.usajobs.opm> or the EPA Homepage at <http://www.epa.gov/cincyjob/>. Check these sources for application due date.**

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

**ASSISTANT OR  
ASSOCIATE PROFESSOR  
PHYSIOLOGY AND PHARMACOLOGY**

The City University of New York Medical School  
The Sophie Davis School of Biomedical Education

Applications are invited for a tenure-track faculty position at the level of Assistant or Associate Professor. The successful candidate will have excellent teaching abilities, expertise in cardiovascular physiology, and actively participate in the teaching of our medical students. Candidates will have a Ph.D. or M.D. degree and postdoctoral experience and be expected to have, or promptly establish, an externally funded research program.

The School has special commitments to increasing the number of physicians from presently under-represented minority groups, to emphasizing the role of primary care, and to training for community-based primary care service to under-served urban areas of New York City.

Applicants should submit a curriculum vitae and the names of three references. A statement of scientific accomplishments and future direction should be provided, as well as a statement about teaching experience and interests.

Salary Range: Assistant Professor \$45,169 - 72,208  
Associate Professor \$55,963 - 83,884.  
(Commensurate with experience).

Applications should be sent by June 30, 1999 to:  
Dr. Stanley Kalsner, Professor and Chair  
Department of Physiology and Pharmacology, PP



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**SENIOR RESEARCH SCIENTIST - DMPK PHARMACOKINETICS**

Your primary responsibility will be to conduct pharmacokinetic and pharmacokinetic/pharmacodynamic analysis of data obtained in the clinical studies of RPR drugs.

This will be accomplished by your participation in the development, implementation and interpretation of pharmacokinetic results from Phase III studies. You will be responsible for the preparation of scientific reports and other required documentation, including NDA submissions. You also will represent the Drug Metabolism/Pharmacokinetics Dept. at local and global project teams and ensure that pertinent information is disseminated to internal departments. You will be given the opportunity to investigate or contribute to new or evolving methods for pharmacokinetic or pharmacokinetic/pharmacodynamic analysis.

To qualify, you should possess a Ph.D. in a scientific discipline or PharmD, with 0-3 years' experience in clinical pharmacokinetics. You also must have knowledge of biology/pharmacology and statistics and be able to contribute to clinical development plans for the global development of drugs. The ability to design, review and implement a clinical pharmacokinetic study and keep abreast of trends/development within pharmacokinetics and pharmacokinetic/pharmacodynamic relationships is essential, as is strong oral/written communication skills.

**SENIOR SCIENTIST - DMPK BIOTRANSFORMATION**

You will assist in the metabolic profiling and characterization of drug candidates as well as developing new methodologies. Ensure control, management and storage of reagents and biological samples in compliance with study protocol, guide various studies (in vitro/in vivo, enzymologic, metabolic, inhibition). Participate in training and transfer of technical skills.

The ideal candidate will possess a Bachelor's with 3+ years' experience and/or M.S. with 0-2 years' experience combined with working knowledge of chromatographic and spectroscopic methodologies, organic chemistry, biochemistry and enzymology. Computer literacy is also required.

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 salary requirement, to: Rhone-Poulenc Rorer, Human Resources, 500 Arcola Road, P.O. Box 5096, Collegeville, PA 19426-0996. Fax: (610) 454-5884. Or e-mail: susan.wilcots@rp-rorer.com We are an Equal Opportunity Employer. Visit our web site: www.rp-rorer.com



**SYMPOSIUM**

**Indiana Molecular Biology Symposium X  
New Perspectives in Insect Biology:  
A Tribute to John H. Law**

Nov. 4 - 7, 1999 at Indiana University

**Keynote Address**

- Michael Ashburner, Cambridge University

**Pattern Formation**

- Sean Carroll, University of Wisconsin
- Nipam Patel, University of Chicago
- Robin E. Denell, Kansas State University
- Thomas Kaufman, Indiana University

**Hormones**

- Peter Cherbas, Indiana University
- Carl Thummel, University of Utah
- Lynn M. Riddiford, University of Washington
- James W. Truman, University of Washington

**Immunity**

- Jules Hoffman, University of Strasbourg
- Fotis Kafatos, EMBL, Heidelberg
- John Law, University of Arizona
- Michael Kanost, Kansas State University

**Signaling**

- Alan Renwick, Boyce-Thompson Institute
- Peter Evans, Cambridge University
- John Hildebrand, University of Arizona
- Alan Nighorn, University of Arizona

**Vector and Parasite Biology**

- Scott O'Neill, Yale University
- José Ribeiro, N.I.H.
- Nancy Beckage, University of California, Riverside

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or contact Ms. Rhea Freeman  
(phone) 812-855-4183 (fax) 812-855-6082

**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.

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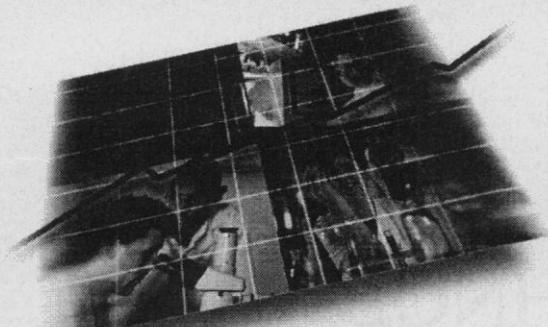


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At Parke-Davis, we not only make significant contributions to scientific research, but to vital organizations striving to make the workplace a truly equal opportunity environment. We also offer specialized programs that help our colleagues balance their careers and family lives. They include options like flextime, job-sharing, telecommuting, and access to child-care and elder-care networks. As we continue to experience rapid growth, we have the following opportunities for world-class scientists to join our state-of-the-art research facility:

### Senior Assistant Scientist/Associate Scientist Job Code: CJM-99298

The ideal candidate will assist in the design, execution and recording of biochemical and cell biology experiments directed towards the discovery and the characterization of novel antiatherosclerotic agents. Duties involve cell culture, primary cell isolation, enzyme assays, ELISA, western blotting and chromatographies including HPLC, TLC and PAGE. Experience in software applications for data analysis (Excel), graphical analysis (e.g. SigmaPlot) and reporting (Word) is expected. Experience in Excel macro programming and ability to operate and maintain HPLC instruments is advantageous. Skills in problem solving, creativity, effective teamwork and communication are desired.

To qualify, you must have a Bachelor's degree in Biochemistry, Biology, Molecular Biology or related area and 3-5 years of full-time laboratory experience in any of these areas.

### Associate Scientist Job Code: CJM-99376

We are seeking an associate level scientist to join our virology program. The ideal candidate should have demonstrated experience in Classical and Molecular Virology. Previous work experience with HIV in a BSL3 facility, and experience in primary cell culture especially blood monocytes and macrophages, and clinical isolates are highly desirable. Some background experience in FACS analysis is also essential for this position. Selected individual is expected to be highly motivated with enthusiasm for creative thinking, problem solving, data analysis and should be willing to work with others in multiple drug discovery projects.

### Senior Associate Scientist/Associate Scientist Job Code: CJM-99383

The ideal candidate is a creative individual with an MS degree in Biochemistry, Cellular Biology, Toxicology or related field with work experience in a laboratory setting. Experience with biochemical techniques and cellular biology is essential. Knowledge of cell culture and high throughput screening/automation techniques is highly desirable.

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

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**NATIONAL INSTITUTES OF HEALTH  
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**NCI-99-1955 & NCI-99-1956  
GS-601/602-13/14**

**Opening Date: May 17, 1999 Closing Date: July 12, 1999**

The National Cancer Institute is seeking qualified applicants for a Program Director position at the Organ Systems Branch (OSB). The OSB manages an extramural multi-disciplinary translational research program termed Specialized Programs of Research Excellence (SPOREs). SPOREs are teams of extramural basic, clinical, and population scientists who focus on a single organ-site cancer and dedicate themselves to translational research that will have an impact on early detection, prevention, diagnosis and treatment of human cancer. The NCI defines translational research as the movement of laboratory discoveries into patient and population research settings or observations in patients and populations back into research laboratories. The incumbent will function as a key member of the OSB extramural staff and will be responsible for the management, planning, implementation, and coordination of breast, ovarian, prostate, lung, or gastrointestinal SPOREs. In addition, the incumbent will be responsible for promoting and facilitating interactions among SPOREs, between SPOREs and the scientific community, and between the SPORE program and other extramural units of the NCI, and the NIH.

**SALARY RANGE AND FRINGE BENEFITS:** Salary ranges from \$58,027 to \$89,142 per annum. Benefits include health and life insurance, retirement, paid holidays, vacation and sick leave. Salary includes locality pay.

**BASIC QUALIFICATIONS:** U.S. Citizenship is required. Applicants must meet the basic experience and educational qualifications for U.S. Government Medical Officer and/or Health Scientist Administrator positions. In order for qualifications to be validated and considered, it is mandatory that you submit the following with your application: a) an undergraduate and graduate transcript or course list which includes grades and semester hours received per course for all courses; b) a current curriculum vitae, and c) a description of your proficiency in the following Knowledge, Skills and Abilities (KSAs):

- 1) Knowledge of Federal Grant application, review and management process, including site visit planning, organization and execution.
- 2) Knowledge of basic, clinical and/or population cancer research.
- 3) Ability to plan, develop and evaluate research programs, including the formulation of program objectives and goals and assessing research programs.
- 4) Ability to establish and maintain professional relationships with scientists in academia, industry and government.
- 5) Ability to communicate scientific information orally and in writing.

**APPLICATION PROCEDURES:** The NCI recruitment bulletin for this position contains complete application procedures and lists all mandatory information which you must submit in your application. To obtain the recruitment bulletin, call 1-800-728-JOBS (for local calls, 301-594-2953). When prompted, enter the "Fax ID Number" 1881. You will be prompted for your fax machine number. If you have any questions on qualification requirements or application procedures, or if you wish to obtain a position description or other information, please call (301) 402-2812.

Please submit your resume, SF-171 Application for Federal Employment or OF-612 Optional Application Form by the closing date to:

**NATIONAL CANCER INSTITUTE  
NATIONAL INSTITUTES OF HEALTH  
HUMAN RESOURCE AND CONSULTING BRANCH  
6120 Executive Boulevard, MSC 7211  
Executive Plaza South, Suite 550  
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Albert H. Teich, Stephen D. Nelson, Celia McEnaney, and  
Tina M. Drake, editors

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

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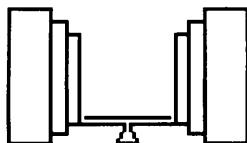
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Applicants should send curriculum vitae, statement of research interests and experience, and names of three references to: Dr. Kuo-Fen Lee, The Salk Institute, 10010 North Torrey Pines Road, La Jolla, CA 92037; Email: klee@salk.edu

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Working in a dynamic, matrixed environment, you will develop new capacities for molecular detection of viruses and other adventitious agents for GLP/GMP use. Quantitative and qualitative assays will be used for modeling studies and to assess product quality. Requirements are a PhD in Biology or relevant life science, preferably with foundation in Molecular/Cellular Virology, 1+ years industry experience or 3+ years related academic work, and proven ability to develop molecular assays for virus detection. Experience working in a GLP/GMP environment is desirable.

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## FACULTY POSITION BIOMEDICAL ENGINEERING UNIVERSITY OF ARIZONA

The Biomedical Engineering Interdisciplinary Program of the University of Arizona invites applications for a tenure-eligible ASSISTANT PROFESSOR POSITION in Biomedical Engineering. This new faculty position has been established as part of a Whitaker Foundation Biomedical Engineering Special Opportunities Award. Candidates must have a Ph.D. or equivalent degree, and an engineering or scientific background with an emphasis on biomedical implants and imaging. Preference will be given to those applicants with a research emphasis in tissue engineering. The successful candidate will have a primary appointment in Biomedical Engineering with opportunities for secondary appointments in the College of Medicine, College of Engineering and Mines and the College of Sciences. Responsibilities include teaching in the core biomedical engineering curriculum. Interested candidates should provide a complete curriculum vitae, a description of research interests, copies of three publications and names and addresses of at least three references. Applications should be sent to: Dr. Stuart Williams, Chair, Biomedical Engineering Program, 1501 N. Campbell Ave. University of Arizona, Tucson, AZ 85724; E-mail: [skwill@u.arizona.edu](mailto:skwill@u.arizona.edu). Web site: [www.ahsc.arizona.edu/bmeidp/](http://www.ahsc.arizona.edu/bmeidp/). Applications will be reviewed as received which will continue until the position is filled.

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## FACULTY POSITIONS IN MACROMOLECULAR CRYSTALLOGRAPHY AT CORNELL

The newly organized Department of Molecular Biology and Genetics at Cornell (a fusion of the Section of Biochemistry, Molecular and Cell Biology with the Section of Genetics and Development) intends to hire two tenure-track ASSISTANT PROFESSORS who use x-ray crystallography to study macromolecular structure. Applicants should have outstanding research credentials and an interest in teaching. The successful applicants will benefit from and enrich the biological expertise of the Department, and also should expect close association with members of the newly organized Department of Chemistry and Chemical Biology. The entire Cornell molecular structural community benefits from the proximity of the Chess synchrotron source, and the potential of its further development for research at Cornell. Applicants should send a description of research interest, a CV, and three letters of reference to the BMG Search Committee, Biotechnology Building, Cornell University, Ithaca, NY 14853. We will begin to evaluate applications on September 1, 1999 and will continue to entertain applications until the positions are filled. Cornell is an equal opportunity/affirmative action employer.

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We are looking for a recent or soon to be Ph.D. scientist trained in biochemistry, pharmacology, and/or lipid metabolism to dissect the role of lipid pathways in immune cell physiology and in vivo models of inflammation. Training in cellular immunology or cellular biology and tissue culture is required and training in arachidonic acid metabolism is advantageous. Please direct CV's with a list of 3 references and a cover letter detailing your experience and scientific interests to Dr. Philip Needleman, Senior Vice President and Chief Scientist and Dr. Catherine Tripp, Senior Research Scientist.

We offer an outstanding competitive compensation and benefits package. For consideration, please send your resume to: The Monsanto Company, Job Code: PD-CT, 700 Chesterfield Pkwy, Mail Code: BB5B, Chesterfield, MO 63198; Fax: 314/737-6419.

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## ASSOCIATE DIRECTOR FOR EARTH AND ENVIRONMENTAL SCIENCES

Lawrence Livermore National Laboratory is seeking an Associate Director to lead its Earth and Environmental Sciences Directorate. The successful candidate will be responsible for developing and managing a diverse portfolio of highly interdisciplinary research and technology-development programs in the earth and environmental sciences.

The Associate Director manages and provides scientific leadership for a staff of over 250 employees who carry out research, development, and demonstration projects in climate change, geosciences, and ecological sciences; waste management; environmental characterization, restoration and monitoring; and risk assessment. This portfolio currently has budget of approximately \$50M.

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Current LLNL projects in Earth and Environmental Sciences' include:

- Field-scale demonstrations of new subsurface cleanup technologies
- Terascale computer modeling of global climate
- Development and demonstration of alternatives to incineration of wastes
- Assessments of the effects of seismic and other natural hazards
- Real-time tracking and prediction of atmospheric plumes of radionuclides and chemicals
- Characterization and cleanup of contaminated Pacific atolls
- Field and computational experiments on the thermal hydrology of the proposed Yucca Mountain repository
- Development of new applications of accelerator-based mass spectrometry to the biosciences, geosciences, and material science

U.S. citizenship and the ability to obtain a DOE "Q" clearance are required. Interested candidates should send a curriculum vitae to: University of California, LLNL, Attn: Mary Anne Holman, L-725, Dept. AJSC5L9DO, P.O. Box 5510, Livermore, CA 94551. Candidate nominations are welcome. Email should be directed to: [adees-search@llnl.gov](mailto:adees-search@llnl.gov).

Lawrence Livermore National Laboratory is a U.S. Department of Energy national laboratory operated by the University of California. The Laboratory's mission is to ensure national security and apply science and technology to the problems of our time. LLNL is an equal opportunity employer with a commitment to workforce diversity.

Visit our Web site at <http://www.llnl.gov>

University of California  
 **Lawrence Livermore  
National Laboratory**



Molecumetics Ltd. is located in Bellevue, WA and is an emerging drug discovery company focusing on the synthesis of orally active compounds for the treatment of cardiovascular, inflammatory and metastatic diseases. We are currently seeking qualified applicants for the following positions:

### Senior Scientist, Biology - Ph.D.

Minimum of three years' postdoctoral experience with strong background in molecular biology and signal transduction. Experience in development of high throughput screening using cell-based assays is preferable. Qualified individuals will work independently within the discovery biology group designing and implementing primary and secondary molecular and biochemical assay systems to discover and analyze potential drug candidates. Refer to Job No. 1008SS-BI/S.

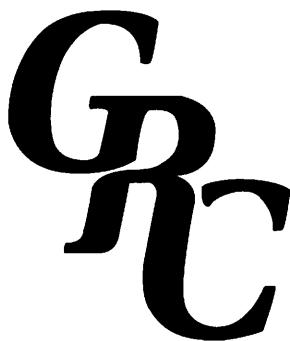
### Bioinformatics - Ph.D./M.S.

Degree in medical/biological sciences. Extensive research experience in using bioinformatics tools and public databases is essential. You will integrate multiple sources of information (medical literature, external databases, bioinformatics tools, homology models and small molecule proprietary databases) to assist a multidisciplinary team in drug discovery and target identification/validation. Must have knowledge of medical/biochemical gene pathways and functions and an extensive understanding of programming and sequence analysis concepts. Must be a team player and have excellent communication skills. Refer to Job No. 1007MS-BI/S.

### Research Associate - M.S./B.S.

Assay development. Join a growing drug discovery effort in molecular pharmacology assay development. In support of drug discovery programs, the successful candidate will develop and validate cell-based functional assays and maintain transformed cell lines. Requires BS/MS degree in microbiology, cell biology, molecular biology, pharmacology or a related field; computer proficiency; effective communication; strong team participation; and excellent sterile tissue culture techniques. Molecular biology experience an asset. Refer to Job No. 1099AD/S.

Immediate eligibility to work in the US required for any position. Refer to job number and forward resume to: **Administrator, Molecumetics, 2023 120th Avenue NE, Bellevue, WA 98005 or [mcwhisk@molecumetics.com](mailto:mcwhisk@molecumetics.com)** An equal opportunity employer m/f/d/v.



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

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Apply directly from the web! Check it out now, Conferences fill up fast!



**New Conference just added to the summer schedule!**

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



## Your Contributions *Matter*

What really matters is the quality of health care that we can deliver by working together as a team. With more than 30,000 dynamic employees operating in over 100 countries, Pharmacia & Upjohn is able to develop some of the most advanced and effective medicines in the industry. Our Kalamazoo, Michigan research facility is committed to discovering innovative therapeutic agents to treat Infectious Diseases and Central Nervous System Diseases. Our research philosophy values creativity, scientific rigor, teamwork, and personal/professional satisfaction. Our Protein Science Department is seeking two associate scientists (MS/BS level) to join our team in Kalamazoo, MI.

### RESEARCH ASSOCIATES (MS/BS) •Protein Science•

One individual will work on glycosylation-related drug targets, with a current focus on antifungal therapeutics. This candidate will be involved in purification, cloning, engineering and expression of target molecules, design of assays for screening of chemical libraries and development of cell-based assays for validation of drug targets. **Position #990077**

The second successful candidate will be responsible for purifying and characterizing native and recombinant proteins, developing robust enzyme assays and performing kinetic analyses. **Position #980589**

Both positions require a BS/MS degree, 2-5 years research experience and a strong background in protein purification; experience with radiolabeled compounds is desirable.

For confidential consideration, please send your resume to: Pharmacia & Upjohn, Position #\_\_\_\_\_, Recruiting, 5003-24-001, 7000 Portage Road, Kalamazoo, MI 49001. FAX: 616-833-9655. E-mail: [recruit@am.pnu.com](mailto:recruit@am.pnu.com) (no attachments please). An equal opportunity employer, we value a diverse combination of ideas, perspectives, and cultures.



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ICRISAT

## DIRECTOR GENERAL International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

ICRISAT, one of the sixteen Centres of the Consultative Group on International Agricultural Research (CGIAR), with headquarters in Patancheru, near Hyderabad, Andhra Pradesh, India, wishes to recruit an internationally recognized scientist and research manager as its next Director General.

ICRISAT has global and regional mandates for important food crops and farming systems in the semi-arid tropics and has agricultural research facilities and activities in Ethiopia, Kenya, Malawi, Mali, Niger, Nigeria, and Zimbabwe, as well as its headquarters in India. Candidates must possess:

- exceptional leadership qualities, vision, and managerial skills;
- research experience and demonstrable effective research management—preferably in the semi-arid tropics;
- recognized advanced qualifications in agricultural science;
- demonstrated skills in working in partnership with policy-making bodies at the national and international levels, and in attracting financial support from donor communities;
- outstanding communication skills, both verbal and written, in English, with similar attributes in French a significant advantage.

*Additional information about this position can be obtained from the address cited below, or by visiting the ICRISAT web site: [www.cgiar.org/icrisat](http://www.cgiar.org/icrisat). ICRISAT is an equal opportunity employer and encourages women candidates to apply.*

**Please send your curriculum vitae and names of three referees by July 5, 1999, to: Secretariat, ICRISAT DG Search Committee, c/o IDRC, 250 Albert Street, P.O. Box 8500, Ottawa, Ontario, Canada K1G 3H9; Telephone: (613) 236-6163 (x2096); Fax: (613) 235-6391; E-mail: [icrisearch@idrc.ca](mailto:icrisearch@idrc.ca)**

**DANA-FARBER CANCER INSTITUTE  
HARVARD MEDICAL SCHOOL**

**Postdoctoral Research  
Opportunities in T-cell  
Immunology**

The Department of Cancer Immunology and AIDS at the Dana-Farber Cancer Institute seeks to fill several positions at the postdoctoral level for studies on T-cell development and function using molecular and/or cellular approaches. A joint appointment will be held in an appropriate department of the Harvard Medical School. Well-qualified (M.D., Ph.D., M.D./Ph.D.) applicants should submit a curriculum vitae, bibliography, a brief statement of research interests and the name, address and phone number of three referees to:

**Harvey Cantor**

**Department of Cancer Immunology & AIDS  
Dana Farber Cancer Institute**

44 Binney Street  
Boston MA 02115

**e-mail: aa@dfci.harvard.edu**

*DFCI/HMS is an Equal Opportunity/Affirmative  
Action Employer. Women and minorities are  
strongly encouraged to apply.*

**DIRECTOR**

**McKusick - Nathans Institute of  
Genetic Medicine**

The Johns Hopkins University School of Medicine is seeking an exceptional individual to lead our Institute of Genetic Medicine. Applicants should have evidence of leadership qualities and demonstrated outstanding abilities in research, teaching, clinical care, and administration.

Please send letter of application, curriculum vitae and bibliography to:

**Edward J. Benz, Jr., M.D.  
Chair, Institute of Genetic  
Medicine Search  
c/o Office of the Dean**

**Johns Hopkins University  
School of Medicine  
720 Rutland Avenue, SOM 100  
Baltimore, MD 21205-2196**

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# Faculty Positions Integrative Physiology

The Department of Physiology and Biophysics at Mount Sinai School of Medicine is seeking outstanding candidates for tenure-track positions. Successful candidates will use modern techniques to address fundamental problems in any area of physiology and biophysics within the context of an integrated biological system. They will be expected to establish externally-funded research programs, and to contribute to the graduate and medical educational programs of the department. The academic rank is open, from assistant professor to full professor, with ample resources commensurate with rank and experience.

**Mount  
Sinai**

The Department of Physiology and Biophysics includes programs in Theoretical & Molecular Biophysics, Structural Biology, Sensory Control Mechanisms & Development, Integrative Neuroscience, and Cellular Neurophysiology & Neural Plasticity. Our diverse interests are enhanced by productive interactions among investigators working in these various areas. More information is available at: <http://www.mssm.edu/physbio/>

Mount Sinai School of Medicine is in the midst of a major expansion of basic research. Major interdepartmental recruitment efforts are underway in several areas of modern biology that will complement and strengthen our own department. These include Neurosciences, Genomics & Bioinformatics, Structural Biology, and Signal Transduction. Mount Sinai provides a superior research environment that includes modern core facilities and a new research building that has nearly doubled the research space in the institution.

For consideration, send C.V., three letters of support, a summary of research accomplishments and future research plans to:  
**Drs. Margolskee & Kaplan, Co-Chairs, Integrative Physiology  
Search Committee, Department of Physiology & Biophysics, Box  
1677, One Gustave L. Levy Place, New York, NY 10029-6574.**

**Robert F. Margolskee, M.D., Ph.D.**

Associate Professor

Depts. of Physiology & Biophysics,  
Pharmacology

Associate Investigator

Howard Hughes Medical Institute  
[margolskee@msvax.mssm.edu](mailto:margolskee@msvax.mssm.edu)

**Ehud Kaplan, Ph.D.**

Jules & Doris Stein RPB Professor

Depts. of Ophthalmology,  
Physiology & Biophysics

Mount Sinai School of Medicine

[kaplane@rockvax.rockefeller.edu](mailto:kaplane@rockvax.rockefeller.edu)

We are an equal opportunity employer fostering diversity in the workplace.

**Mount Sinai School of Medicine**

**POSITIONS OPEN**

**RICE UNIVERSITY  
DEPARTMENT OF BIOCHEMISTRY  
AND CELL BIOLOGY**

Rice University seeks a **POSTDOCTORAL INSTRUCTOR** to participate in a two-year experimental program in science education for freshmen who intend to major in the biosciences or related professional fields. This person will coordinate and teach a one-credit course in which weekly discussion will be held to elucidate the relevance to the biosciences of current material in the parallel introductory chemistry, mathematics, and physics courses. The teaching load will be one course per semester with multiple sections. The departmental affiliation will be in biochemistry and cell biology. The position includes membership in the Center for the Study of Science and Technology, which, together with the Dean of Natural Sciences, is sponsoring this project. Salary, \$30,000 per year plus benefits.

Please send a letter of application, a curriculum vitae, three letters of recommendation, a brief statement of career goals, evidence of teaching expertise, and a sample article to: **Rachel S. Miller, Office of the Dean of Natural Sciences MS-102, Rice University, P.O. Box 1892, Houston, TX 77251.** Deadline 1 July 1999.

*Rice University is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR  
COLUMBIA UNIVERSITY  
DEPARTMENT OF PHARMACOLOGY**

Applications are invited for tenure-track positions at the Assistant Professor level in the Department of Pharmacology. Successful candidates are expected to establish independent research programs that utilize contemporary techniques of molecular biology or computational methodology. Areas of interest include, but are not limited to, the molecular biology and biochemistry of signal transduction pathways, computational approaches to protein structure/function, and ion channel regulation and expression. A Ph.D. or M.D. and at least two years of postdoctoral research are required. Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references to: **Dr. Robert S. Kass, Professor of Pharmacology (in the Center for Neurobiology and Behavior) and Chairman, Columbia University, 630 West 168th Street, PH 7West 318, New York, NY 10032.**

*Columbia University is an Equal Opportunity/Affirmative Action Employer.*

**SCIENTIST POSITIONS**

OriGene Technologies Inc. is a genomics company located in Rockville, Maryland. We are seeking qualified applicants for the following positions:

**MOLECULAR ENZYMOLOGIST—PH.D.**

Minimum of three years of postdoctoral experience in microbiology and enzymology. Molecular biology and protein chemistry experience required.

**BIOINFORMATICS—PH.D./M.S.**

Experience in using bioinformatics tools and public databases required. You will integrate various biological databases to facilitate gene discovery.

Please send curriculum vitae and three references to: **James A. Riley, OriGene Technologies Inc., 6 Taft Court, Suite 300, Rockville, MD 20850.**

Emory University Department of Gynecology and Obstetrics is seeking a **RESEARCH ASSOCIATE** in the division of research. The candidate must have a Ph.D., with three or more years experience in immunological and *in situ* hybridization techniques. *Preference will be given to applicants with U.S. permanent residency.* Please submit your curriculum vitae and the names and addresses of three references to: **Dr. Sampath Parthasarathy, Department of Gynecology and Obstetrics, Emory University, 1639 Pierce Drive, Atlanta, GA 30322.** *Emory University is an Equal Opportunity Employer.*

**POSITIONS OPEN**



**DIRECTOR OF CONSERVATION SCIENCE  
INTERNATIONAL PROGRAMS**

The Nature Conservancy seeks a Ph.D. scientist in conservation biology, natural resource management, ecosystem ecology, or a related field to manage a team of Conservation Ecologists, Program Managers, and Biodiversity Information Specialists to ensure excellence in site and multisite conservation. Director responsible for providing science services to operating divisions, building networks of resources, and identifying sites to maximize biodiversity conservation impact. Spanish required. Based in Arlington, Virginia. Projects in Latin America and Asia-Pacific. For detailed job description see **website: www.tnc.org** or contact **e-mail: lprece-gon@tnc.org**. Submit application by July 15, 1999, to: **Brad Northrup, The Nature Conservancy, 4245 North Fairfax Drive, Arlington, VA 22203.**

AlphaVax Human Vaccines, Inc., has an immediate opening for the position of **RESEARCH SCIENTIST/SENIOR RESEARCH SCIENTIST**. The company is seeking an individual with experience in process and product development, including cGMP production of vaccine or biological products. A Ph.D. in microbiology, virology, biochemistry, or related field with three-plus years or an M.S. with six-plus years of industry experience is required. The successful individual will have a key role in late-stage preclinical development of candidate vaccines.

AlphaVax Human Vaccines, Inc., based in Durham, North Carolina, near Research Triangle Park, has been established to commercialize the proprietary AlphaVax vector system, an innovative vaccine delivery technology. For a more detailed overview please visit our **website: www.alphavax.com**. AlphaVax offers a competitive salary and benefits package. Please send your curriculum vitae with cover letter to: **Human Resources, AlphaVax Human Vaccines, Inc., 710 West Main Street, Durham, NC 27701. FAX: 919-688-7396; e-mail: jobs@alphavax.com.** *AlphaVax is an Equal Opportunity Employer.*

**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.*

University of Florida seeks an **ASSISTANT/ASSOCIATE PROFESSOR** and **CHIEF** position in the Department of Medicine, Division of Internal Medicine. M.D. degree, Board-certified/Board-eligible in internal medicine. This position will be responsible for the administrative duties of the Division of Internal Medicine and patient care in the inpatient and outpatient clinics. There will also be teaching responsibilities of the Residents and medical students. Salary and benefits commensurate with experience. Recruiting deadline June 17, 1999. Anticipated starting date July 19, 1999. Please respond with curriculum vitae to: **Dr. Richard Davidson, Associate Professor, Box 100277, JHMHC, Gainesville, FL 32610.** *An Equal Opportunity/Affirmative Action Employer.*

**POSITIONS OPEN**

**NEUROSCIENCE**

The Department of Pediatrics of the University of Pennsylvania School of Medicine at the Children's Hospital of Philadelphia is recruiting full-time **NEUROSCIENCE RESEARCHERS** with a focus on one of the following areas: attention deficit-hyperactivity disorder, autistic spectrum disorders, traumatic brain injury, or communications disorders. Preference given to applicants with focus on genetics, underlying pathophysiology, or treatment. Candidates should have Ph.D. and/or M.D. degree and be qualified for appointment as **ASSOCIATE PROFESSOR** or **PROFESSOR** in the Standing Faculty with tenure at the University of Pennsylvania School of Medicine. Applicants should demonstrate a strong funding and publishing history as well as a solid record of building a research team and nurturing younger scientists. Successful candidates will enjoy full access to all clinical and research resources of The Children's Hospital of Philadelphia and the University of Pennsylvania School of Medicine. Interested applicants should submit their curriculum vitae and a brief statement of their research program to: **Marc Yudkoff, M.D., Chief, Division of Child Development and Rehabilitation Medicine, The Children's Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Philadelphia, PA 19104-4399. E-mail: yudkoff@email.chop.edu.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**ASSISTANT/ASSOCIATE PROFESSORSHIP  
DEPARTMENT OF PHARMACOLOGICAL  
AND PHYSIOLOGICAL SCIENCE  
Saint Louis University Health Sciences Center**

Saint Louis University, a Catholic Jesuit Institution dedicated to education, research, and health care, is seeking applicants for a faculty position in the Department of Pharmacological and Physiological Science at Saint Louis University School of Medicine. The position is a tenure-track appointment at the Assistant or Associate Professor level. We offer an environment rich in senior-level scientific experience, start-up funds, laboratory space, and a record of highly successful and continuing extramural research funding. Preference will be given, but not restricted, to individuals with demonstrated experience in the application of modern techniques in research of the nervous or endocrine systems. Interested persons should send a curriculum vitae, three letters of reference, and a description of research interests and objectives to:

**Dr. Thomas C. Westfall  
Professor and William Beaumont Chair  
Department of Pharmacological and  
Physiological Science  
Saint Louis University School of Medicine  
1402 South Grand Boulevard  
St. Louis, MO 63104**

*Saint Louis University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**NATIONAL CANCER INSTITUTE**

A **RESEARCH FELLOW** position is available immediately to conduct studies on the molecular biology of complex diseases with emphasis on cancer and infectious agents. The laboratory is currently studying variants in genes involved in cancer and HIV infection, developing single-nucleotide polymorphisms (SNPs) in candidate genes, and high-throughput genotyping methods. Applicants must have a Ph.D. and/or M.D. with a strong background in molecular genetics. *The position is open to U.S. citizens and foreign nationals and the duration is up to five years.* Send curriculum vitae and names of three references to: **Michael Dean, Ph.D., Chief of Human Genetics Section, Laboratory of Genomic Diversity, Building 560/Room 21-18, P.O. Box B, NCI-Fredrick Cancer Research and Development Center, Frederick, MD 21702-1201. FAX: 301-846-1909.** *NIH is an Equal Opportunity Employer.*



**POSITIONS OPEN**

**TENURE-TRACK POSITIONS  
DEVELOPMENTAL BIOLOGIST (1)  
AND TUMOR BIOLOGIST/  
MOLECULAR ONCOLOGIST (1)**

Center for Biologics Evaluation and Research, FDA, seeks two individuals with Ph.D. and/or M.D., minimum several years of postdoctoral experience, and record of scientific productivity. Candidates will establish independent research programs as described below and participate in formulation of FDA policy and review of product applications. Positions located on NIH campus (Bethesda, Maryland), with new laboratory facilities, and state-of-the-art animal quarters with excellent veterinary support. Investigators will be supported with intramural funding. Send curriculum vitae, names of three to five references, and statement of research to respective division. *U.S. citizens or permanent residents only.*

**Developmental Biologist.** Position is in the Division of Cellular and Gene Therapies. Responsibilities include leading a research program, policy work, and review of cellular and gene therapy applications, including approaches based on stem cell or nuclear transfer technology, tissue engineering, and assisted reproduction. Expertise and research relevant to these areas (e.g., cell fate specification, pattern formation, assisted reproduction, and/or biology of pluripotent stem cells, particularly in mammalian models) preferred. Apply to: **Division of Cellular and Gene Therapies Search, 1401 Rockville Pike, HFM-527, Rockville, MD 20852-1448. E-mail: epsteins@cber.fda.gov.**

**Tumor Biologist/Molecular Oncologist.** Position is in the Division of Monoclonal Antibodies. Responsibilities include leading a research program, contributing to policy development, and review of submissions for monoclonal antibodies and other recombinant products used in experimental clinical applications, including cancer treatment and prevention, diagnosis, and tumor imaging technologies. Expertise and research relevant to these areas (e.g., tumor biology and/or immunology, metastatic processes, oncogenes, tumor suppression) preferred. Apply to: **Division of Monoclonal Antibodies Search, 1401 Rockville Pike, HFM-564, Rockville, MD 20852-1448. E-mail: bonvini@cber.fda.gov.**

**FISHERY SCIENTIST  
NATIONAL MARINE FISHERIES SERVICE**

National Oceanic and Atmospheric Association (NOAA) National Marine Fisheries Service seeks Fishery Scientist/Ecologist as **CHIEF** of Salmon Analysis Branch (\$71,000 to \$93,431), Santa Cruz/Tiburon Laboratory to lead team of Population Modelers, Ecologists, Statisticians, and Economists, engaged in research to conserve and restore endangered salmon in California.

Duties include research; program planning, development, and coordination; participation in policy recommendations. See **website: www.usajobs.opm.gov/** for more information. Ph.D. or equivalent and must be U.S. citizen. Apply to: **National Oceanic and Atmospheric Association Human Resources, 7600 Sand Point Way N.E., Seattle, WA 98115, Attn: W/NMF/990199.abc, postmarked NLT June 4, 1999. Department of Commerce is an Equal Opportunity Employer.**

**CELL BIOLOGIST**

A position with long-term support is available immediately for a Cell Biologist in the Laboratory of Lung Biology, Georgetown University. The position involves work to understand cellular and molecular aspects of lung formation (*Nature Medicine* 3:675, 1997). *The applicant must be a U.S. citizen or permanent resident.* Experience in tissue culture required, experience with *in situ* hybridization and electron microscopic immunolocalization is highly desirable. Please send curriculum vitae, bibliography, and three letters of references to: **Dr. Donald Massaro, FAX: 202-687-8538; e-mail: massarod@gusun.georgetown.edu.**

**POSITIONS OPEN**

**DRUG ABUSE RESEARCH INVESTIGATOR**

Applications are invited for an experienced scientist to establish a Drug Abuse Program at North Carolina Central University (NCCU). As Program Director you will have a unique opportunity to stimulate the development of research on the etiology and/or molecular biology of drug abuse and addiction. The University's multidisciplinary, interinstitutional program will be located in the new 40,000-square foot Biomedical/Biotechnology Research Institute (BBRI). This state-of-the-art, multilaboratory facility already houses NCCU's Cardiovascular Disease Research Program, offering a range of research and research-related resources. These include a Molecular Sciences Core Facility; common user equipment rooms; a Visualization and Imaging Laboratory; a modern animal facility; and a server dedicated to meet the computational and networking needs of NCCU scientists. Through individually initiated research grants and funding from a variety of other sources, the BBRI is already playing an active role in strengthening the research capacity of NCCU.

The successful candidate will serve as Principal Investigator (PI) of NCCU's Drug Abuse Program, which is awarded through a cooperative agreement with the National Institute on Drug Abuse (NIDA). This is a multiple-year grant dedicated to support drug abuse research. As PI you will be expected to provide intensive training experiences for students, and forge collaborations with academic institutions and the private sector. The growing number of alliances between the BBRI and research institutions, agencies, and corporations in the Research Triangle Area and state will afford the PI an unusually high probability for long-term success.

Applicants considered for the position must hold a Ph.D. and/or M.D. with a proven record of sponsored research program management, and qualify for a position in one of the basic science departments at the level of Associate Professor or Professor. Additional requirements include demonstrated administrative and scientific leadership abilities; a record of professional accomplishments and publications on drug abuse research in peer-reviewed journals; teaching experience at the undergraduate and/or graduate level; and an extensive record of research funding.

Review of applicants will begin in June and will continue until the position is filled. Applicants are asked to submit a curriculum vitae, a description of research interests, and three letters of reference to: **Dr. Ken R. Harewood, Director, Biotechnology/Biotechnology Research Institute, North Carolina Central University, 1801 Fayetteville Street, Durham, NC 27707. North Carolina Central University is a constituent institution of the University of North Carolina System and an Equal Opportunity/Affirmative Action Employer. NCCU complies with the Immigration Reform and Control Act of 1986.**

**NEUROIMMUNOLOGY FELLOWSHIP**

One-year, renewable position for a Ph.D., to study mechanisms of central nervous system inflammatory demyelination in multiple sclerosis. To include studies on T cell costimulation, antigen presentation, production of recombinant proteins, the role of lipids in inflammation and/or identification of antigenic epitopes and T cell receptor usage. Techniques include cell culture, flow cytometry, Eli-spot, RT-PCR, SSCP, and cloning. Multiple collaborations available. Interested persons should contact: **Dr. John Trotter, The Barnes-Jewish MS Center and the Washington University Medical Center, Box 8111, 660 South Euclid Avenue, St. Louis, MO 63110. Telephone: 314-362-3293; FAX: 314-747-1345; e-mail: trotterj@neuro.wustl.edu.**

**POSTDOCTORAL POSITIONS** are available to study molecular mechanisms of autoimmunity and T cell tolerance, and gene therapy of autoimmune diseases (arthritis and encephalomyelitis) (*J. Clin. Inv.* 100:1951, 1997). Experiences in apoptosis using molecular biology techniques are desirable. Send curriculum vitae to: **Dr. Youhai Chen, University of Pennsylvania School of Medicine, BRB-II Room 511, 421 Curie Boulevard, Philadelphia, PA 19104-6160. E-mail: yhc@mail.med.upenn.edu.**

**POSITIONS OPEN**

**CENTER FOR MOLECULAR MEDICINE  
AND GENETICS  
WAYNE STATE UNIVERSITY  
Genetics of Prostate Cancer**

Center for Molecular Medicine and Genetics at Wayne State University has allocated significant laboratory space, salary support, and generous start-up funds for recruitment of an outstanding individual in the field of genetics of prostate cancer. Wayne State University has created a multidisciplinary Center of Excellence in Prostate Cancer and also funded a Human Genetics Program recently. The Karmanos Cancer Institute (an NCI Comprehensive Cancer Center) has accumulated a large and valuable collection of prostate cancer tissues and cell lines. An integrated prostate cancer database linking databases of individual departments and providing a unique resource of diagnostic information has been created on the campus as part of the Prostate Initiative. This recruitment is a part of an ongoing effort to strengthen basic and translational research in molecular genetics on the campus. The Center for Molecular Medicine and Genetics is a University Center that anchors the research and educational efforts in the fields of genetics at Wayne State University and the Detroit Medical Center. A successful candidate (**ANY ACADEMIC RANK and TRACK** are available) will have a strong Doctoral and postdoctoral training in molecular biology and genetics. It is expected that applicants will have established a national reputation in the field of genetics of prostate cancer as judged by their track record of peer-reviewed publications and research funding. Please send your current curriculum vitae, a statement of research interests and objectives, and three letters of recommendation to the Chair of the Search Committee: **Professor Michael Tainsky, Ph.D., c/o Center for Molecular Medicine and Genetics, Wayne State University, 3216 G. H. Scott Hall, 540 East Canfield Avenue, Detroit, MI 48201. Telephone: 313-833-0715, ext. 2641; e-mail: tainskym@karmanos.org.**

**STAFF CLINICIAN POSITION AVAILABLE**

The Laboratory of Clinical Investigation at the National Institute of Allergy and Infectious Diseases seeks highly qualified applicants for an appointment as Staff Clinician. The applicant must be a Physician with subspecialty training and a publication record in infectious diseases, and have demonstrated ability and experience in establishing clinical research involving the pathogenesis and treatment of Lyme disease, herpesvirus infections, and hepatitis B. The applicant should be experienced in ethical and regulatory requirements of human subjects research and institutional review of protocols. Applicants should have demonstrated capacity for intellectual and administrative leadership of multidisciplinary research teams. The individual chosen will have in-patient and outpatient duties and teaching responsibilities. Fluency in English is required. The salary ranges from \$67,000 to \$75,000, depending on experience. Interested candidates should submit their curriculum vitae to: **Dr. Stephen Straus, Laboratory of Clinical Investigation, NIAID, Building 10, Room 11N228, 10 Center Drive, Bethesda, MD 20892-1888. FAX: 301-496-7383; e-mail: sstraus@niaid.nih.gov.** Applications must be postmarked by June 4, 1999. *NIH is an Equal Opportunity Employer.*

**STAFF SCIENTIST**

Position for Ph.D. and/or M.D. with two or more years of postdoctoral training in the area of dietary antioxidants and the assessment of oxidative stress status. This position requires expertise in HPLC and GC methods and experience with animal and/or human studies. Eligible for faculty appointment at Tufts as Instructor or Assistant Professor. Send curriculum vitae and names of three references to: **Dr. Jeffery Blumberg, Antioxidants Research Laboratory, Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University, 711 Washington Street, Boston, MA 02111. E-mail: blumberg@hnrc.tufts.edu.**

The Roche logo consists of the word "Roche" in a bold, sans-serif font, enclosed within a hexagonal border.

Pharmaceuticals

## Postdoctoral Positions

### Who we are

F. Hoffmann-La Roche Ltd, one of the world's leading pharmaceutical companies, has a longstanding reputation for successful and innovative drug development. Roche's preclinical cardiovascular department in Basel, Switzerland, announces a post-doctoral fellowship program and is seeking talented, motivated and energetic post-doctoral fellows. As part of the cardiovascular discovery team, you will be involved in finding ways to help patients live better, longer lives through innovative cardiovascular pharmaceutical products.

### The position

#### *Drug Metabolism and Pharmacokinetics:*

Investigation of new routes/tools to predict drug absorption in man: The pharmacokinetics group is mainly involved in drug discovery activities and establishes, evaluates and validates new approaches in the field of absorption, metabolic stability, active transport processes and interspecies scaling. The objective is to develop and evaluate a physiologically based approach to predict drug absorption in man from in vitro and in vivo preclinical data and to assess the relative gastrointestinal absorption of a large number of compounds in a short period of time. Candidates with a PhD in pharmaceutical sciences and experience in mathematical modelling and intestinal models for drug absorption would be preferred. For scientific information: Philippe.Coassolo@Roche.com

#### *New Target Identification and Validation:*

Identification of gene expression patterns linked to different CV diseases such as congestive heart failure, arrhythmias, myocardial infarction and renal failure: Emphasis will be on RNA subtraction techniques, HD cDNA arrays and oligonucleotide chip analysis. Candidates are preferred who have experience in mining of cDNA and protein databases. The candidate will be part of a highly interactive group where all the technologies are well established and bioinformatic tools and support is available. The capacity to develop and to interpret functional assays in cardiac cells, smooth muscle cells or fibroblasts would be an advantage. For scientific information: Michael.Pech@Roche.com

#### *Vascular Physiology:*

Investigation of the pathophysiological process of progressive kidney diseases: The applicant should have a PhD in physiology or pharmacology with expertise in cell biology (e.g. mesangial cells biology) and in vivo models of kidney and cardiovascular diseases. All candidates with previous experience in kidney histopathology are strongly encouraged to apply. For scientific information: Sebastien.Roux@Roche.com

#### *In vivo Electrophysiology:*

We are particularly interested in new avenues to treat atrial and ventricular arrhythmia. Thus, the applicant should have a PhD in physiology or electrophysiology with a good publication record and expertise in animal models of arrhythmia. The candidate must be familiar with the usual preclinical investigation needed for characterisation of arrhythmia in large species and have a strong interest in interacting closely with our basic electrophysiologists. For scientific information: Sebastien.Roux@Roche.com

#### *Integrin Research:*

Investigation of integrin function and regulation in vascular cells. The qualified candidate has a PhD, preferably in biochemistry, and will have the ability to integrate basic scientific knowledge and experience into problem solving relevant to the elucidation of novel mechanisms of cell regulation through interference with integrins. Experience in integrin research and cell signalling is desirable. The candidate will be part of a highly interactive group of scientists dedicated to seeking new targets relevant for human cardiovascular disease, testing inhibitory principles in various models and consequently, discovering new medicines. For scientific information: Beat.Steiner@Roche.com

#### *Thrombosis Research:*

Investigation of the extrinsic coagulation system focussing on tissue factor biology. The areas under investigation involve enzyme kinetics, cell biology and molecular biology with the emphasis on flow systems. This position is part of a joint post-doctoral fellowship program together with the Division of Thrombosis Research, Mt. Sinai School of Medicine, New York, NY, USA. The candidate will spend 12 - 18 months at F. Hoffmann-La Roche Ltd, Basel, followed by a similar period at Mt. Sinai, New York. For scientific information: Roche: Markus.Riederer@Roche.com or Mt. Sinai: Ynermerson@smtplink.mssm.edu

### Who you are

Applicants must have an MD and/or PhD degree in biological sciences. Qualified candidates must be committed to working in an interdisciplinary team and have excellent written and verbal English communication skills.

### Who to contact

If any of the above profile fits your background and you are interested in a challenging post-doctoral position then please forward your full application documentation to: F. Hoffmann-La Roche Ltd, Mr Werner Aschwanden, PSPB-1, Building 52/205, P.O. Box, CH-4070 Basel, quoting reference: As1702.

EUROPEAN OPPORTUNITIES

**POSITIONS OPEN**

**POSTDOCTORAL POSITION IN  
BIOINFORMATICS/STRUCTURAL  
GENOMICS**

A Postdoctoral position is available to work on a structure-based genomics initiative. This collaborative initiative, which involves academic and industrial laboratories, provides a highly interactive academic environment and competitive salary (\$35,000). Applicants should have a strong background in biophysics and computer programming (C or Fortran). Send curriculum vitae, statement of research interests, and the names of three references to: **Dr. Vincent J. Hilsner, Department of Human Biological Chemistry and Genetics, The University of Texas Medical Branch, 5.166 Medical Research Building, Galveston, TX 77555-1055. Telephone: 409-747-6813; FAX: 409-772-4298; e-mail: vince@hbcg.utmb.edu.** *UTMB is an Equal Opportunity/Affirmative Action Employer/Minorities/Females/Disabled/Veterans.*

**POSTDOCTORAL POSITION** is available to work on a project aimed at the identification and characterization of genes involved in the development and progression of myeloma. This project is part of a NIH program project (PO1) grant. The program has a high patient volume with strong interactions between the clinical and basic research arms. Individuals with an interest in oncogenesis, hematopoiesis, and B-cell development and a strong background in molecular and cellular biology are urged to apply. Please send curriculum vitae, a statement of research interest, and names of three references to: **John Shaughnessy Jr., Ph.D., Myeloma and Transplantation Research Center, University of Arkansas for Medical Sciences, 4301 West Markham Street, Slot 776, Little Rock, AR 72205. E-mail: shaughnessyjohn@exchange.uams.edu.**

Two NIH-funded **POSTDOCTORAL POSITIONS** in neuroscience are available immediately. The first involves investigation of dopamine cell physiology under conditions that elicit dendritic dopamine release in the substantia nigra. Whole-cell recording will be used in tandem with voltammetric detection of dopamine release in brain slices. The second involves mechanistic studies of the effect of oxidative stress on calcium entry and transmitter release. Methods used will include calcium imaging and fluorescent detection of markers of oxidative stress in dissociated cells and in brain slices. Experience in whole-cell recording, calcium imaging, and/or cell culture is desired. Please send curriculum vitae, description of research interests, and names of three references to: **Dr. Margaret E. Rice, Department of Physiology and Neuroscience, New York University School of Medicine, 550 First Avenue, New York, NY 10016. E-mail: margaret.rice@nyu.edu.** *NYU is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** to study informational carbohydrates on proteins and lipids in mammalian systems (glycobiology) with emphases on Lec35p (a candidate flippase) and regulation by ER stress. Send summary of research objectives, curriculum vitae, and names of three references to: **Mark A. Lehrman, Ph.D., Department of Pharmacology, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9041. E-mail: mark.lehrman@email.swmed.edu.** *An Equal Employment Opportunity/Affirmative Action Employer.*

**RESEARCH ASSISTANT**

Our laboratory investigates uniparental inheritance (*Hum. Genet.* 103:694-701). Applicants should have a research background with expertise in molecular biology and a B.S. or M.S. in a relevant field. Please send curriculum vitae and three reference letters to: **Children's Mercy Hospital, Human Resources, 2401 Gillham Road, Kansas City, MO 64108. E-mail: arichardson@cmh.edu; FAX: 816-855-1989.**

**POSITIONS OPEN**

**POSTDOCTORAL POSITIONS IN  
SOMATIC STEM CELL RESEARCH**

Positions are available immediately for recent M.D., Ph.D., and M.D.-Ph.D. graduates, trained in biochemistry, cell biology, and molecular biology, who have interest in pursuing research in the area of somatic stem cell biology. Research projects include investigations of the following in the context of asymmetric stem cell kinetics: p53 tumor suppressor protein function; DNA replication control; cyclin kinase regulation; guanine ribonucleotide metabolism; gene expression analyses by cDNA array; isolation of cell kinetics control genes by insertional mutagenesis; and identification and culture of adult liver stem cells. Projects with direct relevance to cancer drug discovery and cancer risk assessment are also available. Interested graduates should forward curriculum vitae and three letters of reference to:

**James L. Sherley, M.D., Ph.D.  
Division of Bioengineering and  
Environmental Health  
Center for Environmental Health Sciences  
Massachusetts Institute of Technology  
Building 16, Room 755  
77 Massachusetts Avenue  
Cambridge, MA 02139**

**POSTDOCTORAL POSITIONS  
EMORY VACCINE CENTER**

The new Vaccine Center at Emory University consists of strong and growing programs in vaccine and microbial pathogenesis research. Positions are available in studies of host-virus relationships in pathogenic and nonpathogenic HIV and HIV infections. Expertise in contemporary molecular biological and/or immunological approaches required. Experience in quantitative microscopic imaging methods and flow cytometry desired. Send curriculum vitae and names of three references to: **Dr. Silvija Staprans or Dr. Mark Feinberg, Department of Medicine, 1518 Clifton Road, Rollins School of Public Health, Atlanta, GA 30322. FAX: 404-727-9853; e-mail: cfar@sph.emory.edu.** *Emory University is an Equal Employment Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION.** Postdoctoral position is immediately available to study the molecular basis of T cell activation. The projects involve rational drug design in developing molecules for controlling activation of pathogenic T cells. *Applicants for this multidisciplinary program must be U.S. citizens or permanent residents and should have an M.D. or Ph.D. degree.* A strong background in biochemistry, molecular biology, and structural immunology is essential. This position has guaranteed two- to three-year funding at \$40,688 annually. Interested applicants should send a curriculum vitae, a statement of career goals, and names of three references to: **Eva Niehaus, Portland VA Medical Center, Neuroimmunology Research R&D-31, 3710 S.W. U.S. Veterans Hospital Road, Portland, OR 97201.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in neurobiology to study the molecular determinants of addictive behavior. Projects investigate the regulation of opioid and dopaminergic systems and related signal transduction pathways in response to cocaine and opioids using several animal models. Please send curriculum vitae, statement of research interests, and names of three references to: **Dr. E. Unterwald, Temple University School of Medicine, Department of Pharmacology, Center for Substance Abuse Research, 3420 North Broad Street, Philadelphia, PA 19140. E-mail: eunterwa@unix.temple.edu.**

**POSTDOCTORAL FELLOW** in molecular biology/signal transduction at Center for Study of Gene Structure and Function in Hunter College, City University of New York. Salary: \$30,000 or above commensurate with qualifications. E-mail résumé to: **Dr. Robert Dottin, Program Director, e-mail: research@genectr.hunter.cuny.edu.** *Equal Opportunity Employer/Affirmative Action.*

**POSITIONS OPEN**

**RESEARCH POSITION IN  
QUATERNARY SCIENCE AT THE  
UNIVERSITY OF WASHINGTON**

The Quaternary Research Center (QRC) invites applications for a **POSTDOCTORAL RESEARCH** position in any aspect of quaternary science (including the life, social, and physical sciences). We are especially interested in individuals eager to interact extensively with multidisciplinary members of the QRC and other University of Washington (UW) groups. Earned Ph.D. degree is required. Funding is available for one year, and may be renewable.

Applications should include a curriculum vitae, a statement of research interests and plans, and a list of three referees. They should be sent to: **Bernard Hallet, Director, Quaternary Research Center, Box 351360, University of Washington, Seattle, WA 98195-1360 USA.**

Priority will be given to materials received before June 15, 1999. *The UW is an Equal Opportunity/Affirmative Action Employer who is building a culturally diverse research community and strongly encourages applications from women and minority candidates.*

A **POSTDOCTORAL POSITION** is available to study the structure and regulation of the telomerase RNP in the ciliated protozoan, *Euplotes crassus*. The *Euplotes* enzyme is the only known telomerase that undergoes developmentally regulated assembly into higher order complexes that are biochemically and structurally unique. You will explore the composition and biochemical properties of the telomerase holoenzyme, focusing on identifying novel proteins that interact with the reverse transcriptase and/or RNA subunits of the enzyme. Experience in protein purification and molecular biology is essential. Send curriculum vitae, description of research experience, and three reference letters to: **Dr. Dorothy Shippen, Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX 77843-2128 USA. FAX: 409-845-9274; e-mail: dshippen@tamu.edu.**

**POSTDOCTORAL, RESEARCH SCIENTIST, TECHNICIAN** position available immediately at Tufts University Medical School to investigate (1) signal transduction in HIV neural injury or (2) genetics of neurological disorders. Experience in molecular biology/tissue culture required. Send curriculum vitae and names of three references to: **Bradford Navia, M.D., Ph.D., Research Laboratories in Psychiatry, P.O. Box 1007, 750 Washington Street, Boston, MA 02111. E-mail: bngene@aol.com.**

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

A **POSTDOCTORAL POSITION** is available immediately to investigate the molecular and cellular aspects of wound healing. Candidates should be experienced in molecular and cell biology, genetics, and physiology. The salary will be commensurate with experience and the appointment is for two years. Send curriculum vitae to: **Dr. Salomon Amar, Boston University, 100 East Newton, G05, Boston, MA 02118. Telephone: 617-638-4983; FAX: 617-638-8549; e-mail: samar@bu.edu.**

**POSTDOCTORAL POSITION** available to study molecular mechanisms of apoptosis in hematopoietic development. Studies will focus on caspases and endogenous inhibitors of apoptosis. Experience in cell and molecular biology are essential. Please send curriculum vitae and names of references to: **Daniel E. Johnson, Ph.D., Division of Hematology/Oncology, University of Pittsburgh, BST E1055, 211 Lothrop Street, Pittsburgh, PA 15213-2582.**

## POSTDOCTORAL POSITION IN OPHTHALMOLOGY

### University of Washington School of Medicine

The University of Washington, Department of Ophthalmology invites applications for a **POSTDOCTORAL POSITION** to study visual signal transduction and retinoid metabolism in the eye. Experience in biochemistry, molecular biology, chemistry, and/or mass spectrometry is desirable. Send curriculum vitae and names of references to:

**Dr. K. Palczewski,**  
University of Washington  
Department of Ophthalmology  
Box 356485, 1959 NE Pacific St.  
Seattle, WA 98195-6485.

E-mail:  
**palczews@u.washington.edu.**

*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.*

## Merck KGaA

Darmstadt / Germany

## Biomedical Research

The Preclinical R&D Department "Biomedical Research" located in Darmstadt/Germany has the following opportunity available:

**Senior Research Scientist in Molecular Tumor Biology.** Responsibilities include leading a laboratory devoted to research on drug candidates in the field of checkpoint regulation and/or programmed cell death (apoptosis) as well as the supervision of technicians and postdoctoral fellows.

Interested candidates should hold a Ph.D. degree and have several years of postdoctoral experience. A strong research record in molecular cell biology is mandatory. Applicants with an established interest in tumor biology and in vivo systems are particularly welcome.

The position is available immediately. Further information can be obtained through [rieke@merck.de](mailto:rieke@merck.de) or [matzku@merck.de](mailto:matzku@merck.de). Please send cover letter and your full CV to Merck KGaA, Personnel Services, Mr. P. Geib, D-64271 Darmstadt. Closing date for applications is June 11, 1999.



### The Marshfield Medical Research Foundation,

the research arm of Marshfield Clinic, is seeking a person with a strong academic background and outstanding administrative skills for the position of Associate Director. The Marshfield Medical Research Foundation is a non-profit institution with programs of research, education, and outreach. In addition to participation in extensive clinical research activities the Foundation is home to the rural research activities of the National Farm Medicine Center and the Center for Health Services Research, the Center for Medical Genetics, the Marshfield Epidemiology Research Center, and the Center for Community Outreach. It is located within the Marshfield Clinic system, a premier healthcare network of over 570 physicians in 38 locations throughout central, northern, and western Wisconsin. The Foundation's mission is to discover and communicate scientific knowledge that substantially improves human health and well-being.

The position of Associate Director provides an outstanding opportunity for an individual with proven administrative success and good leadership and consensus building skills to help scientists achieve their scientific goals, develop administrative policy and reporting mechanisms, and manage and review all support systems created to assist scientists and clinicians in their scientific endeavors. The successful candidate will possess a broad view of science, evidence of administrative success in a research setting, a record of cumulative leadership responsibilities and the ability to navigate among complex scientific concepts and attendant administrative support structures and functions. A graduate degree in management or public administration (or equivalent) is required. A Ph.D. is preferred.

Interested candidates should send their curriculum vitae in confidence to: **Human Resource Representative, Marshfield Clinic, 1000 North Oak Avenue, Marshfield, WI 54449 or call 1-800-782-8581, extension 93288. Fax 715-387-5400.** Sorry. Not an underserved area. An equal opportunity/affirmative action employer, m/f/h/v.

Email: [kupferj@mfldclin.edu](mailto:kupferj@mfldclin.edu)  
Website: [www.marshfieldclinic.org](http://www.marshfieldclinic.org)



## Nestlé

### THE NESTLÉ RESEARCH CENTER IN LAUSANNE

is seeking a  
**TOXICOLOGIST**

To address chemical food safety issues as well as to develop an efficient information management and communication system in this context. This position is anticipated to last 18 months with the possibility of extension.

#### Responsibilities:

- Perform safety assessment on food safety related topics.
- Develop and implement novel/additional strategies for efficient retrieval of toxicology and screening of data critical to food safety issues by applying knowledge of toxicology and risk assessment (using resources such as commercial databases, Internet, etc.).
- Work with professionals from different background to implement a novel and efficient information management/exchange and communication system.
- Possibility to perform laboratory research.

Candidates should have a PhD in a field of bioscience with academic background in toxicology and risk-assessment. Preferred experience in food safety. Demonstrated knowledge and interest in computer database application and targeted use of Internet resources. Excellent written and oral communication skills in English. French is often used; German would be a plus. Other skills required: ability to work well in a multi-disciplined team environment. Strong written and communication skills.

Should you be interested, please send your application including curriculum vitae and names of three references (address and telephone) to the following address: **Nestlé Research Center, Human Resources, Attn. Mr. S. Spencer, P.O. Box 44, CH-1000 Lausanne 26.**

**POSITIONS OPEN**

**POSTDOCTORAL POSITIONS.** Molecular biology of bacterial pathogenesis. Postdoctoral positions are available in the Department of Microbiology at the University of Colorado Health Sciences Center. Potential projects include analyzing structure, function, and trafficking of cholera toxin; developing chimeric cholera toxins as vaccines; and characterizing the diphtheria toxin repressor and its regulon in *Corynebacterium diphtheriae*. A Ph.D. in microbiology, molecular biology, genetics, biochemistry, cell biology, or a related field is required. Research facilities and professional environment are excellent. Salary is commensurate with training and experience. Submit curriculum vitae, bibliography, and names of three professional references to: **Dr. Randall Holmes, The Department of Microbiology, Campus Box B-175, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262.** *The University of Colorado Health Sciences Center is committed to Equal Employment Opportunity and Affirmative Action.*

**POSTDOCTORAL POSITION  
ENZYMOLGY/PROTEIN  
CRYSTALLOGRAPHY**

A position is available immediately to study the interrelationship between protein structure and function. Molecular biology techniques will be utilized for creating altered enzymes to study specific aspects of their catalytic and regulatory mechanisms. Mutant proteins will be characterized by kinetics, NMR, spectroscopy, as well as X-ray diffraction. Candidates with a Ph.D. degree in enzymology or protein crystallography or molecular biology that want to extend their experience to the other areas are particularly encouraged to apply. Send curriculum vitae, names and telephone numbers of three references to: **Dr. Evan R. Kantrowitz, Department of Chemistry, Boston College, Chestnut Hill, MA 02467.** Telephone: 617-552-4558; FAX: 617-552-2705; e-mail: evan.kantrowitz@bc.edu.

**POSTDOCTORAL POSITION  
IN TUMOR IMMUNOLOGY**

A Postdoctoral position is available immediately for a NIH-funded position for studying the molecular mechanisms of tumor evasion of host immunity, transcriptional regulation of antigen presentation genes, and immune recognition in prostate cancer (*Nature* 396:373, 1998). Ph.D. graduate training in immunology or molecular biology is required. Send curriculum vitae and names of three references to: **Dr. Pan Zheng, Department of Pathology, The Ohio State University, 1645 Neil Avenue, Columbus, OH 43210.** FAX: 614-292-7072; e-mail: zheng-1@medctr.osu.edu.

**POSTDOCTORAL POSITION** available immediately to study the role(s) played by CNTF receptors in endogenous mechanisms of neuroprotection and neurorepair. The research will involve the use of anatomical and molecular biology techniques to characterize *in vivo* CNTF receptor signal transduction following nervous system injury. Pharmacological and molecular biology (viral vectors) techniques will be utilized to manipulate CNTF receptor expression and function *in vivo*. Experience with one or more of the relevant procedures is preferred. Please send curriculum vitae and names of three references to: **John MacLennan, Department of Neuroscience, University of Florida Brain Institute, Gainesville, FL 32610-0244.** E-mail: maclen@nersp.nerdc.ufl.edu.

**POSTDOCTORAL POSITIONS** available immediately to study nuclear receptor function and programmed cell death in *Drosophila*. Developmental studies include (1) ligand-dependent function of steroid-superfamily receptors and (2) action of IAP-type proteins on cell death and proliferation. Ph.D. and experience in molecular and cellular biology essential. Send curriculum vitae, names and addresses of three references to: **Marilinda Eller** at either **Cellular and Molecular Biology Section, 304 Morgan Building, School of Biological Sciences or Chandler Medical Center, 306 HSRB, University of Kentucky, Lexington, KY 40506.** *Equal Opportunity Employer.*

**POSITIONS OPEN**

**POSTDOCTORAL POSITION  
MOLECULAR NEUROBIOLOGY**

Postdoctoral Fellowship available immediately to study the expression and regulation of glutamate receptor genes. Analyses are performed in a variety of cultured cells and in transgenic mice, in order to characterize the regulatory DNA elements and transcription factors. Candidates must have a Ph.D. and/or M.D., a background in molecular biology, and less than five years of postdoctoral experience. Please send curriculum vitae, bibliography, description of research experience, and names of three references to: **Dr. Vittorio Gallo, Laboratory of Cellular and Molecular Neurophysiology, National Institute of Child Health and Human Development, NIH, Building 49, Room 5A78, 49 Convent Drive, Bethesda, MD 20892-4495.** Please reply by July 15, 1999. *National Institutes of Health is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION  
MOLECULAR AND CELLULAR BIOLOGY  
OF THE HEART**

Position available in the Division of Cardiology of Indiana University School of Medicine to study the molecular genesis of cardiac hypertrophy. The discovery of an hypertrophy-responsive transcription factor that is functional *in vivo* and can be coupled to signal transduction events provide the successful candidate multiple avenues of investigation, including the preparation of a transgenic mouse line harboring the DNA target of the factor. Experience in molecular and cellular biology is preferred. Send curriculum vitae and references to: **Michael E. Ritchie, M.D., Krannert Institute of Cardiology, 1111 West 10th Street, Indianapolis, IN 46202.** FAX: 317-554-0230; e-mail: miritchi@iupui.edu. *Indiana University is an Affirmative Action/Equal Opportunity Employer.*

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

**HIV-1 LABORATORY  
THE WISTAR INSTITUTE**

Immediate position available for a **VISITING SCIENTIST or POSTDOCTORAL FELLOW** to investigate cytokine adjuvancy for HIV-1 vaccine development, emphasis on mechanisms of antigen presentation (*J. Immunol.* 162:4606, 1999). Experience with cellular immunology or murine model systems preferred. Please send curriculum vitae and the names of three references to: **Human Resources Department, The Wistar Institute, Attn: Dr. L. J. Montaner, 3601 Spruce Street, Philadelphia, PA 19104.** *Equal Opportunity Employer/Affirmative Action/Minorities/Females/Disabled/Veterans.*

**POSTDOCTORAL POSITION** available to study proteolytic processing of protein precursors into active peptide hormones and neurotransmitters. Projects focus on multidisciplinary approaches in molecular and cell biology, and biochemistry. Experience in expression of genes in cell lines and biochemistry is desirable. *Support by NIH training grant requires U.S. citizenship or permanent residence.* Send curriculum vitae, brief description of research experience, and names of three references to: **Dr. V. Hook, Department of Medicine, University of California San Diego, 9500 Gilman Drive #0822, La Jolla, CA 92093-0822.** E-mail: vhook@ucsd.edu.

**POSITIONS OPEN**

**POSTDOCTORAL POSITIONS  
ION CHANNELS**

Two Postdoctoral positions are available to study ion channel function and regulation. One position will focus on ion channels in the nervous system (e.g., *Science* 282:1890). The other position will focus on ion channels in heart (e.g., *Circ. Res.* 84:620; 80:261; 79:659). Successful applicants will have experience in one or more of the following areas: membrane protein chemistry, electrophysiology, molecular biology, or immunohistochemistry. The annual salary will be \$30,000. Send curriculum vitae and names of references to: **Dr. Ira S. Cohen, Department of Physiology and Biophysics or Dr. David McKinnon, Department of Neurobiology and Behaviour, State University of New York at Stony Brook, Stony Brook, NY 11794.**

*SUNY Stony Brook is an Equal Employment Opportunity/Affirmative Action Employer and Educator.*

A **POSTDOCTORAL POSITION** is available immediately to study human enzymes involved in base excision repair. Current research projects involve the construction and characterization of chimeric DNA repair proteins (*J. Biol. Chem.* 273:756-762, 1998), and determining the communication signals that individual DNA repair proteins use in responding to stress. Applicants must have extensive experience in molecular biology, with a background in reporter transfections preferred. Send letter, curriculum vitae, and the names and contact information for three references to: **Dr. Walter A. Deutsch, Pennington Biomedical Research Center, Louisiana State University, 6400 Perkins Road, Baton Rouge, LA 70808.** FAX: 225-753-3030; e-mail: deutcswa@mhs.pbrc.edu.

**POSTDOCTORAL POSITION** available starting July 1, 1999, for an NIH-funded program project on calculation of static and dynamic electrical properties of proteins and protein cofactors. Ph.D. in physical chemistry, chemical physics, biophysics, or related field and previous experience in molecular modeling, electrostatic calculations, or molecular dynamics on proteins is required. Please send a curriculum vitae and three letters of references to: **Dr. Kim Sharp, Department of Biochemistry and Biophysics, School of Medicine, University of Pennsylvania, Philadelphia, PA 19104-6059.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS** in immunology at Brown University. Positions are available for individuals interested in cytokines and innate immune responses to viral infections. Previous experience in immunology, virology, biochemistry, or molecular biology required. Please send curriculum vitae, and have three letters of reference sent to: **Dr. Christine A. Biron, Division of Biology and Medicine, Box G-B629, Brown University, Providence, RI 02912.** Screening will continue until successful candidates are identified or the search is closed. *Brown University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available immediately to study mechanism of retinal degenerations caused by genetic mutations and gene functions involved in retinal degenerations. Experience in biochemistry, molecular biology, or transgenic techniques desired. Send curriculum vitae and references to: **Dr. Tiansen Li, Massachusetts Eye and Ear Infirmary, 243 Charles Street, Boston, MA 02114.** FAX: 617-573-3216; e-mail: tli@meei.harvard.edu.

**POSTDOCTORAL and RESEARCH ASSOCIATE** positions available to conduct research on the role of sphingolipids as signal transducers during stress responses in *Saccharomyces cerevisiae* (*J. Biol. Chem.* 272:30196, 273:19437; *Ann. Rev. Biochem.* 67:27). Experience with yeasts, lipids, enzymology, or signal transduction is required. Send résumé with names of three references to: **Robert Dickson, Department of Biochemistry, University of Kentucky, Lexington, KY 40536-0298.**

[www.rigel.com](http://www.rigel.com)

Located in the San Francisco Bay Area, Rigel is a demanding and fast-paced biotechnology company using revolutionary gene transfer technologies to identify and validate novel drug targets in the areas of immunology, asthma, inflammation, and cancer. Our continued progress has created a great opportunity in our South San Francisco facility for dedicated researchers committed to scientific excellence to make key contributions to our expanding drug discovery program.

### Associate Director/Director, Molecular Biology

Qualified candidates will have a Ph.D. in biological sciences, a minimum of 6-8 years' industry research experience, and a strong publication record. Candidates must have the proven ability to lead and participate on teams in a highly collaborative, team-oriented environment. Demonstrated scientific excellence and managerial experience in an industry setting is required. (Job Code: DMB)

### Scientist, Chemistry

We are looking for a unique Ph.D.-level chemist to participate in our Drug Discovery efforts, and help establish the infrastructure of our chemistry team. Qualified candidates will possess diverse experience in organic synthesis; the ability to excel in a demanding, fast-paced team environment; and excellent written/verbal communication skills. Knowledge of medicinal chemistry preferred. (Job Code: RS-SCI)

Revolutionizing Functional Genomics

RIGEL

### Scientist, Immunology

Participating in our immune regulation project, you will develop robust cell-based assays to monitor lymphocyte activation, construct libraries, and implement high throughput screening to identify novel targets in signal transduction of immune cells. Qualified candidates will have an M.D. or Ph.D. in life sciences and 1-2 years' post-doctoral experience in molecular biology, genetics, or immunology. Demonstrated scientific excellence and teamwork ability is required. (Job Code: CL-SCI)

### Molecular/Cellular Immunologist

Candidates should have 3-5 years' experience beyond postdoctoral fellowship. Industrial experience a plus. Solid background in cell biology and assay development preferred. (Job Code:DF-PD)

### Research Associate/ Sr Research Associate, Immunology

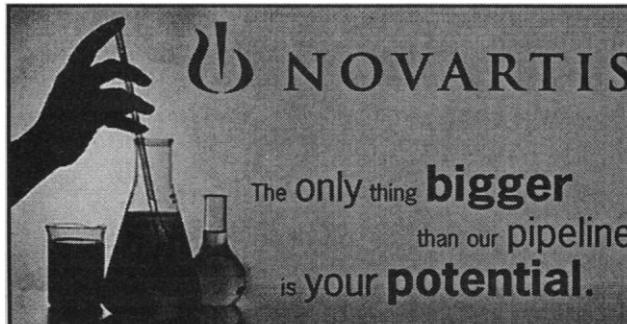
Qualified candidates will have a BS/MS in biological sciences and 2-5 years' experience in research laboratories with an emphasis on molecular and cellular immunology. Experience with library construction, ELISA, cell-based assay development and flow cytometry preferred. (Job Code: CL-RA)

### Research Associate, Organic Chemistry

You will provide organic synthesis support using classical techniques along with combinatorial chemistry. The position requires a BS/MS in organic chemistry or equivalent; demonstrated knowledge of theoretical organic chemistry; the ability to excel in a team-oriented environment; and excellent communication skills. Relevant experience a plus. (Job Code: RS)

Rigel offers competitive salaries & benefits, attractive stock options, and the opportunity to make significant research contributions. Please send resumes to: Rigel, Inc., HR, (Attn: Job Code), 240 East Grand Ave, South San Francisco, CA 94080, or via email (ASCII format only) to: [jobs@rigel.com](mailto:jobs@rigel.com). EOE

[www.rigel.com](http://www.rigel.com)



The only thing bigger  
than our pipeline  
is your potential.

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

### Sr. Scientist/Lab Head, Arthritis Pharmacology

As a lead member of our Arthritis Biology Research Department, you will be responsible for the application of standard and novel approaches in the field of Arthritis/Inflammation Pharmacology. This will involve the development and implementation of *in vitro* and *in vivo* models of rheumatoid arthritis, osteoarthritis and tissue inflammation. Also, you will be expected to initiate and develop original approaches to therapy, prepare internal reports, publish in peer-reviewed journals and make presentations at national and international meetings. The qualified candidate will have a strong background in at least one of the following areas: cartilage and bone metabolism; autoimmune diseases; inflammation biology. Excellent written and verbal communication skills, day-to-day laboratory management and supervisory skills, and evidence of research productivity are important qualifications for this position. All candidates should hold a Ph.D. in a biological science, along with 3+ years of postdoctoral training which MUST include experience with *in vivo* models of arthritis and inflammation. Please refer to Position HB-6149 on resume and envelope, or as the subject of your e-mail.

### Sr. Scientist/Lab Head, Oncology Biology

As a lead member of our Oncology Biology Research Department, you will creatively utilize a full range of molecular and cellular approaches to identify novel cancer agents in the areas of angiogenesis, signal transduction, cell cycle regulation and cell survival/death pathways. You will join one of several ongoing research programs with the expectation that your scientific, leadership and management skills will enable you to create and head a multi-disciplinary discovery/development project. The successful candidate will have distinguished him/herself academically in undergraduate and graduate school and have a significant publication record from three or more years of postdoctoral research in the areas of molecular/cellular biology, signal transduction biochemistry or molecular pharmacology. Demonstrated dedication to oncology research and familiarity with protein expression and purification desirable. Supervisory experience, strong communication skills and the ability to function as an effective team member in a multi-disciplinary environment are important attributes. Please refer to position HB-6555 on resume and envelope, or as the subject of your e-mail.

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

[www.pharma.us.novartis.com](http://www.pharma.us.novartis.com)

**POSITIONS OPEN**

**POSTDOCTORAL FELLOWSHIPS  
ALBERT EINSTEIN COLLEGE OF MEDICINE**

The "Mechanisms of Cardiovascular Disease" Training Grant offers NIH-funded Postdoctoral positions to candidates with Ph.D's and/or M.D's desiring two or three years of laboratory-based training. Participating laboratories have programs in molecular regulators of angiogenesis (J. A. Ware); cardiomyocyte growth and cell death (R. N. Kitsis); gap junctions in cardiovascular tissues (D. Spray); transcription factors in cardiac development (T. R. Evans, H. Nguyen); TGF- $\beta$  in vascular growth (E. Bottinger); diabetic cardiomyopathy (M. Charron); mechanisms of cell migration (J. Condeelis); anti-myosin antibodies in myocarditis (B. Diamond); cholesterol in membrane transport (M. Kielian); genetics of cardiovascular abnormalities (B. Morrow, R. Kuchelapati, A. Skoutchi); caveolae in cardiovascular tissues (M. Lisanti); ion channel regulation (T. McDonald); monocyte-endothelial interaction (J. Berman); prostaglandin transport (V. Schuster); adhesion molecules (P. Stanley); *T. cruzi* myocarditis (H. Tanowitz); and cell cycle control (R. Pestell, L. Zhu).

Candidates must be U.S. citizens or permanent residents. To apply, please send a curriculum vitae, names of three references, and a statement of research interests to: J. Anthony Ware, M.D., Chief, Cardiovascular Division, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. FAX: 718-430-8989.

*Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH POSITIONS  
IN MICROBIOLOGY  
American Society for Microbiology/  
National Center for Infectious Diseases**

Positions are available for Postdoctoral Scientists to conduct novel research with the overall objective of developing practical applications of microbiology, immunology, and epidemiology for diagnosis and prevention of infectious diseases. Associates will perform research in residence at the National Center for Infectious Diseases, which is headquartered at the Centers for Diseases Control and Prevention in Atlanta, Georgia.

Deadline for applications is November 15, 1999. Website: <http://www.asmsusa.org/edusrc/edu23c.htm>; e-mail: [fellowships-careersinformation@asmsusa.org](mailto:fellowships-careersinformation@asmsusa.org).

**POSTDOCTORAL POSITION** available immediately to study the roles of the retinoblastoma tumor suppressor (pRB) and the E2F-1/DP-1 transcription factor *in vivo*. Mutant mice lacking either E2F-1 or DP-1 display radically different phenotypes, demonstrating distinct temporal and spatial requirements exist. Ph.D. and/or M.D. is required, and less than three years of postdoctoral training. Molecular biology and previous animal experience is desirable. Please send a curriculum vitae and telephone numbers/e-mail addresses of three references to: Dr. Lili Yamasaki, Columbia University, Department of Biological Sciences, MC2428, New York, NY 10027. E-mail: [ly63@columbia.edu](mailto:ly63@columbia.edu). *Columbia University is an Equal Opportunity/Affirmative Action Employer and is especially interested in receiving applications from qualified women and minorities.*

**POSTDOCTORAL POSITION** at Washington University School of Medicine. Work at the interface between cellular neurobiology and biomedical engineering as part of the Institute of Biological and Medical Engineering. Characterize the effects of a myosin knockout on nerve cell growth, motility, and mechanical properties using advanced microscopy techniques, including atomic force microscopy. Send curriculum vitae and names of three references to: Dr. Paul Bridgman, Washington University School of Medicine, Box 8108, 660 South Euclid Avenue, St. Louis, MO 63110. Telephone: 314-362-3449; FAX: 314-747-1150; e-mail: [bridgmap@thalamus.wustl.edu](mailto:bridgmap@thalamus.wustl.edu). *Equal Opportunity/Affirmative Action Employer.*

**POSITIONS OPEN**

**INTERESTED IN CLINICAL OR  
POSTDOCTORAL RESEARCH  
TRAINING?**

The National Institutes of Health has both! For more information, visit our website which lists an array of clinical and postdoctoral opportunities, including tenure-track positions. <http://www.training.nih.gov>  
*The NIH is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** are available immediately to study the role of glycogen-associated protein phosphatases (PP1Gs) in hormonal control of glycogen metabolism and cardiac muscle functions. Transgenic mice overexpressing phosphatase subunits and gene knockout mice deficient in the muscle-specific PP1G will be used to address the question of the physiological role and the regulation of the phosphatase both in cardiac and skeletal muscle. Studies in heart will address the role of the phosphatase on cardiac muscle contractility and hypertrophy. Studies in skeletal muscle will be aimed at understanding the insulin and epinephrine control of glycogen metabolism. Individuals are sought with experience in enzymology, cell biology, or molecular biology. Please send curriculum vitae and have three letters of reference forwarded to: Anna DePaoli-Roach, Ph.D., Professor, Department of Biochemistry and Molecular Biology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202. Telephone: 317-274-1585; e-mail: [adepaoli@iupui.edu](mailto:adepaoli@iupui.edu).

**POSTDOCTORAL FELLOWSHIP  
YALE UNIVERSITY**

NIH Training Grant position on project for positional cloning of genes responsible for human autosomal dominant polycystic liver disease (PLD). We have established linkage to one locus and demonstrated genetic heterogeneity. The program is directed at identifying PLD genes and understanding their function in the context of other genes causing polycystic disease (*Science* 272:1339; *Cell* 93:177). Applicants must be U.S. citizens/permanent residents with a strong background in molecular biology. Please send description of research experience, curriculum vitae, and three references to: Stefan Somlo, M.D., Boyer Center for Molecular Medicine/Nephrology, P.O. Box 208029, New Haven, CT 06520-8029. FAX: 203-785-7068; e-mail: [stefan.somlo@yale.edu](mailto:stefan.somlo@yale.edu).

**POSTDOCTORAL POSITIONS** to study the role of the winged helix transcription factors HNF-3 $\beta$  and HFH-11 in liver regeneration and function. This research will involve the use of transgenic and gene knockout mouse models to examine the *in vivo* role of HNF-3 $\beta$  and HFH-11 in regenerating liver and in transcriptional regulation of hepatocyte-specific genes (See website: <http://www.uic.edu/depts/mcgn/fac/cos.html>). Please send curriculum vitae, names, telephone numbers, and e-mail addresses of three references to: Dr. Robert H. Costa, University of Illinois at Chicago, Department of Molecular Genetics (M/C 669), 900 South Ashland Avenue, Chicago, IL 60607-7170. FAX: 312-355-4010; e-mail: [robcosta@uic.edu](mailto:robcosta@uic.edu). *UIC is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** to study lymphocyte adhesion and trafficking, models of inflammation and autoimmunity, and T cell activation and signaling. Candidates with a Ph.D. or M.D. and experience in immunology or a closely related field are sought. Send curriculum vitae, a description of research experience and interests, and three letters of recommendation to: Dr. Mark Siegelman, Department of Pathology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9072. FAX: 214-648-4070; e-mail: [siegelman@utswmcd.edu](mailto:siegelman@utswmcd.edu). More details at website: <http://pathcuric1.swmed.edu>. *An Equal Opportunity Employer.*

**POSITIONS OPEN**

**POSTDOCTORAL POSITIONS  
INDIANA UNIVERSITY  
SCHOOL OF MEDICINE  
Gastroenterology/Hepatology**

Biochemistry/physiology. Postdoctoral position available immediately to study signal transduction of calcium-regulated chloride conduction in gastrointestinal tissue. This work will involve a variety of molecular and biochemical techniques that will be closely coupled to parallel electrophysiological studies. A predominant aspect of this project will be to explore the role of calcium-dependent chloride channels in cell adhesion. The candidate should have a Ph.D. in biochemistry or physiology. Please send curriculum vitae and names/telephone numbers of three references to: Ann P. Kwiatkowski, Ph.D., 975 West Walnut Street, IB-424, Indianapolis, IN 46202. E-mail: [akwiatk2@iupui.edu](mailto:akwiatk2@iupui.edu).

Electrophysiology. Postdoctoral position available to explore signal transduction and intercellular communication between liver cell types. The focus will be on the cytokine regulation of ion channel function using electrophysiological and ion efflux approaches. The candidate should have a Ph.D. in physiology or other relevant fields (e.g., neuroscience, pharmacology) and must be a U.S. citizen and within three years of having received their Ph.D. Experience performing patch clamp recordings would be attractive. Please send curriculum vitae and names/telephone numbers of three references to: James M. McGill, M.D., 975 West Walnut Street, IB-424, Indianapolis, IN 46202.

*Indiana University is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION  
MOLECULAR NEUROBIOLOGY**

A position is currently available to study the molecular organization of excitatory synapses. Current studies are using molecular, biochemical, and optical imaging techniques to investigate the membrane trafficking and synaptic targeting of ionotropic glutamate receptors. Candidates should be experienced in molecular biology and protein biochemistry. A background in optical imaging would also be beneficial. Interested candidates should submit a curriculum vitae and contact information for three references to: Michael D. Ehlers, M.D., Ph.D., Department of Neurobiology, Duke University Medical Center, Box 3209, Durham, NC 27710. E-mail: [ehlers@neuro.duke.edu](mailto:ehlers@neuro.duke.edu). *Duke University is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** available for Molecular Biologists to work on the development of RNA-based therapeutics. Potential projects include developing potent RNA-based tumor vaccines (Boczkowski et al., *J. Exp. Med.* 184:465, 1996) employing trans-splicing ribozymes to repair mutant transcripts (Lan et al., *Science* 280:1593, 1998) and utilizing *in vitro* selection techniques to isolate RNA ligands that can impede protein function (Ishizaki et al., *Nature Medicine* 2:1386, 1996). Applicants should have a Ph.D. or M.D. and extensive research experience in molecular biology techniques. Send curriculum vitae, a brief description of research interests, and three letters of reference to: Dr. Bruce Sullenger and Dr. Eli Gilboa, Box 2601, Center for Genetic and Cellular, Duke University Medical Center, Durham, NC 27710.

**POSTDOCTORAL POSITION IN  
AIDS RESEARCH**

**The Ohio State University Medical Center**

Available immediately for NIH-funded projects to study HIV pathogenesis and vaccine against AIDS. Ph.D. and/or M.D. with strong background in molecular biology/immunology are encouraged. Send curriculum vitae, and references to: Kunal Saha, M.D., Ph.D., Children's Research Institute, 700 Children's Drive, Room W532, Columbus, OH 43205. FAX: 614-722-3273/2716; e-mail: [sahak@pediatrics.ohio-state.edu](mailto:sahak@pediatrics.ohio-state.edu).

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# RESEARCH ONCOLOGISTS

Fortune 100 headquartered in northern Baltimore, MD is embarking on a comprehensive program in clinical diagnostics for oncology through a strategic alliance with a major leader in functional genomics for diagnostics. BECTON DICKINSON is an established global innovator in the design/manufacturing of cutting-edge medical and laboratory diagnostic systems used extensively in industrial/clinical/research laboratories.

*This exciting, very important alliance has created an immediate requirement for highly motivated Research Oncologists possessing a PhD and/or MD with 2-5 years post doctoral experience in cell biology, molecular biology, biochemistry, pathology, physiology or related field.*



Assisting in the design, creation and development of screening and staging tests for diagnosing a wide variety of cancers, these commercial systems will utilize tumor markers arising from our genomic partnership and will guide primary physicians, pathologists and clinical oncologists in the effective treatment of cancer patients by providing individualized diagnostic and prognostic information.

A proven track record (publication list) demonstrating a comprehensive knowledge of cancer biology and first-hand experience with related experimental techniques such as immunohistochemistry and situ hybridization are required. In depth experience with clinical diagnostics and/or cancer therapy would be a strong plus.



These highly visible, life-enhancing opportunities command a very competitive compensation package including comprehensive benefits. Relocation assistance will be provided, if necessary. Qualified professionals are urged to e-mail, FAX or mail a detailed resume to JRNL059A. BECTON DICKINSON MICROBIOLOGY SYSTEMS, P.O. Box 8255, Gaithersburg, MD 20898. Fax (301) 519-8403 or (888) 771-9898. E-Mail: [BD@alexus.com](mailto:BD@alexus.com) We are an equal opportunity/affirmative action employer. Minorities, females, and individuals with disabilities are encouraged to apply. VISIT our WEBSITE for a complete listing of opportunities: [www.BD.com](http://www.BD.com)

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## GLOBAL OPPORTUNITIES

CSIRO Plant Industry,  
Australia



## Post Doctoral Fellowships

A\$44K - A\$50K + Superannuation

CSIRO Plant Industry in a joint research venture (Graingene) with the Australian Wheat Board Ltd and the Grains Research and Development Corporation, is offering a number of Post Doctoral Fellowships and are seeking highly motivated people with a proven record of research achievement in plant science. You will be conducting innovative research on various aspects of plant growth and development, molecular nutrition, plant productivity, product quality, pest and disease resistance, genomics and plant breeding. Successful applicants will have a PhD and relevant experience in Molecular Biology, Plant Biochemistry, Genetics, Virology, Physiology or Plant Breeding.

An information package and selection documentation can be obtained by faxing (61 2) 6246 5000 or email: [recruit@pi.csiro.au](mailto:recruit@pi.csiro.au) or via our website <http://www.pi.csiro.au/> Applications close 14 June 1999. 76651

**Australian Science, Australia's Future**

The Walter and Eliza Hall Institute of Medical Research

## Director of Commercialisation and Development

The Walter and Eliza Hall Institute is Australia's pre-eminent medical research institute, with a strong history of significant discoveries of clinical importance. This new position is being established as part of the Hall Institute's strategic leadership for the emerging biotechnology industry.

The appointee will take responsibility for:

- establishing a commercialisation/development unit;
- evaluating and protecting Institute intellectual property;
- identifying and developing commercially relevant R&D initiatives;
- assessing the potential for commercial government fund sources; and
- representing the Institute in negotiations for new commercial ventures.

The successful appointee will report to the Director of the Institute, and join the senior management team.

Candidates are expected to have experience in the national and international medical/biotechnological industry at a senior strategic level, in successfully negotiating research-based commercial ventures, and have appropriate scientific experience in an area of interest to the Institute.

Salary package, including incentive scheme, will be commensurate with responsibility and scope of the position, and experience of the person. The initial position is for three years.

Applications, including the names of three professional referees, to be forwarded to:

The Manager, Human Resources  
The Walter and Eliza Hall Institute of Medical Research  
Post Office, Royal Melbourne Hospital Victoria 3050 Australia  
Closing date: 4 June 1999.

Further information at [www.wehi.edu.au](http://www.wehi.edu.au)  
Email: [leadership@wehi.edu.au](mailto:leadership@wehi.edu.au)  
Fax: 613 9347 0852



THE WALTER  
AND  
ELIZA HALL INSTITUTE

Mastery of Disease Through Discovery

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP THE UNIVERSITY OF BRITISH COLUMBIA BIOTECHNOLOGY LABORATORY

Two Postdoctoral positions with funding for two years are available in the Biotechnology Laboratory at the University of British Columbia. The Biotechnology Laboratory is an interdisciplinary facility established 10 years ago at the University of British Columbia by Nobel Laureate **Michael Smith**. Its mandate is to foster the development of biotechnology through an interactive approach to problems in human, animal, plant, and forest biotechnology and in fermentation and process engineering. The research will focus on the inhibition of surface expression of MHC Class I molecules by cytolytic T cells of tumours. Applicants for this position should hold a Ph.D. with a background in (a) molecular biology, (b) cell biology, (c) transgenic technology, or (d) immunology. Experience with mammalian cell culture and immunological techniques is essential. Applicants should send, no later than July 15, 1999, a curriculum vitae and the names and addresses of three references to: **Dr. Wilfred A. Jefferies, Biotechnology Laboratory, The University of British Columbia, 6174 University Boulevard, Room 237, Vancouver, British Columbia V6T 1Z3 Canada. FAX: 604-822-6780.** *UBC hires on the basis of merit and is committed to Employment Equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

Four POSTDOCTORAL RESEARCH POSITIONS are available effective September 1, 1999, to study (A) the induction and expression of brain metallothionein; (B) ubiquinone and mitochondrial disorders of aging; and (C) opioid receptors and analgesic actions of melatonin. Extensive research accomplishments in receptor characterization; signal transduction mechanisms; oxidative stress and apoptosis; molecular biology techniques; and regulation of signaling pathways by reactive oxygen species are required.

Please send a hard copy (no e-mails) of a complete curriculum vitae, three letters of recommendation, and a precise and comprehensive narrative describing research aspirations, accomplishments, interests, and goals to:

**Manuchair Ebadi, Ph.D.**  
Professor and Chairman Designate  
Department of Pharmacology and Toxicology  
University of North Dakota  
School of Medicine and Health Sciences  
501 North Columbia Road  
Grand Forks, ND 58202-9037

*Equal Opportunity Employer.*

**POSTDOCTORAL FELLOW POSITIONS** available immediately for recent Ph.D.'s or M.D.-Ph.D.'s with experience in molecular genetics/molecular biology/cell biology/protein chemistry. Research, as part of a highly interactive group, involves identification of molecular and biochemical mechanisms of neuronal degeneration in disorders of motor neuron. Send curriculum vitae and names of three references to: **Dr. Teepu Siddique, Department of Neurology, Tarry 13-715, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. FAX: 312-908-0865.** *Equal Opportunity/Affirmative Action Employer; minorities and women encouraged to apply.*

### POSTDOCTORAL POSITION MOLECULAR CELL BIOLOGY Washington University School of Medicine

Position available to study regulation of cell surface receptors/endocytosis and the role of the ubiquitin system. Experience in molecular/cellular biology and/or biochemistry required. Send curriculum vitae to: **Alan L. Schwartz, Ph.D., M.D., Box 8116, Washington University School of Medicine, St. Louis, MO 63110. E-mail: schwartz@kids.wustl.edu.** *An Equal Opportunity/Affirmative Action Employer/Minorities/Females/Disabled/Veterans.*

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP PROGRAM IN STRUCTURAL BIOLOGY NATIONAL CANCER INSTITUTE Protein Engineering/Antibioterrorism Research

A Postdoctoral position is available for a recent Ph.D. to work on one of the following projects: genetic, biochemical, and biophysical studies of the mechanism by which *E. coli* maltose-binding protein (MBP) influences the folding and solubility of its fusion partners; engineering of MBP to endow it with affinity for additional ligands; developing a genetic selection or screen for TEV protease activity *in vivo* and using it to identify mutants with improved properties; or biochemical characterization of *Yersinia pestis* effector proteins and identification of their targets in mammalian cells. Further information about the ongoing research activities of the Protein Engineering Group can be found at the website: <http://nmrweb.ncifcrf.gov/abl/msl/waugh.html>. Applicants must have a solid background in a related scientific discipline, a good publication record, and strong recommendations to be considered for this Fellowship. The salary range for this position is \$29,000 to \$36,000. Please send a cover letter and curriculum vitae (no telephone calls, please!) to: **David S. Waugh, Ph.D., Protein Engineering Group, Macromolecular Structure Laboratory, NCI-Frederick Cancer Research and Development Center, P.O. Box B, Frederick, MD 21702.**

### POSTDOCTORAL FELLOWSHIP IN BIOSPHERE-ATMOSPHERE INTERACTIONS

A Postdoctoral position is available at the University of Michigan Biological Station (UMBS) AmeriFlux site to conduct research on biosphere-atmosphere interactions using stable isotopes. We seek an individual to join an interdisciplinary team whose research combines eddy correlation flux measurement techniques above the canopy with measurements of forest ecophysiology, with the goal of establishing the long-term landscape-level carbon exchange dynamics and relating them to climatic and ecophysiological forcings. The successful candidate will use stable isotopes to evaluate mechanistic explanations of observed net ecosystem exchange patterns and provide a bridge between ecosystem and regional carbon flux efforts. Salary will be in the range of \$40,000 per year. Please send curriculum vitae, statement of research interests, and the names and e-mail addresses of three references to: **Dr. James A. Teeri, University of Michigan Biological Station, 1111 Natural Science Building, 830 North University Avenue, Ann Arbor, MI 48109-1048. E-mail: jateeri@umich.edu.** Information about UMBS can be found at website: <http://www.umich.edu/~umbs/>, and about AmeriFlux at website: <http://www.esd.ornl.gov/programs/NIGEC/>.

## POSITIONS AT HARVARD

**POSTDOCTORAL POSITIONS** available in the molecular regulation of pulmonary inflammation in the laboratories of **Joseph P. Mizgerd** or **Claire M. Doerschuk**. Supported by an NIH Training Grant. Please send curriculum vitae, statement of goals, and names of three references to: **Claire M. Doerschuk, M.D., Physiology Program, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115. FAX: 617-432-3468; e-mail: cdoersch@hsph.harvard.edu.**

## POSTDOCTORAL RESEARCH ASSOCIATE

Position available to study immunochemical and cellular aspects of mucosal immunity. Experience in cellular immunology required. Background in molecular biology is also desirable. Send curriculum vitae and names of three references to: **Dr. Paul C. Montgomery, Professor and Chair, Department of Immunology and Microbiology, Wayne State University Medical School, 540 East Canfield Avenue, Detroit, MI 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**RESEARCH ASSOCIATE.** The Genomation Laboratory in the University of Washington's Electrical Engineering Department seeks a **POSTDOCTORATE** to pursue interdisciplinary work in automation of DNA studies and processes in support of the Human Genome Project. This is an opportunity to contribute to an exciting project and learn about a rapidly growing interdisciplinary field. Applicants must have earned a Doctorate in physics, engineering, or closely related field by the date of appointment. Successful applicants will be expected to have or acquire knowledge in design and optimization of mechanical, electrical, and optical systems; controls and programming; molecular biology and procedures such as PCR, sequencing, screening. Microfluidics and heat transfer are also useful. The researcher would work closely with undergraduate and graduate students, research staff, and industrial partners in pursuit of automated fluid sample handling and preparation of submicroliter biochemical reactions. See website: <http://rcs.ee.washington.edu/GNL> for more details. Members of our group have had formal training in electrical engineering, physics/engineering physics, biochemistry, bioengineering, chemistry, and mechanical engineering. Send résumé and three references (names, addresses, telephone, e-mail) to: **Dr. Deirdre Meldrum, Department of Electrical Engineering, University of Washington, Box 352500, Seattle, WA 98195-2500.** *The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL/RESEARCH ASSOCIATE Subdiscipline: Immunology, Transplant Immunology, Cellular and Molecular Biology

A Postdoctoral/Research Associate position is immediately available to study the mechanism of xenograft rejection and tolerance. Candidate should have a Ph.D. degree. Experience in cellular and transplant immunology, including T cell culture techniques, and molecular biology is essential. Interested candidates should send their résumé with at least three references to: **Rush- Presbyterian-St. Luke's Medical Center, Muhammad Mohiuddin, M.D., 1653 West Congress Parkway, Chicago, IL 60612. FAX: 312-942-3212; e-mail: mmohiudd@rush.edu.** *Equal Opportunity Employer/Minorities/Females/Disabled/Veterans.*

## GLOBAL OPPORTUNITIES

### PROFESSORSHIP THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY Department of Biochemistry

The Department of Biochemistry invites applications for a Professorship. Applicants should be established scholars in a Professorial capacity, with demonstrated academic leadership qualities.

The Department is strong in the following areas: (a) cellular biochemistry, (b) biotechnology and medicinal biochemistry, and (c) macromolecular structure and protein design. Applications are encouraged from candidates with expertise in the application of knowledge from these areas to the field of medicine. Teaching responsibilities include undergraduate and graduate courses.

Starting salary will depend on qualifications and experience. Fringe benefits including medical and dental benefits, annual leave, children's education allowance, and assistance in housing will be provided where applicable. Initial appointment will normally be on a three-year contract; immediate tenure may be considered for appointment at Professorial level. A gratuity will be payable upon successful completion of contract. Reappointment will be subject to mutual agreement.

Applications/nominations should be sent with a curriculum vitae, together with the names and addresses of three referees, to: **The Chairman, Biochemistry Search Committee, Department of Biochemistry, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong. FAX: 852-2358-2765** before 30 September 1999. Further information can be found in the website: <http://www.ust.hk/>.

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately to study mechanisms by which TCR-reactive T cells control autoimmunity (*JEM* 184:1609; *JEM* 185:1725; *Ji* 161:6585). Send a curriculum vitae and names of three references to: **Dr. Vipin Kumar, La Jolla Institute for Allergy and Immunology, 10355 Science Center Drive, San Diego, CA 92121. E-mail: vipink@liai.org.**

## GLOBAL OPPORTUNITIES

### TENURE-TRACK FACULTY POSITIONS DEPARTMENT OF LIFE SCIENCES Ben Gurion University, Beer Sheva, Israel

The Department of Life Sciences at Ben Gurion University (BGU) will fill three to four tenure-track positions over the next two years. Successful applicants are expected to mount independent research programs, generate funding, and be committed to undergraduate and graduate teaching. They will participate in appropriate basic undergraduate courses (taught in Hebrew) and develop advanced courses in their fields. The Department ([website: http://www.bgu.ac.il/life/](http://www.bgu.ac.il/life/)) has 29 faculty members with diverse research interests, and strong collaborations with other units in the University. Together with these units, a critical mass exists or will be created at BGU in each of the areas in which we will hire.

Fields of interest: (1) Plant ecology. Population and community plant ecology preferred, but all Plant Ecologists are invited to apply. The candidate will teach undergraduate courses in plant systematics and/or botany. (2) Plant physiology, with emphasis on plant adaptation to stress. The candidate will teach undergraduate courses in plant physiology and/or botany. (3) Protein structure, particularly protein crystallography. The candidate will participate in teaching in biochemistry and structural biology. (4) Cell biology. A scientist utilizing advanced microscopic techniques is preferred. The candidate may work in neurosciences or mechanism of differentiation, and accordingly participate in basic courses in cell biology, physiology, developmental biology, and/or neurosciences, as well as an advanced course in imaging techniques.

Send applications, including cover letter, curriculum vitae, statement of research interests, and names of five referees, to: **Prof. David Chipman, Chair, Department of Life Sciences, Ben Gurion University, P.O. Box 653 Beer Sheva, Israel.** Review of applicants will begin July 1, 1999, and positions will remain open until filled. Starting date negotiable.

## FACULTY POSITIONS

Our Institute is seeking highly qualified applicants for **ASSISTANT/ASSOCIATE PROFESSOR** or **PROFESSOR**. Preference will be given to Investigator specializing in immunology, molecular/cellular biology, or protein chemistry as well as a strong interest in cancer, immunological disease, or aging for vaccine development and/or new drug development from Chinese herbs. Candidates should have a Ph.D. degree and three years of postdoctoral training. *Applicants must be Taiwan citizens.* Applicants should provide a brief statement of research interests and plans, curriculum vitae, bibliography, and at least two letters of recommendation by 15 July 1999 to: **Dr. R-T Wu, Director, Institute of Biopharmaceutical Science, National Yang-Ming University, Sih-Pei, 11221, Taipei, R.O.C. E-mail: rtwu@ym.edu.tw.**

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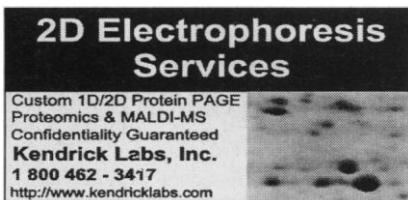
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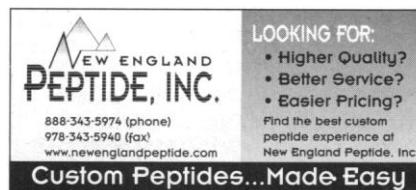
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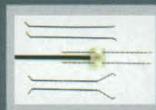
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